

**Antonio Rigozzi / Emily Wisnosky /
Brianna Quinn (Eds.)**

The proceedings of the 2017 Macolin Anti-Doping Summit

**A fresh look at the science, legal and policy aspects
of anti-doping**

Colloquium

Editions Weblaw, Bern 2017

O	Codex
I	Commentatio
II	Colloquium
III	Dissertatio
IV	Doctrina
V	Liber amicorum
VI	Magister
VII	Monographia
VIII	Thesis
IX	Scriptum
X	Anthologia

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Abbreviations

AAF	Adverse Analytical Finding
ABP	Athlete Biological Passport
ADAMS	Anti-Doping Administration and Management System
ADO	Anti-Doping Organization
ADRV	Anti-Doping Rule Violation
BASPO/OFSP	Swiss Federal Office for Sport
CAS	Court of Arbitration for Sport
CCES	Canadian Centre for Ethics in Sport
CIES	International Centre for Sports Studies
DCO	Doping Control Officer
ECJ	European Court of Justice
EPO	Erythropoietin
FIBA	International Basketball Federation
FIFA	Fédération Internationale de Football Association
FINA	Fédération Internationale de Natation
HGH	Human Growth Hormone
IAAF	International Association of Athletics Federations
ICAS	International Council of Arbitration for Sport
IF	International Federation
iNADO	Institute of National Anti-Doping Organisations
IOC	International Olympic Committee

IPC	International Paralympic Committee
ISO	International Organization for Standardization
ISTI	International Standard for Testing and Investigations
ITA	Independent Testing Authority
MRPL	Minimum Required Performance Levels
NADO	National Anti-Doping Organization
NOC	National Olympic Committee
NSAID	Non-Steroidal Anti-Inflammatory Drug
PILA	Swiss Private International Law Act
RTP	Registered Testing Pool
RUSADA	Russia Anti-Doping Agency
SAIDS	South African Institute for Drug Free Sport
SNSF	Swiss National Science Foundation
TUE	Therapeutic Use Exemption
UCI	Union Cycliste Internationale
UEFA	Union of European Football Associations
UKAD	UK Anti-Doping
USADA	US Anti-Doping Agency
WADA	World Anti-Doping Agency
WADC	World Anti-Doping Code

I. INTRODUCTION COMMENTS AND ACKNOWLEDGMENTS

This book sets forth the proceedings from the inaugural (or shall we just say first in case we decide not to do it again) 2017 Macolin Anti-Doping Summit, something we are (now) very happy came to fruition.

The Summit was put on in connection with the World Anti-Doping Code Commentary Project, a research project hosted at the University of Neuchâtel and supported by a grant from the Swiss National Science Foundation to create the first article-by-article commentary of the World Anti-Doping Code¹. This Commentary aims to support the effort to harmonize anti-doping efforts and enhance the system of anti-doping regulation worldwide by providing a central reference point for the interpretation of the Code.

Consistent with this fundamental aim of the WADC Commentary Project, the idea behind this book is to provide access to the discussions and ideas exchanged throughout the proceedings, for the benefit of the stakeholders who seek to improve the regulation of doping in sports, and to the athletes who are at once the intended benefactors and disciplinary targets of anti-doping regulation. While the quality of the presentations would certainly have deserved a more scientific publication, with comprehensive footnotes and references, we have attempted to keep the frank and conversational tone that was present throughout the Summit and we have therefore presented it as a lightly-edited transcript. Basically, we would like to have in these proceedings an accurate record of not only what was presented at the Summit but also the valuable input from all those who attended and contributed with interesting questions and remarks. Slides or images were included only to the extent that they were necessary to understand the content of the discussions, footnotes were added only to provide a reference for the materials and cases actually cited or discussed and to introduce the speakers and participants who asked questions or made remarks.

¹ The Commentary of the World Anti-Doping Code (authored by Antonio Rigozzi, Ulrich Haas, Marjolaine Viret, and Emily Wisnosky) is currently in production, and will be published by Oxford University Press.

And now a few words about the 2017 Macolin Anti-Doping Summit, itself. The Summit was held at the Swiss National Sports Centre in Macolin, Switzerland over two days on 28 and 29 April 2017. In addition to housing the Swiss Federal Office of Sport, the Swiss National Sports Centre is the training hub for Swiss sports. It is also home to the Swiss Federal Institute of Sports (*Haute école fédérale de sport de Macolin*) which is one of Switzerland's premier further education facilities devoted to sports, offering Bachelors and Masters degrees, as well as part-time study opportunities. In his welcome address, HEFSM's President, Mr Walter Mengisen shared with the Summit's participants an overview of the undertakings of the institution.

Coming out of the Summit, we truly feel that the collaboration between athletes, scientists, lawyers and anti-doping professionals was a valuable contribution to the field of anti-doping. Indeed, with snow falling on the first day it was certainly easier to be inside, but even with the sun shining on the second day (as anticipated by Mr Mengisen at the end of his speech) the discussions were interesting enough to make up for being stuck inside.

Finally, we would like to take this opportunity to once more thank our partners, whose support made this Summit possible:

- The Federal Office for Sport (BASPO/OFSP) – The Swiss Federal Office for Sport encourages sport and physical activity throughout Switzerland, emphasizing its importance and positive role within society. It serves as a centre for career development and further education, for those working in the sports industry, as well as a centre of further study in the domain of sport. In addition, it strives to put in place the optimal conditions for training for athletes who compete at the national and international level².
- The Swiss National Science Foundation (SNSF) – Mandated by the federal government, the SNSF supports research in all academic disciplines, from medicine and engineering sciences to social science and law. The WADC Commentary project is one of the many projects that the SNSF supports based on an independent competitive system designed to encourage outstanding researchers

² For more information, <http://www.baspo.admin.ch/fr/home.html>.

with a view to contributing and integrating Swiss research at the highest international level. The SNSF is Switzerland's foremost research funding organisation and supports approximately 8,500 researchers every year.

- The Faculté de droit of the University of Neuchâtel is one (of the nine) law schools in Switzerland. It has been a pioneer in sports law and offers a specific curriculum for Master students interests in sports law. University of Neuchâtel served as the host of this Summit, and took the lead on the organizational and logistics aspect of the Summit, a task for which we are extremely grateful. In particular, we would like to thank the office of training (*droit formation*) at the law school for their support, patience, and critical role in the success of this Summit.
- The International Centre for Sports Studies (CIES) – CIES is an independent study centre located in Neuchâtel, Switzerland. It was created in 1995 as a joint venture between FIFA, the University of Neuchâtel, the City and State of Neuchâtel. Using a multi-disciplinary approach CIES provides research, top-level education and consulting services to the sports world with the aim of overcoming the complexities of sport in today's society and improving how it is governed and managed across all sport.
- Antidoping Switzerland Foundation – In its own words:

Since 1 July 2008, the Antidoping Switzerland foundation has been the independent centre of excellence for fighting doping in Switzerland. Since January 2016 Antidoping Switzerland has been fully certified in accordance with the ISO 9001:2015 quality management requirements.

Antidoping Switzerland receives its funding from the Confederation and from Swiss Olympic. The foundation provides services based on service contracts submitted by Swiss Olympic and the Federal Office of Sport. These service contracts form the basis for funding and define the goals of Antidoping Switzerland. The Antidoping Switzerland foundation is a non-profit organisation with no commercial aims. Any secondary activities are carried out with the sole aim of achieving the foundation's main purpose – to make a significant contribution towards

fighting doping in sport, based on recognised national and international guidelines and directives³.

Finally, this book would not have been possible without the generous and impressive contribution of Mrs Susan A. McIntyre, RPR, CRR, QRR, of Ambassador International Reporting Ltd, based in London, England, who so graciously agreed to attend the Summit and prepare a transcript that served as the basis for this book. The editors would also like to warmly thank Ms Charlotte Frey, who provided invaluable assistance with the production of these proceedings. We also wish to thank the publishers of Commentary of the World Anti-Doping Code, Oxford University Press, who produced the excerpt of the WADC Commentary for distribution to our Summit guests.

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DAY 1 – FRIDAY 28 APRIL 2017

³ <http://www.antidoping.ch/en/general/antidoping-switzerland-foundation>.

II. THE «SCIENCE» ASPECT

[The first day of the conference began with a session, chaired by Professor Martial Saugy, with presentations and resulting discussions on various scientific aspects of anti-doping regulation.]

1. Session introduction: Professor Martial Saugy⁴

PROFESSOR SAUGY: Thank you, Antonio, for the invitation. I'm happy to be here in front of so many lawyers and some colleagues. Thank you, Walter, also for the invitation in this marvellous place. It is always a pleasure to be here.

How to make better use of experts in doping matters? I think that this question shows that there is a need to improve the communication between the experts and the lawyers. This is absolutely clear and mandatory today for a fair application of the 2015 WADA Code.

I want first to make a preliminary remark. You know that I am the former director of the anti-doping laboratory in Lausanne, and I can state here that the level of competence of the anti-doping laboratories is very high. I began with mass spectrometry with my colleague here, my mentor, Laurent Rivier. We were using mass spectrometry, in biology, in legal medicine, in clinical chemistry, and I can tell you that the standards in the anti-doping laboratories in this field of expertise are very high in comparison to all these other laboratories we were working in. Of course, I can also say that if the anti-doping laboratories are good, they need to receive the right samples to be analysed.

They need to receive the good samples, collected at the right time and on the right athlete in order to be able to provide the best interpretable results.

Today, the communication between the experts and the lawyers has also to be improved on the Technical Documents and on the International Standards for Laboratories. The scientific experts for example, have to explain the differences between a decision limit, a reporting limit and the minimum requirement performance limits of the laboratory.

⁴ Director, Center of Research and Expertise in Anti-Doping Sciences, University of Lausanne.

These are the famous MRPLs which are sometimes misunderstood and so often confounded with thresholds.

The scientists have to explain those principles in such a way that the hearing panels understand exactly what is the meaning of a laboratory result and how it can be interpreted.

The analysis of traces of medications or substances in biological matrices is very complex. This is a quite difficult task to interpret, because today, as you certainly know, there are huge improvements in the technologies which allow an increase in the sensitivity of the detection by a factor of 1,000.

We may think that this makes the job of the anti-doping community much easier; but in fact, everything is much more complex in the interpretation. In fact, the understanding of the biological significance of those results is more difficult to explain than before. With the decrease of the limit of detection, the increase of the detection window, we still cannot give, for example, an answer to the questions: Does it come from a contaminated supplement or was that performance enhancing? Was this intake intentional?

To answer to some of these questions, it's a pleasure for me to introduce Professor David Cowan who, in this session, will give the scientist's perspective of the application of the new WADA Code. Professor David Cowan has been in anti-doping for many more years than me, even if he looks very young, and of course, he is famous as the director of the anti-doping laboratory in London, which was in charge of the anti-doping analyses for the Olympic Games in 2012. David, you have the floor.

2. A scientist's perspective: Professor David Cowan⁵

PROFESSOR COWAN: Thank you very much, Martial.

Good morning, ladies and gentlemen. It is a great privilege to be here today to share some of my thoughts with you. It is not that often that we have such an opportunity for getting scientists and lawyers to actually be in the same room when it is not a courtroom. Let's hope that we can get the interaction that is so important if we're all to do a better job in controlling doping in sport.

As Martial said, my role is to talk about the scientist's perspective on giving expert opinions in doping matters. What I always like first to do, though, is just to make sure, being an English speaker, that we are all speaking the same English.

Let's consider a few definitions first of all.

I'm going to plagiarise my good colleague Professor Francesco Botré, who likes to say: «Science is magic that works». What do we mean by that? Something that may be somewhat mysterious should still be explicable. Magic is something that we can't explain, but science we should be able to explain.

«Expert?» Well, I always like to refer to the Oxford English Dictionary when defining words. That is a good source of reliable definitions. Unhelpfully it says: «*One who is expert*». Fortunately, it goes on to say: «*or has gained skill from experience*» and «*one whose special knowledge or skill causes him to be regarded as an authority, a specialist*», as in expert evidence, expert witness.

On the face of it, it seems strange that you might have two experts in a hearing with different opinions. It is the role of the courts, of course, to determine which of the experts they find more persuasive. Whichever party calls the expert, the expert has to be a friend to the court. That is, they really have to be impartial. They're not always, we know, but they should be.

⁵ Co-Founder and Director, Drug Control Centre, King's College London.

It is a paradox because the expert is usually called by one party and that party is going to have words with that expert before they call them to get some idea about their thinking especially whether that expert might better support their case or not.

Nevertheless, when in the court, the expert has to change from being helpful to the prosecution or the defence, to being neutral. A very strange situation.

In the UK it was Justice Cresswell, in one of his judgments, who included some of his thoughts on the roles and responsibilities of the expert.

I hope you have access to this afterwards⁶.

I would refer you particularly to this second reference where he describes very clearly the roles and responsibilities of the experts as follows:

- [T]he expert witness's primary obligation is to the court [whatever form it may take];
- the expert witness requires to be independent, impartial and objective - this requires the expert witness not to be selective in the materials drawn upon to support the conclusions reached, and to take into account any matters which might be contrary to that conclusion;
- the expert witness should do nothing to compromise his integrity;
- an expert witness is entitled to, and probably should, charge a proper professional fee for their services;
- the fee should not be dependent upon the outcome of the dispute, nor should the expert witness seek or accept any other benefit over and above their normal fee and expenses;
- the expert witness should avoid a conflict of interest;

- the expert witness's work should be properly informed and done to a proper standard, having regard to all appropriate codes of conduct, codes of practice and guidelines;
- the expert witness should therefore have a high standard of technical knowledge and practical experience;
- the expert witness should keep up to date through work experience, and appropriate continuing professional development and training⁷.

In my opinion, this should be presented to every expert before they appear in a court. It should be made very clear to them that these are their roles and responsibilities.

I must say, I do rather enjoy the one that says: «An expert witness is entitled to, and probably should, charge a proper professional fee for their services». Nothing in life is free.

WADA have a somewhat strange element when it comes to the code of ethics and the experts. Somewhat paradoxically, I think, it says the following: «The laboratory shall not engage in anything that would question the scientific validity of work performed in the anti-doping programme»⁸.

That would imply that if you are from the WADA laboratory situation you can only be called by the WADA side, which might be the anti-doping organisation, the prosecution in the case. In my mind that is a paradox which is not the situation in other areas of forensic science.

«Science and the scientist». I always like to have some sort of quiz and, for this one, maybe we should keep the scientists in the audience out of it. Who is this famous scientist?

⁷ Robert Sutherland, Expert evidence: The role, duties and responsibilities of the expert witness in litigation, <http://www.terrafirmachambers.com/articles/ExpertEvidence-RoleDutiesandResponsibilitiesoftheExpertWitnessinCourtProceedings.pdf>.

⁸ EDITORS' NOTE: This reference is to the following provision: «The Laboratory should not engage in analytical activities or expert testimony that would intentionally question the integrity of the individual or the scientific validity of work performed in the anti-doping program» (International Standard for Laboratories, June 2016, Annex B, Section 4.1).

⁶ Factsheet 4: The «Cresswell» principles of expert evidence, updated 21 July 2000, <http://forensic-pc.com/documents/163584FAQ2.pdf>.

[indicating black and white photograph showing a portrait of a boy]

This is the scientist as a youngster. Excellent, Michael knows.

MICHAEL BELOFF QC: It is Einstein.

PROFESSOR COWAN: It is Albert Einstein. Thank you.

It was because of one of his quotes, in particular, why I wanted to show these pictures of him. He said: 'If you can't explain it to a six year old, you don't understand it yourself.'

[indicating two photos showing Albert Einstein at different ages]

Isn't that an amazing thing to do? As this presentation continues, we will see how well I do manage to explain to make it clear and convincing and how much I make it confusing and confounding.

Let's start with the relatively simple question as to whether we are dealing with a foreign or endogenous substance? Let's start with a foreign substance. That is one not normally produced in the body. It shouldn't be there. It seems nice and easy. Not normally produced by the human body. The laboratory simply finding it in a sample is sufficient for an adverse analytical finding.

Under the principles of strict liability, the athlete has to say something in their defence or they're guilty. So, it is *prima facie* evidence of guilt, unless of course it is a threshold substance. But it could be present in the sample because of contamination: administration of a contaminated supplement, or food/environmental contamination.

Mere presence, that's all the laboratory has to show qualitatively.

Is it an apple or is it an orange? Most of us can distinguish quite easily, and so can the scientist in the laboratory. Although because the scientist deals with things that are less visible than apples and oranges, they have to use technical equipment to do it, which might make it somewhat less clear. But, because of the WADA control system, this allows there to be a lot of reliance on the laboratory providing accurate analytical results. That is because it is such a well-controlled system.

WADA Technical Documents describe exactly how the standards are applied, exactly the performance that a party has to achieve, and there can be a reliance by the courts that

that standard has been met, unless there is an apparent departure from WADA's International Standard for Laboratories, when the burden of proof somewhat switches so that you have to prove that the laboratory analysis was accurate. So, on the surface it is accurate unless you can show there has been a departure from the Technical Documents.

It gets a bit more complex, though.

Is the substance prohibited at all times or only in competition? We know that in competition includes 12 hours before. «Well, I took it 13 hours before». is a good defence under the WADA Code. Can the prosecution prove that it was not taken 13 hours before? «Ah, I have a therapeutic use exemption». Has the athlete followed the therapeutic use exemption (TUE) requirements? Or perhaps he took a little more or a lot more than was permitted under the terms of the TUE. The expert can help with answering those questions.

Yes, qualitative identification used to be sufficient, but maybe not any more. A laboratory is now often asked to estimate the concentration. Of course, the reason is to help to answer those earlier questions. Could it have been a contamination? Could it have been covered by a therapeutic use exemption or not?

But a question we might have to ask ourselves is how reliable is that estimate to make a decision? It doesn't meet the same standards as quantified measurements in a sample. This is simply an estimate.

WADA helpfully described what they mean by contaminated product in their definitions: «A product that contains a Prohibited Substance that is not disclosed on the product label or in information available in a reasonable Internet search». So, a defence may be that the prohibited substance is not listed on the label and it is reasonable that you couldn't find out what was in it. The defendant did a search and as far as he could tell it was a reliable product.

The Code then has this reduction in the period of ineligibility based on no significant fault or negligence and particularly mentions a reduction of sanctions for specified substances or contaminated products for violations of Article 2.1, 2.2 or 2.6. So, we have a defence line that will actually mitigate the penalty.

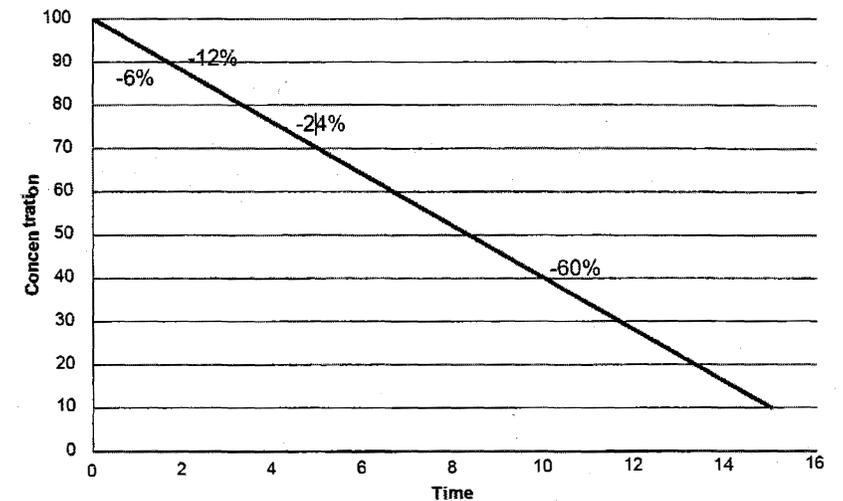
We know that dietary supplements are with us everywhere. They're here to stay. I thought, as a matter of interest, I should remind you how this availability of supplements really expanded when the Utah Senator Orrin Hatch in the US got the US Congress to pass the Dietary Supplement and Health and Education Act back in 1994 that actually changed US legislation very significantly. It defined the product as something to supplement the diet. Not a medicine, not a food, somewhere sitting in between. And it put the onus, the burden of proof, on the Federal Drugs Agency to show there's significant risk of illness if you took that single product. Not if that drug was in the product, but that whole product. So, if the FDA took action against one product you could simply change the formulation and the FDA would then have to prove that that reformulated product was harmful.

So, this is a very poorly regulated industry that, unfortunately, athletes are exposed to and so there is a real risk that the athlete might, unwittingly, take a dietary supplement and fall foul of the strict liability rules. But the athlete can also establish that he or she bears no significant fault or negligence. So, «I took it a year ago». «I took it several months ago». «Laboratory scientist, does this make sense or not?» «Expert, can you help us with this or not?» These are all now increasingly common questions.

Let's now look at how a drug leaves the body. Most of the time drugs are eliminated from the body by so-called first-order kinetics except for some drugs where it is zero order.

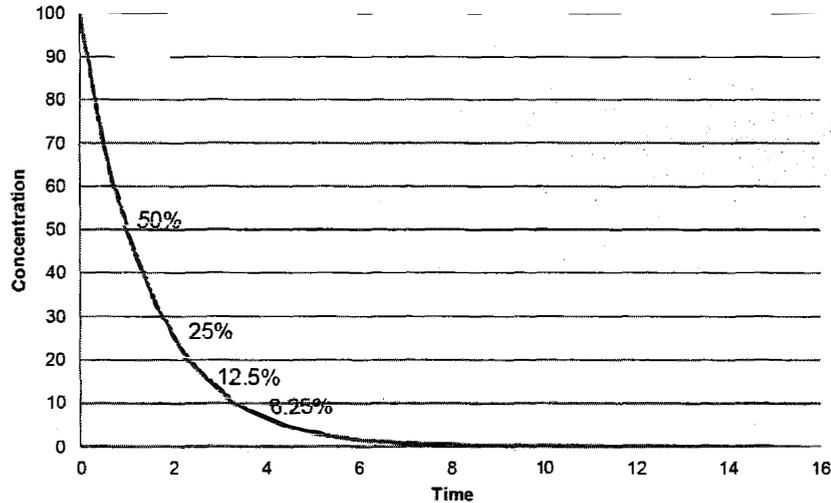
Maybe most of you last night experienced the issue of zero order kinetics when you had a drink or two. Alcohol leaves the body at a constant rate, that is a zero-order kinetic process. Let's see what this looks like.

It comes out in a straight-line relationship like this:



It goes down and down and down in a totally linear fashion. So, after one unit of time, let's say it's an hour scale on the horizontal x-axis, and let's say in one hour it has gone down 6%, that now 94% remains. In the next hour it will drop by 12% overall, and after four hours, by 24%, and in ten hours it will have dropped by 60% overall. So, you will have 40% left in the body.

But, as I said, most drugs are eliminated by first-order kinetics where there is an exponential drop:



Again assuming a time scale of hours on the x-axis and assume that in the first hour we drop to 50%. In the second hour we will drop to 25%. In the third hour, to 12.5%, to 6.25% in the fourth hour and so on. Instead of the hour scale it could be a day scale. It depends on the half-life of the drug, but with knowledge of the half-life that reduction in concentration can be predicted.

But it's not as easy as that, is it?

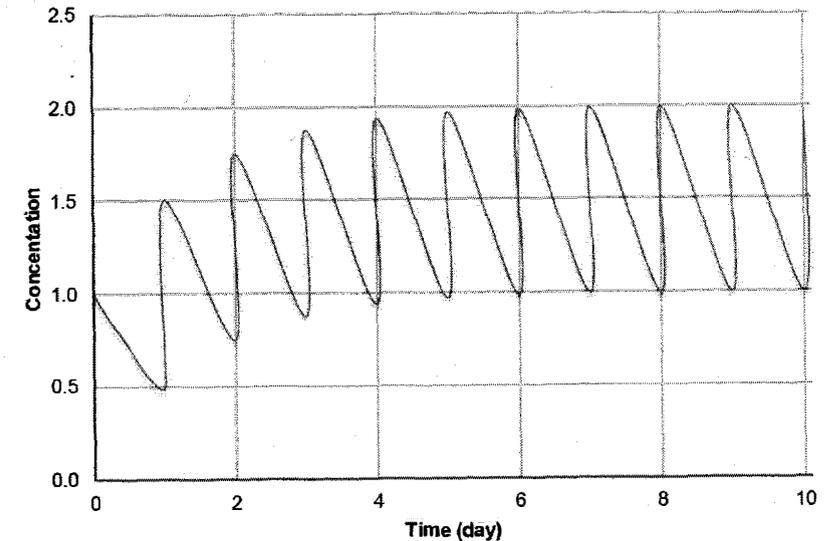
Whoever takes one dose in their lives? We always take multiple doses. So, with a bit of playing around with Excel on the journey here I managed to consider multi-dosing as well. This took me considerably more than five minutes to do. So, please do not ask me to do this in a hearing, I need longer than five minutes.

With multi-dosing, drug accumulation may occur. So, if we take the drug daily and assume it has a one-day half-life, we will find that on day two you are going to have 1.5 times the original concentration in the body, and on day 10 it is going to be twice.

But now let us consider that the drug has a five-day half-life and it is taken once a day, then on day 2 the concentration in the body will be 1.9 times the original concentration, and by day 10 it is 5.8 times the original concentration.

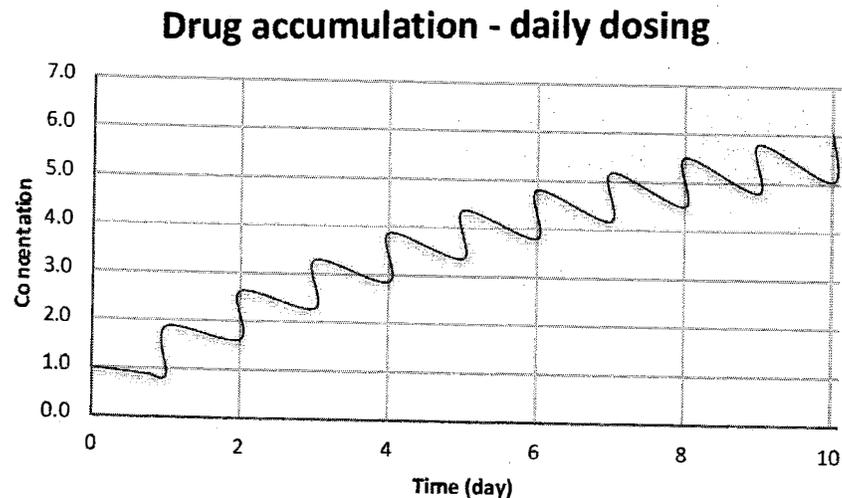
Let's look at it on a graph. It looks like this:

Drug accumulation - daily dosing



This is the one-day half-life example. Take the drug, one unit, at the end of the day it has gone down to half a unit. You now take another dose, it has gone up to 1.5 units. You halve it again, it's down to 0.75 units. Go up again, so it's 1.75, and then down to a half and up by 1. Interestingly you reach what we know as steady-state, where the concentration remains fairly constant, after about five half-lives, which in this case occurs after five days.

Now if the drug has a longer half-life (five-day half-life) and we still take a dose each day, it will look like this:



On the five-day pattern you take the dose, it hardly drops because it has a five-day half-life. You take another dose, it hardly drops. You take another one, it hardly drops. Even after ten days we have not reached steady state. So, the longer you take it, the more it is going to rise up to the steady state concentration. These are clearly very different scenarios. It is not simply, 'I took the drug once in my life'; it is qualitative. We are now having to explain a fairly complex scenario. 'Oh, and I had some sort of abnormality. I ended up with some other situation'. These are further claims that may be made. Indeed, the WADA Code has really created a very complex situation.

Sometimes it is much simpler. The rule says: threshold substance, identification required, quantification required. Is it bigger than threshold? Easy? There's a Technical Document that gives the specifications.

Unfortunately, we're required to give an uncertainty. 'What do you mean you're not certain?' It is not plain language, is it, it's technical language that says what is the plus/minus around the number. Where, in fact, we are above a value. That we can say very clearly, we're above the value, so does it really matter we have a little bit of wobble

on it when we're above the value? Perhaps an unnecessary complication forced on WADA by the metrologists who are involved in their advisory committees.

«But it's not naturally present». Or is it? It could be that it has been administered but we also produce it ourselves naturally. It is pseudo-endogenous; it is virtually identical to what we make ourselves. This is even more complicated. The administration is prohibited but yet we all have it in our bodies. So, how do we prove the administration? These are the typical examples in sport: testosterone, human growth hormone, erythropoietin, hCG and, perhaps, also nandrolone. How might we prove administration? Well, with testosterone we have isotope-ratio mass spectrometry. It may show us that it has been administered. It has a different «isotope» signature from ourselves. But a negative IRMS result does not prove no administration because it is possible that source of the testosterone that has been administered had the same isotope signature as that of the individual who administered it. Similarly, with nandrolone; it has been shown that both testosterone and nandrolone are out there in the marketplace with the same signatures as many of our natural isotope signatures.

In the past, we looked only at an individual against a population. Again, looking at testosterone, the T/E ratio was originally assessed against the athlete population. Looking at the parameters used in the athlete blood biological passport (HCT%, HGB, Ret%, OFF Score = $[HGB - 60 \sqrt{(Ret\%)}]$), these values of blood could be assessed against a population. Perhaps a bit of a blunt tool because we are all very different. However, what we like to do when we start applying statistics, whether it is the athlete biological passport or against the whole group population is to try to make the statistics group in a very symmetrical form. It is known as a Gaussian distribution, it is called a bell-shaped curve, and it features a common value, the commonest value, the modal value.

For example, what is the commonest height of the people in this room? Well, if we were only measuring it to the nearest centimetre we will probably find some commonality. If we measure the nearest millimetre we'll see some differences. So, how we do the measurement might affect what we mean by the commonest or modal value. So, not a very helpful value.

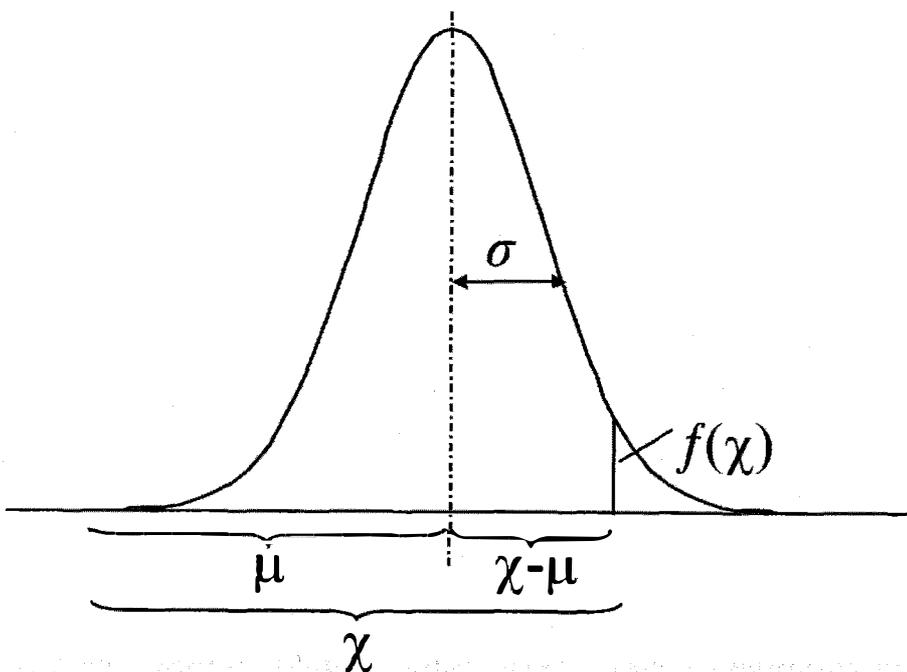
The average value is a better tool to use. We can get our average. What measure should we say? Our average weight? We could look at the average weight of the males and the

average weight of the females in this room and typically the females are going to be lighter than the males. But we know that if we look at the weight of an individual we can't use weight alone to say if they are male or female. The two populations overlap each other.

We can show how wide that distribution is, the weight of the males, the weight of the females, by the term called the standard deviation. The benefit of using this approach is we can start getting some probability. Lawyers here like to say: Is it more likely than not?

What is the balance of probability? Do we get comfortable satisfaction? In criminal cases, is it beyond reasonable doubt, in the British system.

You need to have some weight on that different evidence. The Gaussian or normal distribution looks like this:



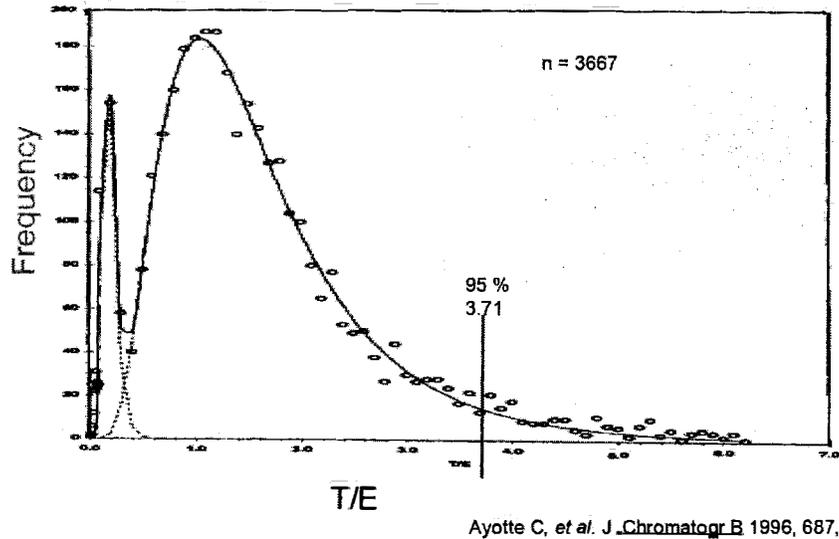
This curve can actually be described mathematically, so that's rather nice. This amazing measure, called the standard deviation (σ), is all we need to know. Once we know that standard deviation we can say how far to the right or how far to the left of the average any particular value goes and what is the chance that it represents membership of that population. It could be that the probability or chance is so small that it is unlikely that it fits anyone in the population of the Earth. But it does depend on the distribution looking like the graph above, that is represented by a Gaussian distribution.

Here are some example of the probabilities where κ represents the number of standard deviations from the average or mean of the distribution:

κ	2α	$(1-2\alpha)$
1	3.173×10^{-1}	68.27 %
2	4.550×10^{-2}	95.45 %
3	2.700×10^{-3}	99.73 %
4	6.334×10^{-5}	99.99 %
5	5.733×10^{-7}	99.99994 %
10	1.524×10^{-23}	100.00000 %

I remember presenting this in a court in Norway once, speaking in English until I said « 1.5×10 to the power of -23 ». The judge said, «Pardon?» The interpreter said, «Huh?» (He had been sleeping) and then I used the population of the Earth analogy and everyone was happy. But, although one can describe this mathematically as a possibility quite easily, unfortunately the data are often not normally distributed and biological data are typically not normally distributed. Nevertheless, it is sometimes possible to modify, or transform, the data mathematically to make it behave in a Gaussian way. This, I have to say, ladies and gentlemen, gets to the extent of my statistical knowledge. At that point you are going to have to call in someone more expert than I in order to be able to discuss the different ways of transforming the data and the implications of it in order to be able to predict the likelihood of a value being or not being from that population.

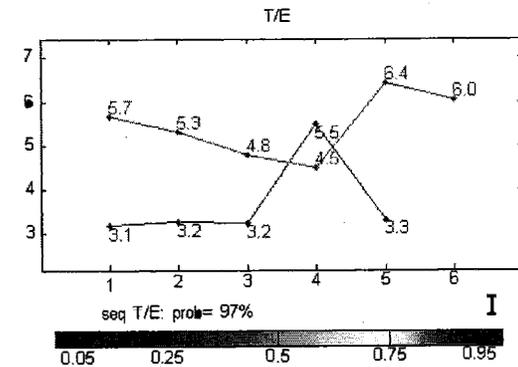
Below is a typical T/E distribution, and all of you can see it has two peaks, that is it has two most common or modal values:



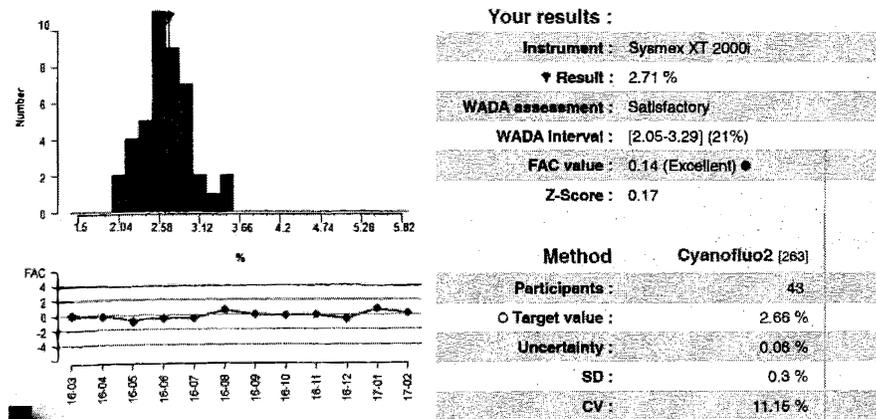
We now understand scientifically about why that is and we can actually put up a 95% probability with a T/E of 3.71 and we see how many people have a T/E value of 4 naturally. So, if you're defending an athlete who has a value sitting somewhere here [indicating around 4], you're going to want to say, «But that's a 1:1000 chance», or whatever it turns out to be, and maybe there was some reason for them to be perturbed to that value without them administering a prohibited substance.

Considering these two modes, we know one is typically for Caucasians and a number of Asians have this value of 0.2 because they have a genetic variation that actually affects how they handle testosterone. You see, I just changed the «magic, it just happens», into something where we can give an explanation. The fact, the observation, hadn't changed, it is just the knowledge that has changed. Isn't it clearer to you than if I simply say «that's how it is»? If one can give a scientific explanation it should always be clearer. But will I have time to give a clear scientific explanation? Will I have time in these very short hearings that we have available to do it?

Biological passport. It is much more sensitive to compare the athlete with themselves than against this big population. For example, look at one individual's weight today, look at it tomorrow, look at it next week, rather than against the population. A good way of doing this is the so-called Bayesian statistic: look at the values before and look at values afterwards for the same individual. I think everybody in the room is aware of the approach now that it has been adopted by WADA, the so-called Bayesian approach. Our friends in Lausanne did so much to develop that and get it actually being used in sport. It is not a new statistic, but it is a new application and it just shows how science and sport can work together very well. The WADA ADAMS has the means to display individual profile data such as T/E for the biological steroid passport:



One concern must be: how reliable are the data that we put into the passport? When it comes to the haematological passport, all WADA labs are controlled monthly by the Quality Control Centre of Switzerland organised by WADA. I'm sure it's a very good standard, the Swiss QC system and here are some data from my lab which actually the Swiss grade as excellent and WADA grade as satisfactory.



As Martial already said, WADA requires work to be of a very high standard. I work with many different laboratory scenarios apart from sport and I know that this standard that is required for sport is a very high one and I know that the great majority of the WADA accredited laboratories meet that very high standard. We should be proud of this and I feel that it should be publicized, because otherwise you get into a courtroom and there's some unfounded doubt against the reliability of the science that first needs to be dealt with.

The Prosecutor's Fallacy. I'm sure everybody knows about this. We have to be careful when we simply use the Gaussian statistic to actually make conclusions. The proposition on the basis of those statistics is that the athlete is guilty of taking a prohibited substance against the alternate proposition that the athlete is innocent of taking a prohibited substance. The great statistical fallacy, which was widely reported in the media several years ago in the UK, was over cot deaths, children dying in bed at night, and the question was did the mother kill the baby?

Now the probability of a cot death with one baby is extremely remote. The Home Office pathologist involved unfortunately said because it is remote once we can multiply the probability twice if two deaths occurred. When a mother, unfortunately, had both her babies die, she then was arrested and put into jail on the basis of this combined probability, that is the apparent remoteness of such a chance occurrence. This probability calculation was badly flawed because, as most statisticians will know, the fact that one

occurrence happened does not necessarily mean the other will be totally random. They were associated occurrences not linked to the mother maltreating her babies. There is a preponderance of, if one baby died, there's a greater likelihood for the second one to die in its sleep. As I have pointed out, you can't simply multiply those values.

As I said earlier, I quickly get to the limit of my statistical knowledge, but it illustrates the point that as experts we also need to know what we don't know.

For the experts, we have to have the ability to apply these data forensically, not clinically. In clinical work, you don't want a false negative, whereas in forensic work we don't want a false positive. These two approaches are coming from very different arenas. For the legal panel, unfortunately it is likely you are going to have to understand the Bayesian logic behind these biological passports to ensure that the data have been properly assessed.

To summarise, the defence, as I hope I have not just done, can make the case unclear and unconvincing by complicating and confusing. Also, as I hope I have done, I've tried to explain myself clearly, to show that I actually understood what I was talking about. Fortunately, panel chairs are experts in law, unfortunately not in science. Fortunately, they are always older than six years old, so they should be able to work out, to understand what the expert is trying to explain. They should require the experts to be clear, but the way to do that, in my opinion, is for the scientific issues to be reduced prior to hearings to avoid miscarriages of justice.

Thank you for your attention.

3. A lawyer's perspective: Dr Marjolaine Viret⁹

DR VIRET: Thank you, Martial.

I don't want to repeat Antonio's words, but I would like to say that I'm really happy that we are all here today in Macolin. [Microphone adjustment] I'm more than six years old, but not much taller than that, apparently.

I was saying I'm really happy that we are all here and I'm sure I didn't have as much a role to play in the organisation as my colleague Emily, but I think we have achieved a great attendance, great speakers, but also great participants and I really look forward to the discussions today and tomorrow.

Now to continue. I realise I'm supposed to give the lawyer's perspective, but I think David may actually have been more legal than I was planning to be. That's all right, but you'll find some of the same issues re-discussed or maybe presented from a different perspective.

I would like to focus on and maybe take a closer look at two commonly-held views. The first is that the adverse analytical finding is straightforward and an absolute proof of an anti-doping rule violation. The second, maybe a bit more procedural one, is that legal panels and our experts are all recognised and experienced professionals in their field, so they are by definition well-armed to deal with expert evidence in scientific matters.

Expert evidence is often seen as embodied by a distinguished professor – like David or Martial – appearing in court and being exposed to cross-examination. In reality, any piece of evidence that addresses an observation on the facts of a case that requires some sort of specialist knowledge or some sort of specialist tool is expert evidence. This is true for the adverse analytical finding, even though the importance of this seems to be somehow minimised by hearing panels.

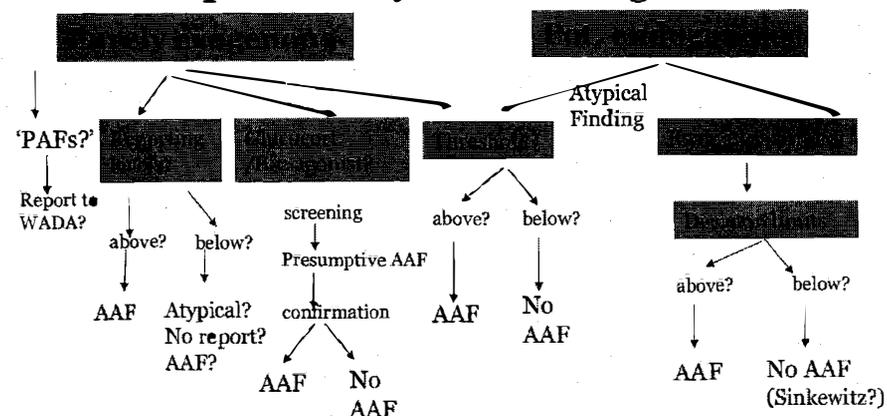
Here I have a quote: «An adverse analytical finding is, in general, an objective fact, whereas the conclusions to be drawn from deviations from a longitudinal profile require scientific judgement as to the significance of observed abnormalities»¹⁰. It is not a CAS

⁹ Associate, Bird & Bird; Attorney and Author, WADC Commentary Project; UCI Anti-Doping Commission.

¹⁰ UK National Anti-Doping Panel, *UKAD v. Tiernan-Locke*, decision of 15 July 2014, para. 12.

panel but it's the UK National Anti-Doping panel in an athlete biological passport case that associates an adverse analytical finding with an objective fact.

Landscape of analytical findings



You have heard a lot about that now from David. Maybe to give you an overview from the regulatory perspective – don't be afraid, I'm not going to go into all the details of the chart – this is just to show you the complexity behind a report of an «Adverse Analytical Finding» and the intermediate findings that have been introduced in order to account for that complexity:

So, there are «Atypical Findings» for endogenous substances, or potentially – what David refers to as «pseudo» – endogenous substances.

The «Presumptive Adverse Analytical Finding»; and I came across recently the «provisional analytical finding» (PAF) that was mentioned in a WADA statement with respect to clenbuterol and that triggers a report to WADA¹¹. This was new to me. It was an interesting new tool.

What does the term «Adverse Analytical Finding» mean? If you look even at the very short lab report that you receive at the beginning of a case, it's at least in part expert evidence. This becomes obvious when the test reports read something along the lines

¹¹ EDITORS' NOTE: This reference is to WADA, WADA statement on ARD documentary, 2 April 2017, <https://www.wada-ama.org/en/media/news/2017-04/wada-statement-on-ard-documentary>.

of this: «presence of metabolite is consistent with the administration of the prohibited substance stanozolol», which is that there was detection of a metabolite consistent with the administration of the prohibited substance. (Now I was told that I shouldn't pronounce it: stanozolol. Okay, I did it). This is an expert opinion on a possible cause behind the presence of the metabolite. So, this really raises the issue of the evidentiary value of an adverse analytical finding. What does it truly say about its causes?

Now this question is not normally part of the adjudication of cases under the WADA Code regime, because it is often assumed everything has been taken care of by WADA in the regulatory framework. So, an adverse analytical finding, from a legal perspective, is considered – for a finding of violation under Article 2.1 – it is 100% evidence of that violation. Then, when it comes to the sanction, for non-specified substances it amounts to rebuttably presuming that it results from an act of cheating, and if it is a specified substance it is rebuttably presumed to result from a significant fault on the part of the athlete.

Of course, in some instances, the evidentiary value of the adverse analytical finding becomes rapidly moot because, for example, the athlete admits to having ingested the substance and then the anti-doping organisation agrees with the explanation. These questions become relevant in the – relatively frequent – situation in which the causes for the adverse analytical findings are disputed or cannot be identified at all. This is very much where what could seem like purely technical details are, in reality, choices of anti-doping policy.

David explained somewhat the functioning of the thresholds previously, but what are threshold levels ultimately? They are always a policy balance between the risk of a false positive and a risk of false negative. So, how many innocents are we willing to catch to avoid missing part of the guilty? It is the same for substances that can be produced endogenously. For example, if you consider the value of the isoform human growth hormone test, assuming the test result is exactly at the decision limit. Now we are always talking about a figure that has been set by WADA, which is the specificity and which is very high. Respectively the risk of false positive is set at 1:10,000. What is important to understand is: this is not the likelihood of innocence. By innocence here I'm talking in WADA Code language, which means it is not the likelihood that there is no exogenous human growth hormone in the sample. Why it is this way? I'm not going to

explain the whole example here, but you can see it depends on a number of other factors. It depends on the test sensitivity. It depends on the prevalence, the base rate, of doping in the population you consider, and also on the multiplication of testing. So, for example, I did an example:

Illustration

- Test Specificity = 9'999:10'000 → 0.01% false positive rate
- Test Sensitivity = 30%
- Prevalence doping with r-hGH = 1%
- Conduct 100'000 tests
- You detect 300 true positives and 10 false positives

$$1:10'000 \bullet \neq 1:30$$

The specificity is given by the guidelines – now it is a Technical Document if I'm not mistaken – on human growth hormone. The sensitivities I have chosen, and I've also chosen a prevalence. If you conduct 100,000 tests you can calculate that you detect 300 true positives and 10 false positives which, in the end, means that if you have a positive in front of you, the likelihood of it being not a real case of exogenous growth hormone is not 1:10,000 but it is 1:30. So, that is to show how balances may also be required, for tests that try to discriminate between exogenous and endogenous origin.

Even for non-threshold, purely exogenous substances, the CAS panels always insist that this is, as David correctly said, a purely qualitative analysis and as soon as the substance is identified in the sample you have a violation under 2.1 that is established. But does that mean that the anti-doping organisations can totally dispense themselves from looking at the causes? Well there are some causes that are integrated in the regulations. We have here two categories of substances where that is the case. It is beta-2 agonists. That's, for example, the asthma treatment of salbutamol. There has been a recent case

*WADA v. Sundby*¹², to which I will return later; these have limits of daily authorised therapeutic usage in a day.

Maybe even more important: the glucocorticoids. This is a real issue currently because, obviously, only certain routes of administration are prohibited, which means that you can never detach completely the adverse analytical finding from its causes. So, now certain tests have been developed for certain substances: for example, for budesonine. Labs can now target a metabolite that is considered specific to the prohibited systemic administration. So, that allows to make a distinction between the routes of administration. But otherwise, there is just no scientific way of disproving the explanation of the athlete if an authorised route of administration is pleaded.

So, those are the cases in which the causes are already integrated in the system. Now there are other cases in which causality makes its intrusion without really being anticipated. We all know about the situation with clenbuterol. I included a recent extract from the WADA statement¹³ that was in reaction to the latest German documentary which summarises a little bit the situation on clenbuterol, and where it is seen as unreasonable to put the burden of proof on the athlete. And that means the case is closed on the basis of low clenbuterol levels consistent with contamination. The question is what other substances may be upcoming that may cause similar problems? Now there is the diuretic HCTZ, which is widely used to treat high blood pressure, for example, and so potentially contained in groundwater. You may be aware there have been several cases in which that has been discussed, some in which the athlete was exonerated and some not. I know we may discuss that during the panel, but I would like to point out in a recent paper in a scientific journal, of which Matthias Kamber was a co-author, in which there was identification of traces of HCTZ in ibuprofen medication that was

below the GMP pharmaceutical standards and that could cause a positive test in an athlete¹⁴.

So, those are for the contamination possibilities.

Now, possible solutions. What can we envisage in terms of solutions? Well of course there is a case-by-case management, much like what happened with the clenbuterol cases. Outside the regulatory regime cases will not be pursued even though, in theory – with clenbuterol not being a threshold substance – any adverse analytical finding could at best, for the athlete, give a finding of no fault or negligence. If we don't want to rely exclusively on crisis management, we'll focus on research that, rather than getting more sensitive, gets more sophisticated at looking at the causes of the findings. That is being done, for example, for clenbuterol to use hair to distinguish pharmaceutical use from contamination. That is ongoing. That is also an interesting path to go.

David talked about the athlete biological passport, so using individual rather than population-based baselines.

Then the question arises, of course, should, in certain cases, the sensitivity of the analysis be limited? The idea has always been that analytical science improves the more sensitive it gets, but at some point should there be more general reporting levels, substance-by-substance, or even introduce that through limits of detection? Of course, we also saw in David's presentation the obvious hurdle is that there is a one-point test, usually, and often we don't know – what David called the «elimination plot» – so the excretion curve. Again, unfortunately, this works against the athlete. Because if the concentration detected is high you can exclude contamination, but if it is low it can be either the result of contamination or the result of an intentional intake and you just happen to test the athlete right at the end of the detection window.

Something that came to my mind when preparing this presentation that is rather spontaneous: should – in certain predefined borderline zones – the burden of proof be

¹² CAS 2015/A/4233, *WADA v. Sundby*, award of 11 July 2016.

¹³ EDITORS' NOTE: This reference is again to WADA, WADA statement on ARD documentary, 2 April 2017, <https://www.wada-ama.org/en/media/news/2017-04/wada-statement-on-ard-documentary>.

¹⁴ Helmlin H J et al (2016) Detection of the diuretic hydrochlorothiazide in a doping control urine sample as the result of a non-steroidal anti-inflammatory drug (NSAID) tablet contamination. *Forensic Sci Int.* 267:166-172.

shifted back on the anti-doping organisation to show that this cannot be a result of contamination, rather than the other way around, as this is now the case?

In any event, what is essential is access to scientific evidence, and this is another use of expert knowledge. I mentioned here the «approximate concentration», which David already mentioned, and in particular the question of whether the approximate concentration is the right tool, because it is not completely precisely measured. The ratio between parent drug and the metabolite, something that I have seen in several recent CAS cases, this can provide very useful information corroborating or rejecting scenarios by athletes, because it gives more information on where we stand on the excretion curve than just concentration. Also it allows us to rule out sample contamination if a metabolite is recovered, which can be also an interesting indication.

Finally, of course – last but not least – verifying alleged sources, mainly through supplement testing. You may know, as per the International Standard for Laboratories, currently WADA labs can only analyse supplements at the request of an anti-doping organisation. There have been a number of recent cases in which that has been an issue before CAS. So, I haven't mentioned all the cases but I tried to identify here the main questions that lie behind these cases.

So, a first category of question is: what should properly be tested? Should we have the actual product tested, even if it has been obviously already manipulated? (Not manipulated in the sense of «tampering», but it has been touched and used by the athlete.) Should we require the same batch but a sealed product? What if the same batch is not available, same product but even if it's a different batch? And we know a certain batch can be contaminated and another batch may not be.

The second category of question is: by whom should the supplement be tested? Does it have to be a WADA-accredited lab? In which case currently the anti-doping organisation would need to instruct a lab. Can it be another lab? There have been cases in which athletes sent the supplements to other labs. Of course this then raises the issue of the reliability of the analysis. And there have been cases where the anti-doping organisation questioned that reliability.

The related question, the final category, is: who is responsible for asking for the testing, or who may do so? The athletes? That would be obvious, but currently that would have

to be a non-WADA lab, which then exposes the athlete to having the analysis challenged; which is a sort of a vicious circle. The results management authority, of course, and in certain cases it has been the CAS panel who had to intervene and instruct a supplement to be tested at the WADA-accredited lab.

So, one idea here, maybe, would be to formalise this into guidelines that would then also allow athletes to take measures when they are pondering supplement use. Typically the idea would be: when you buy a supplement, systematically buy a closed same-batch product that you keep closed in case something goes wrong. It would be useful to formalise what the expectations are when it comes to supplement testing.

What really matters, in my view, is that you are coherent on the requirements of proof versus access to evidence. Because if you place the burden of proof on a party in full knowledge that the party will never have the means to discharge that burden, then effectively you create a form of legal fiction. So, I think it is essential that anti-doping organisations realise that they need to be proactive and support legitimate efforts of the athletes to understand the origin of the substance.

Now to go into the part about dealing with expert evidence. There are two aspects I would like to address under the general heading «competence versus independence dilemma».

We know that independence is in everyone's mouth these days, so much so that you hardly want to pronounce it any more. But how are we concerned with the independence of experts appearing in doping cases?

David already introduced it a bit, but this is tied to the manner in which CAS panels accept fundamentally any expert evidence provided by the parties and then conduct the assessment of credibility, independence, very much as part of the overall evaluation of the evidence. This makes it very difficult to assess exactly what weight was placed on this factor.

The first situation I would like to highlight is: experts who have a connection to a party. I'm thinking, in particular, of situations in which WADA officials or employees appear as the scientific expert. Should this be acceptable?

What is the value of this? The last example is in the *WADA v. Sundby* case¹⁵ in which the WADA science director filed a report and was heard as an expert witness on the authorised use of salbutamol. The ambiguity of this is already visible if you read the award, because the CAS panel used the report and the explanations for their background on the wording of the prohibited list, and I quote: «*the stated intention of the rule maker*»¹⁶. So, this raises another issue, which I'll get back to later, which is an expert being asked to reply on issues of interpretation of legal rules. But here you have an expert who simultaneously expresses the intent of the rule maker (so WADA), who is a party to the case. The question is: is this an appropriate use of an expert witness? Because normally an expert will express his specialist opinion on an issue of fact or general scientific background, but not the intent of his employer on an issue of regulation.

So, what would be a solution? For example, when WADA is party to a case, this could be a party declaration and, if WADA is not party to a case, the CAS knows the tool of the «amicus curiae», which could be a useful way of conveying general background knowledge about the way regulations were planned and intended.

A second aspect, which I'm not going to go too deeply into because David also mentioned it, as you know there have been some questions around the interpretation of the Code of Ethics, in particular what it means (you already saw some of those extracts) to be asked not to engage into expert testimony that would «intentionally question» scientific validity of work performed in the anti-doping programme¹⁷.

¹⁵ CAS 2015/A/4233, *WADA v. Sundby*, award of 11 July 2016.

¹⁶ *Ibid.* at para. 104.

¹⁷ Section 4.1 of Annex B of the International Standard for Laboratories, June 2016, which provides that: «*Work to aid in forensic and/or legal investigations may be undertaken but due diligence should be exercised to ensure that the work is requested by an appropriate agency or body. The Laboratory should not engage in analytical activities or expert testimony that would intentionally question the integrity of the individual or the scientific validity of work performed in the anti-doping program*» and Section 4.2 of Annex B of the International Standard for Laboratories, June 2016, which provides that: «*The Laboratory shall not engage in any analysis that undermines or is detrimental to the anti-doping program of WADA. The Laboratory should not provide analytical services in a Doping Control adjudication, unless specifically requested by the responsible Testing Authority or a Hearing Body*»; but then, at the same time, you are also required to act as an independent expert giving scientifically valid expert testimony and not to be an advocate to either party, see Section 5.0 of Annex B of the International Standard for Laboratories, June 2016,

I think it is important to remove barriers and really recognise that labs are free to intervene in assistance of the panel rather than in support of a party, and that will only strengthen their scientific credibility, I think.

A last couple of issues before I close.

This is about the interplay between the legal panel and the experts. I considered two types of situations that may raise issues.

The first type is about experts that tend to step into the legal panel's «scope of competence», if you so wish. The first question here is: does the CAS panel need to be able to retain their own decision-making authority because it is their mission as a judge to be able to adjudicate the case? Currently can panels really, in all cases, detach themselves from expert opinions? It has been repeatedly stated that this is the case; thinking in particular of athlete biological passport cases, in which the «expert panel» has very much already given a lot of the solution to the CAS panel when they express their opinion on prosecuting the case.

A second point which would really merit addressing is: do CAS panels really understand what the opinion-grades expressed by experts mean? We saw previously in the lab expert report the «consistent with». You may find «highly likely» in other expert opinions. This would probably deserve to be formalised if you want to be able to translate in a reasoned manner what is being said into something that is useful for the standard of proof.

Finally, something I already mentioned, is CAS panels have tended to rely on expert opinion to interpret WADA technical rules.

I remember a recent case, I don't remember the reference, in which there was an expert agreement on the interpretation of a technical document and the CAS panel considered that because there was an expert agreement on the interpretation they need not consider it further. So, this is also an issue that merits discussing: how much in the realm of legal interpretation is given away in technical matters?

which provides that: «*If Laboratory staff is requested by either party or the tribunal to appear before an arbitration or court hearing, they are expected to provide independent, scientifically valid expert testimony. Laboratory experts should not be an advocate to either party*».

The other side of the question is legal panels stepping into the expert's scope of competence.

The first is: can CAS panels become their own experts? Sometimes there is a tendency to draw from background knowledge gained in prior cases. And there has been the idea of introducing panel members – as is being done in other hearing panels, in particular national or international federations' hearing panels – introduce panel members with medical or other scientific expertise. Personally, I think this is a bit double edged. Because it would have to be really clear that this is useful to **understand and evaluate** expert evidence. But to **replace** expert evidence through a specialised arbitrator, this in my view raises the issue of due process. Because then the other party would need to be able to reply to the expert arbitrator's views. I hardly can imagine how you could, for example, cross-examine the expert panel member.

Two last issues. The first one is that it perhaps needs to be repeated that there is no such thing as a «rule of precedent» on scientific issues. This is quite to the contrary. There have been cases in which scientific knowledge evolved between two cases and the decision had to be changed. So, it is dangerous to transpose previously decided scientific issues from one case to another, presumed similar, case. Even more so if it's in form of what I called here a «cross dispute expert import». I think we saw that in the *Lallukka* matter¹⁸, which was certainly very well meant in that case. That was the third of the human growth hormone cases, so there was *Veerpalu*¹⁹, *Sinkewitz*²⁰ which sort of reached opposite views on the decision limits, and then the *Lallukka* case. In the *Lallukka* case, the panel did not really have the benefit of expert opinion, mostly because the athlete declared that he could not afford an expert. Then so what the CAS panel did, they recalled the expert's findings made in the *Sinkewitz* case that the values were clearly abnormal, and then they said, «well, the *Lallukka* findings were significantly higher than those of *Sinkewitz*», and so they declared the expert findings applicable *mutatis mutandis* to

Lallukka. So, the panel prayed in aid expert evidence from a different matter with respect to a different sample belonging to a different athlete.

Normally, if you use expert evidence, the party should be given the opportunity to cross-examine the experts. So, here again, how is the CAS panel in a position to decide that an expert would have made the same findings on the facts of that different case?

To summarise a little bit my presentation.

The first point is that it's important to design technical rules and a regime of proof that act in a coordinated manner. I mentioned that for the burden of proof and the access to scientific data, so that we can optimise the use of science. Nowadays, there are many issues on which expert evidence is handled as part of the discussion on sanction, whereas the question is actually: are our findings truly still doping relevant at all? All matters related to the «causes» are still very much placed on the athlete. So, to what extent can we still justify this?

The second, and I think this is fundamental, expertise is given for the benefit of justice and not in service of a cause, as noble as the cause may be. So, we cannot allow that the balance of innocence and guilt is decided by the athlete's financial resources in access to experts. We can, of course, assess new solutions, whether to create expert pools attached to the CAS, but there are already tools available, like the possibility to appoint a tribunal-appointed expert, maybe to extend legal aid to the use of expertise.

Finally, and I think especially if 1 and 2 are realised, and if we develop an efficient interplay between experts and legal panels, we can probably abandon part of the standardisation of evidence that is very much at the root of the WADA Code regime and which we've already been forced to abandon, for example, in the clenbuterol cases. This, I think, without too much of the fear of the dreaded complications that we would drown the whole anti-doping system.

Thank you very much.

PROFESSOR SAUGY: Thank you, Marjolaine. I think we have time for one or two questions. Of course there will be some questions after, treated by the panel.

Yes, Ross.

¹⁸ CAS 2014/A/3488, *WADA v. Lallukka*, award of 20 November 2014.

¹⁹ CAS 2011/A/2566, *Veerpalu v. International Ski Federation*, award of 25 March 2013.

²⁰ CAS 2012/A/2857, *Nationale Anti-Doping Agentur Deutschland v. Sinkewitz*, award of 24 February 2014.

ROSS WENZEL: Ross Wenzel, Kellerhals Carrard.

One comment in respect of the summary case, and that was the [inaudible – microphone not used]; reference to the role of Dr Olivier Rabin (WADA science director) in *WADA v. Sundby*²¹ purpose for the regulation was why did WADA introduce a threshold? Why did it no longer require TUEs up to that threshold? And WADA also had in that case one of the leading experts on salbutamol for the scientific evidence, the excretion evidence, and that was Vibeke Backer.

So, that's just a comment, really.

The main question I've got is with respect to the slide where you said, I think, that notwithstanding the specificity at 1:10,000 for human growth hormone, that there was a possibility, based on 30% test sensitivity, of a 1:30 false positive. That's a sensational statistic and it's effectively concluding that the test isn't fit for purpose. What do you mean by test sensitivity? If you mean something other than measurement uncertainty, then what?

Measurement certainty is already taken into account in the specificity, so I would like you to run through how you get to that statistic of 1:30 false positives.

Because I remember at your last presentation, I think, you came up with a similar number for the athlete biological passport, sort of 1:2 cases is probably a false positive or something like that. So, I would just like a little more detail on that, because it is a very weighty conclusion that you came to.

DR VIRET: Well, I'm happy to run through the full example. With sensitivity I just mean the sensitivity of the test, so the pendant to specificity, which is basically the rate of false negative. So, yes, that's what sensitivity is.

PROFESSOR SAUGY: David, would you add something?

PROFESSOR COWAN: I was just agreeing with Marjolaine. It is a fairly well-used statistic, called «receiver operator characteristic curves», where you look at sensitivity and specificity as two descriptors. One gives, as Marjolaine said, the number of false

negatives, and the other is false positives. There's the conundrum: being really clear on the difference between those two.

DR VIRET: Just on your remark with respect to Olivier Rabin, for whom I have a lot of respect. If I'm correct, but correct me if I'm wrong, Olivier Rabin was heard as an expert witness, not as the representative of a party.

ROSS WENZEL: He was called as an expert. He filed a statement.

But could I come back to it, because I think this is a really important point and I'm still not sure that I understand. The test basically says and I'm going to put it very, very crudely and I appreciate that it could be phrased much more carefully but the test basically says if you're over the limits for kit 1 and kit 2 for men and women and, I know that this is crude, but there is a 1:10,000 chance that you would have those values, assuming that it's endogenous human growth hormone. The measurement to the analytical uncertainty is already taken into account in that formula, in the guidelines, now the Technical Document.

So, what is this sensitivity and how do you get down from 1:10,000 to 1:30? Because I still haven't understood it. It is certainly not an argument that has been made in any of the human growth hormone cases that I've done.

The other point, if I could just make one last observation with respect to *Lallukka* as well. If I understood, there was a suggestion that somehow it was unfair on the athlete because he didn't have an expert. I doubt that *Lallukka* could have found an expert to say that it was endogenous human growth hormone on the basis that not only did he massively exceed the kit 1 and kit 2 limits, but also he had a further test for human growth hormone where the values that he had were 20-fold different to the values when he tested positive. So, it was an absolutely staggeringly obvious case where the athlete agreed not to have a hearing, so I'm not sure I understood that point. But the point I'm really interested in is how you get down from 1:10,000 to 1:30 false positives based on this figure of 30%. I'm not sure where it comes from.

DR VIRET: As I said – I think clearly – the 30% sensitivity is a number that I assessed. I don't know the actual sensitivity of the test.

²¹ CAS 2015/A/4233, *WADA v. Sundby*, award of 11 July 2016.

I would assume that this is realistic for an anti-doping test. So, the example goes as follows, so you have a rate of...

ROSS WENZEL: I just have to say, when you say «sensitivity», do you mean analytical uncertainty, measurement uncertainty?

DR VIRET: No, I mean...

ROSS WENZEL: Where does the figure come from?

DR VIRET: The rate of false negative.

PROFESSOR COWAN: It's the positives you're missing. It's people who have used the drug and you're not catching them.

DR VIRET: It's the true positive that the test doesn't detect. So, with 30% you have a rate of 1:3 false negatives. So, the specificity is the reverse measurement. Every analytical test has to find a proper balance between those two conditions.

JEAN-PIERRE MORAND: Can you combine the exclusion of false negative? This is protecting the rate of true positives. I mean in fact that you are excluding positives effectively by that. You cannot increase the probability of having false positive when you exclude potentially false positive. I mean this cannot be correct. Because you are improving, let's say, the capability of the test not to have a true positive and you are mixing that and finding out that it increases the false positive. There is a wrong logic in that, I'm sure. Please comment.

PROFESSOR COWAN: My understanding of what Marjolaine was telling us is that the two do not equate to each other. They are not equals. 1:10,000 does not equal 1:30, clearly.

If I set a 1:10,000 probability of the normal population and you are so far out of the normal, the conclusion is that you have used something. Set it a bit higher and I'm going to miss more users than non-users. That's the basis of the sensitivity, setting the specificity too high, and the sensitivity will be too low, and vice versa.

JEAN-PIERRE MORAND: That does not increase the number of false positives. Thank you.

DR VIRET: Are we now arguing about what I showed here or about the sensitivity issue?

JEAN-PIERRE MORAND: I'm arguing because what you presented gave the impression that you could have 1 out of 30 false positives, which I understand is wrong. I mean it is the idea you gave.

DR VIRET: No, precisely not. What I was trying to say is: that people often believe the rate of false positive is the probability of innocence of the athlete.

PROFESSOR COWAN: Let me just add to that scenario.

DR VIRET: Is that right, that this is not the same?

PROFESSOR COWAN: The 1:10,000, where it gets misunderstood: I've got a population of 10,000, all innocent, and on the basis of your statistic one of them is going to be falsely positive. That's a misuse of the statistic, unfortunately, because it's not just a normal population, there are more circumstances to it than otherwise. When you set up the distribution, obviously you've got to use the right population to do it. When we did the biomarker test, set up the values for that, we spent a lot of effort.

We couldn't administer the drug to athletes yet we needed to see how people performed. We quickly discovered that sedentary individuals had different values from sporting people. So, we have to look at the right population. So, don't tell me the population of New York is the relevant one for sport as one statistician tried to quote to us. It has to be the right population. Unfortunately, it makes it more complex. Which is what our mission was to do, to say, «Look, it is not as simple as getting the numbers». I think this is what we were trying to achieve here. Don't just use the numbers. If the numbers, of course, are in the regulation, then it is easy for you because you can say that's what the regulation says. But where it is not promulgated in the regulations you have a dilemma to actually use those figures, assuming you are sitting in judgment, to see if are you persuaded by those numbers or not.

MICHAEL BELOFF QC: David, isn't this critical if one is applying, as you rightly said, balance of probabilities, or comfortable satisfaction, or beyond reasonable doubt? Anyone sitting on a panel wants to know: Well, what is the chance of it being a false positive? And then you have to decide whether it meets whatever the threshold is for the standard of proof. What's the bottom line that both of you are telling us on this? Are you saying it varies from segment to segment of the population?

PROFESSOR COWAN: Exactly that, Michael. It depends on more factors. If you just give me those numbers alone, that will affect the answer I give you. If you give me a bit more of a scenario I can be more helpful to you. That's the danger. And I think we're taking some of what is being presented here a bit into a different context. Which I think was Marjolaine's other point; it was taken from one case to another. Hopefully the panellists looked at more than simply what was written in the judgment and looked more into what was said during the hearing, but often that information is not available.

DR VIRET: I think this was all that the example is supposed to show, is that the risk of false positive does not give you a probability of innocence of the athlete. You need to factor in the prevalence of use of human growth hormone in the population and the sensitivity of your test.

MATT RICHARDSON: I'm going to try to summarise this very quickly.

What David said and what you also said about saying that 1:10,000 is the chance of innocence, I would agree with you on that, that's not a correct way of using that statistic. But what you have just done is also not correct. You cannot add the chance of a true positive and true negative and then simply take away the likelihood of the true positive.

DR VIRET: No, but that's not what I did.

Let me just run quickly through the example...

MATT RICHARDSON: The other thing is the prevalence of doping using that substance is also a gigantic estimate on your part, the 1% of the population that you used. I'm not quite sure where you could verify that, the prevalence of doping with rHGH.

DR VIRET: It's a figure. It's for the sake of the example. The idea was to show that if you do 100,000 tests, for example, in a year, by the mere conducting of 100,000 tests you will have got 10 false positives. Because you have 1:10,000 false positives, so times 100,000 this is 10 positives. And if you take, on 100,000 tests with the prevalence which I have, I admit, arbitrarily set – but it could be true of use of recombinant human growth hormone in the relevant athlete population – of 1%, you will get 1,000 true positives and, because your test sensitivity is such that you only get 1 in 3, you will get at the end of the year 300 true positives and 10 false positives. Which means each time you have a positive in front of you, you have 300 against 10, which means 30 against 1 of having a true versus false positive.

UNIDENTIFIED SPEAKER: Why would you not have 3.3 false positives? That would be correct. Because the sensitivity will be the same towards the false positive than towards the true positive.

MATT RICHARDSON: Thank you.

UNIDENTIFIED SPEAKER: You had 1,000 true positives, you miss 600 I mean theoretically. If you have 10 theoretically false positive, then you miss 3.3 false positive and not 10. I mean if you compare the figures, and if you compare them both at the same level or both without the sensitivity or both with the sensitivity factor, otherwise it doesn't match.

DR VIRET: So, what would be the right...

UNIDENTIFIED SPEAKER: If the test sensitivity is 30%, meaning that you just catch 300 out of 1,000 true positives, and if...

DR VIRET: You would also mean one...

UNIDENTIFIED SPEAKER: You would not catch the 10 positives as you would not catch the 1,000 true positives. It would be the same level.

DR VIRET: Let's discuss that during the break.

PROFESSOR COWAN: Just before you close.

PROFESSOR SAUGY: Yes?

PROFESSOR COWAN: I would say actually, what this discussion has shown was just my treatise; that just using the numbers is very complicated. In hearings, I avoid desperately getting involved in these number arguments because what we've all seen is how confusing it can become. We must do this outside of hearings, it's the only sensible way.

PROFESSOR SAUGY: There is a break. You can discuss that, Jean-Pierre and David, Marjolaine.

4. Panel discussion – Are anti-doping science and regulation keeping pace with doping?: Baron Dr Michel D’Hooghe²², Dr Matthias Kamber²³, Dr Francesco Botrè²⁴ and Dr Peter Van Eenoo²⁵

PROFESSOR SAUGY: So, this is a panel discussion now. I think before the break it was a great atmosphere. I will make just a very small introduction for every participant of the panel discussion. I will begin with Baron Dr Michel D’Hooghe. He is the chairman of the medical committee of both FIFA and UEFA. He is a very experienced football medical doctor and, besides that, I can tell you I know him since years, he has such a humanist approach to medicine or sports that I can only admire him.

So, please, Michel.

BARON DR D’HOOGHE: Thank you, dear Martial, and thanks to the organisers of this wonderful meeting.

I must say that when I saw the programme I was really surprised to be invited here, because I am surrounded at 1000 metre altitude by specialists, scientists, lab specialists, and by legal experts. But for me the doping problem is not only a matter of samples, of graphics, of discussions like we had half an hour ago, of sanctions, for me it is particularly a matter that concerns the athletes in the world of sport. In my case the world of sport is, of course, the world of football, a discipline that brings together some 300 million young football players all over the world.

In that world, I have some experience. Having directed a professional league in Belgium, and having directed, for 14 years the national association, and my own club, the club of Bruges for six years, but especially having directed and having had a medical function

during many, many years in the medical activities at FIFA, as well as UEFA. I must say this experience concerns, of course, a great variety of fields of interest.

Let me give you some examples.

First of all, of course the prevention, the diagnosis, the therapy of all kinds of lesions; the medical guidance of all our tournaments. That means, on FIFA level, 13 tournaments with out-of-competition controls during the qualification rounds, during the final phases. Concerning UEFA it concerns the European Championship and the Champions League and the Europa League.

We have other discussion points. Namely, for instance, the sudden cardiac arrests. Ladies and gentlemen, this is one of our primary objectives for the moment, the prevention and the therapy. You must know that today, every month, a young athlete dies on a football field.

Another point is the discussion around the concussion, where we had no strict rules, and where now we have introduced the three-minute rule where the doctor can have three minutes to judge if a player can go on and where the referee asks only to the doctor if, yes or no, he can go on.

We have problems around altitude and around sport in extreme conditions. But of course you are not here for that, you are here for the doping. Doping is, of course, also an important topic in our medical guidance of the football players.

We have a zero-tolerance system for three main reasons: it is against the ethics of sport, it is against the integrity of our competitions and, for me as a doctor the most important, it is against the health of all athletes.

I can present you the results of 10 years of statistics whereby we have done some 300,000 doping controls, arriving at positive results of less than 0.5%. That doesn’t mean that there is no doping in football. When you have 300 million players it would be stupid to say that there is no doping. But what we don’t have is a doping culture. This is important. And there we have to fight to keep that in the future.

We did that, for instance, in the World Championship in Brazil where, for the first time in the history of team sports, all the athletes were controlled. We did 2,033 doping

²² Member, FIFA council; Chairman, Medical Committee of FIFA and UEFA; Honorary President, Belgian Football Association.

²³ Director, Antidoping Switzerland.

²⁴ Director, Rome Anti-Doping Laboratory.

²⁵ Director, Doping Control Laboratory, Ghent University.

controls in Brazil, and that was not evident because at that moment the laboratory of Rio was not accredited so we had to bring back to Europe, to Lausanne, all the samples. Martial Saugy knows that very, very well.

Also, in the last European tournament in France we had close cooperation with 23 NADOs just for the out-of-competition controls during the preparation of the tournament.

But of course, this is all the past and you should not look too much at the past, because when you look too much at the past you are with your back to the future, and that's never good.

We are now preparing very actively the Confederation Cup in Russia with out-of-competition controls twice for each of the eight teams, and then of course the classic controls during the competition with application of the biological passport that we did already in the last World Cup and in the last Euro competition. We work very closely together with the laboratory of Lausanne, and we will do ourselves all the controls in Russia so that there is absolutely no danger that there would be interference by the local anti-doping activities, if you understand what I mean. And of course, we can count on the very, very great expertise of Professor Martial Saugy who is, in fact, our guide in all laboratory and technical questions, and I am very, very grateful to him.

We have another pharmacological problem that is much bigger for us than the doping problem, and that is the problem of the abuse of the NSAIDs, the nonsteroidal anti-inflammatory drugs. We have the lists of all our players, what they take during the last five days before each match in international competitions. These are groups of 23 players.

Well, there are nationalities where all 23 take NSAIDs. There are some players who take four or five different ones. My care for the moment is that I see it more and more in the youth categories, 15 years, 16 years, with all the long-term consequences that you know.

We are happy to continue our fight with zero tolerance in collaboration and in accordance with the friends of WADA, with the friends of the national anti-doping associations. And I will never forget what my good friend and countryman, Jacques Rogge, the honorary president of the International Olympic Committee always said: «We will never win the fight against doping, but we must continue it because it is worth to do it for the health of the athletes of tomorrow».

Thank you very much.

PROFESSOR SAUGY: Thank you, Michel.

I give the floor to Dr Matthias Kamber. He is the director of Antidoping Switzerland. Matthias, you have some time to put forward your views.

DR KAMBER: Thank you, Martial. Thank you very much, ladies and gentlemen.

My role is to discuss a bit about limits in doping control. Me, as a scientist, I'm glad that we are going so deeply down in the analytical procedure; that we are now able to detect things I couldn't detect 10, 20 years ago when I was still working just up the hill in the laboratory there. That's a good sign. So, we see now we can re-test samples from Olympics and we find substances we didn't find before. This is a good side. But every coin has a flip side as well. So, as a person responsible for a NADO with result management responsibilities, sometimes it is very hard to make an interpretation of the results.

So, Marjolaine already mentioned this case, I think it was the first time ever in the whole world where we discovered that the doping case was because of an over-the-counter pain relief drug, just a year ago. It was contaminated with diuretics, but the manufacturer did not make a mistake because it was below the limits of good manufacturing practice. So, the athlete couldn't do anything, strict liability couldn't apply there, and it was really difficult. If the athlete hadn't had the last pill left of this contaminated batch to be analysed by a good lab, then he would have been sanctioned for two years. So, this is quite a shocking thought. Or the two clenbuterol cases we had last year where we really had to run through the whole of possibility measurements, and we did not just decide behind doors about this but we put it in front of our tribunal as well. This is difficult.

And if you look, for instance, at the different limits we have, within the doping list we have limits for specified stimulants. For instance, for ephedrine, pseudoephedrine or cathine, there is a limit for excretion. So, below this limit there is no problem.

We have limits in the doping list for inhaled beta-2 agonists, that is, for asthma treatments. Very helpful for athletes because it is indicated how much they can take per 24 hours or per 12 hours.

That's helpful. But why is the limit for cannabis not in the list? It's the same, it's a threshold. Why are all the other threshold limits not put in the list? So, we have to go down to the Technical Documents for labs but this is of no help for us or for athletes.

If I look now at the recent research done by Geoffrey Jalleh and Rob Donovan in Australia, where they clearly could show the support from athletes for anti-doping rules when certain parameters are met. One of those parameters is legitimacy.

If you have good rules and processes in place and apply them correctly and fairly, they will follow it. But if they don't understand, if they can't understand it, if it is not followed correctly or if it is behind doors, the decision, they won't follow. So, I can't explain it to them.

I can't explain to athletes what is MRPL, what is a decision limit or what is a detection limit, it is too complicated.

In the Technical Documents we have this MRPL, that's minimum required performance limit, for labs. It is good, it defines if a lab is able to make doping controls or not. That's correct.

But then we have threshold limits, but not for all substances. Why not for all specified substances?

There was just recently a case of a Russian boxer with tuaminoheptane, a weak stimulant. He took this drug for nasal problems. It was detected about 50 times below the allowed limit for ephedrine, another weak stimulant that has a threshold limit. He was still sanctioned, although he had used it out-of-competition. But the substance was still detected in a small dose in-competition. If there had been a threshold limit for this weak stimulant as well, he would not have been sanctioned. So, is it correct or not?

Then we have this limit of detection, then we have decision limits, and we have then reporting limits. In my thinking we should here be more clear. We should have this minimum required performance limit for the lab, and then we should have a reporting limit that is roughly about this minimum required reporting limit. This one should be low because we only would like to have good labs. It should be low for all labs. Then we have the same good standard for all over the world. And reporting limits should be around this. Below this reporting limit, a lab shouldn't report an adverse analytical find-

ing, but should report the finding to the organization with result management responsibility to look into it more in detail. Maybe we can discuss this with the lab experts, because for me, here, it's really a problem: how do I explain all these limits and regulations to athletes, because sometimes you can find these limits in the doping list, sometimes in a Technical Document, and why is it?

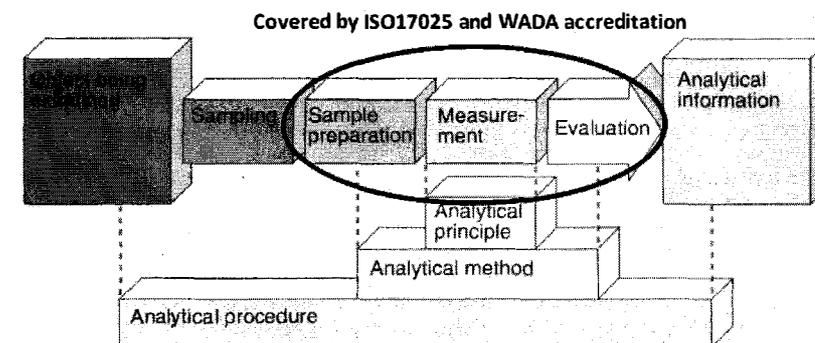
Thank you very much.

PROFESSOR SAUGY: Thank you, Matthias.

This is good for the debate, I think.

Now I invite Francesco Botrè. As he always defines himself, he is my brother from south of Europe, but we are both from south of Europe, of course. He is the director of Rome's laboratory.

DR BOTRÈ: There is a sentence that says: «Power corrupts and PowerPoint corrupts even more». Actually, there is a better one: «I have no power, no point, but I have PowerPoint!» Do not worry: I only have a couple of slides and will try to make a limited number of points.



• Modif. from G. Schwedt
• The Essential Guide to Analytical Chemistry, John Wiley & Sons, 1997

This is just to locate by a sort of idealistic GPS the laboratory. This is what happens in analysis. This is what we analytical chemists teach to our students: that the analysis starts when you decide what to test.

«Is the River Tevere in Rome polluted?» «Of course it is». No, you have to show that it is. Well, you decide where to collect the water: at the source, and then every 10 kilometres, and then inside the city, and then close to the sea, and then you see that there are pollutants. So, the analysis starts with the decision on how, what, and when to test.

Then there is the analytical information.

In anti-doping, for a matter of confidentiality, for a matter of independence and of transparency, laboratories do not participate in the decisional process on who, when, and how to test. We are more limited to the inside of this plot. So, the analytical procedures start with the intelligence, with the testing authority, and the analytical information finishes with the result management and eventually the task here in Switzerland. We are, let's say, one of the analytical methods. We do not even do the sampling, the sampling is done by somebody else.

In this analytical method this is what I understood from the previous presentation by the great Marjolaine, in spite of the fact of the six-year old joke, she's great. I believe that the way I put this 0.01% false positive is that if I have a sample that is negative, I do the analysis 100,000 times, for 10 times it becomes positive and for 99,990 times it is negative.

This is 0.01% false positive in the lab. Then this false positive can be broader: if you have contamination out of the lab, if somebody spikes a substance in the urine of somebody else. So, the athlete is not doped but the result is positive.

Very unusual. The other case is that the athlete uses doping and tests negative. And this gives us 30% of mistakes. Again, not analytically. If a substance is inside the sample, we find it; if a substance is not inside the sample, we do not find it. So, I have another example and I finish my PowerPoint.

This is an oversimplification of the devil for the Italians: the instrument that gives you a ticket if you are driving too fast: [indicating photograph showing various pieces of equipment]

[LAUGHTER]

This is an oversimplification of our instruments in the lab. What we do is to see if the rules made by somebody else are violated or not.

This is Rome: [indicating photograph of four policemen monitoring speed measurement equipment in Rome, with the Colosseum in the background]

This, in my opinion, is a blank negative sample, because we are close to the Colosseum and there is no traffic there. So, if this is a testing of the instrument, it is okay; if not, it is a way to waste resources, to put a speed meter where there is no traffic.

[indicating photograph of two policemen using speed measurement equipment]

I chose this picture because this person here on the left looks a little like Professor Cowan. I think we all agree that Professor Cowan is today the chief of our anti-doping police for the laboratories!

What I'm trying to say is we are very good to detect somebody that is driving too fast here [indicating a portion of a photograph with a car passing directly next to three policemen taking speed measurements on the side of the road], but not something that is driving too fast there [indicating a car in the distance in the same photograph].

So, this is not magic, and laboratory analyses are not magic. So, what my friend Matthias just said, the decreasing, the improving the detection limit, is an advantage but it is not a miracle. You need to look at the fraction of picograms per mL in the urine of somebody that is abusing a substance.

Why? Because it is not tested sufficiently often. If the test is made sufficiently often you do not need to go down, down, down in sensitivity for the reason Professor Cowan explained so well, for the pharmacokinetics. If you want to see if somebody took a substance six months ago, you have to really have some instrument that is much better than this. But then you risk confounding the finding with contaminated supplements, contaminated meat, with passive inhalation, with non-voluntary intake, and so on.

So, I think that if we go back to my first slide and we take the system as a whole (I'm not practising the most famous sport in Italy that is not football but is blaming somebody else) I think that if we consider the fight against doping, something in which the laboratory is one of the components, and if we use the intelligence of the laboratories also to drive and to use the resources in the best of the way, like: «Hey, I have to set a test for somebody that probably is using erythropoietin, do you think that if I test six hours before the race I can find it?» Yes, maybe you can. But it is better if you test 10 days before the race or 15 days, because after some period the EPO is no longer detectable, but the effect on the athlete's system is at its maximum after two weeks. So, if there is this interaction, we can improve the detectability, we can reduce the false negative, and we can save money. That, for us, is always an advantage.

Thank you.

PROFESSOR SAUGY: We have two Belgians in the panel, the next being Peter Van Eenoo, or rather, Professor Van Eenoo.

I met him the first time, I think, in Charleroi doing haematocrit measurements on cyclists during the classics. So, Professor Van Eenoo, if you have some words to say.

DR VAN EENOO: Thank you very much.

It is always a difficult task to speak after Francesco Botrè because nobody can surpass his feeling for being comical and at the same time saying very wise words to the point.

Picking up a little bit on what has been said before, I need to tell you, and this might come as a shock to some of you, there is no more zero tolerance when it comes down to reporting analytical results. There is still zero tolerance in doping with respect to use, but if you are looking at WADA's Technical Documents, there are many classes now for which we have a reporting recommendation. If it is below half of the MRPL we should not report. I think this is a wise decision because, again, 10 years ago I would not be standing here discussing a problem we have caused as labs: becoming too sensitive. Because this has always been the objective, become more sensitive, more sensitive, being capable of detecting lower concentrations. For several classes this is no longer needed and this is, indeed, perhaps causing some issues.

We need to be wise, we need to use our brains for which of these classes this is the case. Mainly this is the case for substances which have a very short window of activity. If we don't agree on this we can immediately stop with the retesting of Olympic samples. Because what is the purpose of this retesting? It is to make the detection window longer because we have become more sensitive, because we have new metabolites, long-term metabolites, which now will catch athletes who have used a substance for a very long time before competing. It is amazing how well some athletes, trainers and their entourage know our capabilities, and so they try to avoid detection by stopping on time. Now we've got 10 years to expand that detection. I think that is the way to go for certain groups of substances. Clearly this is the way to go for anabolic steroids, for peptide hormones, where you have a very long window of effect and our window of detection should at least reflect that window of effect.

Having said that, there are other classes for which this is not the case and perhaps why we should limit our sensitivity. How to do that?

That's another matter. I've heard from Dr Kamber that he would like to have some thresholds for these substances. I am not in favour of this. As an analytical chemist, if you have a true threshold, that means you need to have a quantitative method that meets other quality criteria. That needs a lot more investment. That will increase costs. I greatly favour the reporting limits. And, yes, this will mean that at some point you get into new problems. But whatever happens, if you take a substance as a contaminant in a supplement, which is perhaps a pill, or you take it as a pill containing the substance, it's the same. An analytical technique will not be able to differentiate that. We will not be able to do so.

We might be able to differentiate at some point between causes of administration routes and perhaps also if it doesn't come in the same formulation. Perhaps, for example, with clenbuterol, you got it via meat rather than via a pill. There might be solutions there looking at differences in isomers, very technical. There might be some solutions there, although they are not as easy as, at first glance, some of us thought.

But establishing whether or not an athlete intentionally took a substance or not, that is not going to be solved by analytical chemistry. That's where the lawyers come in, that's where the judges come in, judging a case based upon evidence, based upon hearing. It's

the same. If nobody witnessed a shooting, how do you know if somebody shot somebody accidentally, because he was looking at the gun and touched the trigger and a bullet went out, or he aimed at the person? All you can see is that person hit the person, killed the person. The same applies for anti-doping. From the analytical side, I think for certain classes of substances I continue to endeavour to be as sensitive as possible. For others, perhaps we need to cease that fight. And it goes beyond those which are only prohibited in competition.

I do believe, for example, because we were talking about the diuretic, that we might also need to consider this for diuretics in sports where there are no weight classes. Because if you have a diuretic present in urine at 5 picograms per mL it will not have diluted the sample and it will have had no effect as a masking agent. For sports with weight classes, of course it depends how long the weighing was before the sample collection. But for other sports that does not matter. So, I think we need to use our brains.

That's the basic lesson, use our brains and not have easy solutions or one solution fits all.

PROFESSOR SAUGY: Thank you.

So, we are exactly in the middle of a debate.

Matthias, you propose, let's say, to have reporting limits exactly at the same level as the MRPL; is that right? Or can you elaborate a little bit on what you think would be the solution?

DR KAMBER: First, maybe, I would like to emphasise, I'm not against going down and down, because being so sensitive and so selective – I know Peter will not agree with this – but maybe we will be able to have new tests like exhaling of substances or dry blood spot. We are working on this. That's why we need these very low-level detection limits. But for the rest, for instance for all the specified substances, as we said not only stimulants or in-competition but for the specified stimulants, we need a solution. I know about at least two cases with diuretics, one with the medication contamination, one with drinking water contamination.

So, in my thinking, why do we have to have a differentiation between the minimum required performance limit and reporting limit? That means if we have this for specified

substances, that means we have better labs and less good labs. The better labs will be detecting lower levels of substances, it's not fair, and the less good labs will just detect around this minimum required performance limit.

So, for me I would rather go for having more severe rules for labs to make sure that really all labs worldwide perform the same performance and then also report the same level. For me it is also easier to explain to an athlete. How do I explain to an athlete that this lab has the same minimum required performance limit but they are reporting less than the other ones for a specified substance? For non-specified substances I'm clear that we have to go down as much as possible.

PROFESSOR SAUGY: David, do you have something to add to this?

PROFESSOR COWAN: The issue with sensitivity is context. Forensically you can record an observation, but what's the relevance of the observation, as Matthias is indicating? The problem is we're focusing on getting lower sensitivities, we're not focusing on the context.

Too often, when the rules are being made, we are asking how can science help make our tests more sensitive so that we can catch more cheats, and we're not looking at the other side of the equation; how do we ensure that it is only the cheat that we are catching. That's the main thing that I see going on as we get better instruments, better analytical technology. We're keen on doing that as scientists, but we can't do it alone.

PROFESSOR SAUGY: I know there are many questions, certainly, coming from the floor. Does anybody want to begin? Yes.

HOWARD JACOBS: Howard Jacobs, from Los Angeles.

It seems, from listening to this, that there's a good argument for having more threshold substances. I understand the argument against it is you have to develop quantitative testing methods, and I'm curious to hear what the rest of you think about this, but it seems like as the limits of detection get lower you're catching more inadvertent users at levels where it is harder for the athletes to prove that it was inadvertent because you are getting down so low. Then the other part of the equation is, for substances that are only banned in-competition, it's hard to understand why you need to test down to levels that could not be performance enhancing or if you used it in-competition it would be

at such low levels that it wouldn't be performance enhancing. It seems like for those substances there's a good argument for detection limits. I'm just curious, from the science side, what you think about that.

DR BOTRÈ: I will try to answer.

I think there is already a partial answer to this. So, for example, for the class of stimulants and for the classes of drugs that are prohibited only in-competition, the laboratory is not requested to report an adverse analytical finding if the concentration is below 50% of the MRPL. So, it is not a full quantitative threshold but it is a reporting level. I understand that this can lead to confusion because this gives to the laboratory the position: «Hey, look, there is amphetamine in that sample. How much is it?» «I have a fantastic instrument with this new generation instrument, it is 10 picograms per mL». «Well, okay, below 50 nanograms you are not requested to report». So, we already have this.

To do this for all specified substances is the new proposal, but for most of the substances that are banned in-competition this rule already exists.

PROFESSOR COWAN: The big problem that I see if we set thresholds is trying to adjust for diluted or concentrated urine when we're not addressing the issue of sample collection. I have seen, apparently experienced, doping control officers allowing athletes to drink two half-litre bottles of water in rapid succession. It makes no sense then to talk about a threshold when they are so hydrated that the specific gravity of the urine is virtually that of water. Specific gravity adjustment does not work well for very low values. There is a range where it will work, and not beyond that.

DR VAN EENOO: Just a few things.

First of all, as you've heard, we are recommended not to report below half of the MRPL for certain classes of substances. Additionally, the concentration levels of these MRPLs are much higher for the in-competition substances than for out-of-competition banned substances. So, while we're talking about 5 nanograms per mL for, for example, anabolic steroids, we're going to talk about 100, 200 nanograms per mL for narcotics or stimulants. So, they're higher. That's one.

Secondly, there's a big problem here as well. Urine has very little or no value establishing pharmacology and pharmacokinetic data. So, as you've heard, the more you drink, the lower your concentration will be. If you are hydrated or not hydrated and as you've just heard also from David, there's something called super-hydration, which means that if you empty your bladder right now. No. Let's imagine all of you, we have a party. We have a party, there's an Italian in the audience, he brings some white powder with him, we all have a sniff [LAUGHTER].

DR BOTRÈ: I don't like this example! Your Honour, I don't like this example. Objection!

DR VAN EENOO: We all have a sniff and after half an hour we go to the toilet, we provide a sample. All of us will be positive. However, if we empty our bladder and then drink very, very rapidly two of these bottles of water, and then we provide the sample, there's a likelihood that some of us will be negative because there was not enough time for the kidney to excrete the product in the white powder into our urine. So, there are a few problems there.

Secondly, the reason why I am for a recommendation and not for a threshold is something we have seen in a couple of samples lately, and that is that athletes are aware of this and they're starting to use different substances in minute doses at the same time, creating cocktails. So, none of the concentrations reaches the reporting limit, but the cumulative effect of it, of course, will have a physiological effect.

Just imagine there's a reporting limit for amphetamine of 50 nanograms per mL, and if I use a normal dose of amphetamine I will go above. Now, if I take 1/20th of that dose I will not go above after a certain time. But if I add some methamphetamine, I add some methylphenidate, I add some you know, I add all of these together in a cocktail and I will have 20 stimulants in my urine but none of them goes above the threshold.

I ask you, does this athlete dope or not?

If it's with thresholds, it's no; if it's with a reporting recommendation within the lab, we can say: What the heck. We report this guy. It is still up to the final judge to say if we were right or wrong. But that is some element which leaves us an option.

I can tell you I have never done this with a real case, although we've had a few with two stimulants at the same time at very minute concentrations which did not reach to the

limit if we added them together. But I have reported a case of a minor where the concentration of amphetamine was below the reporting recommendation because there was a second doping substance there as well, and I thought that was making the case even more severe.

PROFESSOR SAUGY: Matthias.

DR KAMBER: Yes, exactly what I'm telling you. We, as the result management unit, we have to look into this. It doesn't mean that you do not give us the information. And we already had a case of an athlete using eight different anabolic steroids. For me it is clear that it is a very hard use of doping, although clearly it is treated differently than when you find only one. So, I think it wouldn't hinder you to report it, and then it is up to the result management organisation to do what it does.

If you call it threshold or if you call it recommendation, for me that's more or less the same, I can live with both. But it is not very clear that you have already this recommendation. Sure in the Technical Documents somewhere it's written that it shall not be higher than 50% of the MRPL, but I get the impression when you look at all these different limits it has developed historically and now we should go again and say, Okay, now we have all these decisions and limits, we should go over and just make it more simple, do it straightforward, put it all in the list that everybody can see it. Then it is more transparent, people know about it, athletes know about it, the medical doctors know about it. All the rest is a little bit clandestine and you know anti-doping and clandestinity, it should be over now.

PROFESSOR SAUGY: Thank you, Matthias. Michel, do you have a remark on this?

BARON DR D'HOOGE: I really appreciated the intervention of Professor Van Eenoo, not only because he comes from my country, but when he said that finally the judge should judge. We see too much that when a sample is positive it is already published that the guy is doped, and this is not true. A doping case has to be considered of course based on laboratory results, but also other aspects that are under the judgment of a judge.

DR VIRET: Yes, I just wanted to react and then to ask a question regarding the reporting level.

We were talking about what would be the difference in terms of analytics between a threshold and a reporting level. There is a question of what is the difference from a legal viewpoint. That is, in my view, one of the issues currently with the reporting levels; is that if you have a threshold, if you report under the threshold, then it is not an adverse analytical finding. Now if you report under a reporting level, in my view it is currently not clear what that is. In theory, since it is a non-threshold substance, the identification of the substance in the sample is an adverse analytical finding and so you have a positive case. So, I would be interested in knowing from the side of the lab what currently happens with findings below the reporting level. Some said that in certain circumstances you would almost be tempted to report them as positive cases and in the other situations what would happen? Is there a unifying policy or is it dependent on the lab what happens with those findings?

PROFESSOR SAUGY: Anybody? Peter.

DR VAN EENOO: Okay, so it is a recommendation that we should report, which means that it is not going to be fully harmonised between labs. As I said, the general strategy for most labs will probably be that they are not reporting when it is below unless, as I've said with the case of the minor, you have some aggravating circumstances where you really want to have this investigated and further followed up. It is also only for in-competition compounds. You know, most of these cases are from substances where you can doubt whether it was doping or whether it was social or asocial use of some drugs. If we have a metabolite of cocaine which is present at minute concentrations far below the MRPL, yes, there is zero tolerance, but it is in-competition that we know we can detect it for a far longer period, so it might have been used out-of-competition. That's why it's like that and it's the recommendation.

Analytically what the difference is, because that was another question you had, it's huge. A quantitative method means full validation curve, means measurement uncertainty. The cost for development of the method is additional, because we can do the other one with a qualitative method, it would increase prices so much it's incredible.

You know what the easiest solution is to all of this? Test the athletes more frequently. Because then you will get higher concentrations and we can raise, for all these classes, our limits of detection or our MRPLs. But of course that also comes at a cost.

PROFESSOR SAUGY: Jean-Pierre, do you have a question?

JEAN-PIERRE MORAND: Yes. It went in the same direction as Marjolaine.

I think the recommendation is a problem.

Mr Kamber said one should simplify the system. The first thing, I think the system is somewhat consistent but it is also already somewhat inconsistent. Because, for example, to use half of the minimum reporting performance to establish a reporting threshold, or call it what you want, seems to me the wrong reference to start within the system. Because on the one side you have something which is a technical problem and you say to be technically correct you should be at this level, and then you are setting a limit which is to say below that level it should not be used for anti-doping purposes. I think this is mixing two dimensions which are already difficult to understand for the people inside the system and which are completely not understandable for people outside of the system, and you are mixing them in a sense which mixes their meaning. Therefore, call it a threshold or call it, let's say, a reporting limit, I think then the next question is recommendation.

I think it should be much more affirmative and it should not be reported unless there is a reason to report it. Because what you mention are quite understandable. If you say, yes, we are below the reporting limit but there is a good reason to report it because we have seen eight different amphetamine just below the reporting limit, and this is obviously an abuse, therefore we report it. If it would be worded in this way, then it would be understandable. The problem for the result management authority is suddenly you have a lab which says, Okay, it was below the limit but we may report it, so we did, and doesn't give any reason. Then the result management authority is there and says: 'What do I do?' Therefore I think, at this point at least, I would agree with Mr Kamber that the system must be clarified and made more consistent in the use of the words. There is, on the one side, the technical aspect and it is the performance limit, and on the other side is basically the qualification whether or not it is relevant for anti-doping purposes. This should be kept apart very specifically. That's one thing.

DR VIRET: Just one word to add to Jean-Pierre.

An additional question is what you report it as. Do you report it as an adverse analytical finding or as some sort of atypical finding?

Because the consequences in terms of notification to the athlete are then very different too.

MATT RICHARDSON: I'd just like to give the perspective from the NADO. My name is Matt Richardson, I'm the head of the Swedish NADO.

Reporting substances that are under the reporting limits is, for us, a benefit, and we consider that to be intelligence and investigations work. Because then it allows us to choose a number of different tools to try and fine-tune if this was actually a near case of doping that we just happened to miss; it could also be a contamination aspect. We can then go back to the doping control forms, have a look and see what they are taking. So, this is very valuable information for a NADO. Much rather have that kind of information put on our table, where we can proceed with an investigation, than to not know about it at all.

DR KAMBER: Yes, Matt, I clearly agree.

But what I also said, it is not an adverse analytical finding but it is a report we get and we can then decide if you start an investigation.

This is, for me, very important, to have also low-limit substances that maybe we know already that this athlete did several things way before, and then it would add to the information we have on this athlete. So, understand me correctly, I'm not against not reporting this, but not as an adverse analytical finding.

PROFESSOR SAUGY: David?

PROFESSOR COWAN: We have been running a system in the UK for some time now where we will give data for intelligence purposes, not for action. So, I agree with your point.

PROFESSOR SAUGY: Maybe I have a question to my colleagues.

We at FIFA, we worked on the blood analysis, thinking that for the in-competition substances it would reflect much more the timing of the effect of a substance. What do you think about that?

DR VAN EENOO: Yes, I do believe that some alternative matrices, including blood, would be better for the in-competition substances.

I don't believe that they would be better for the majority of the out-of-competition substances, but for the in-competition, probably yes, because they give a much better dose/effect relationship. And, if you are using blood, because there are other alternative matrices like hair or saliva, but if you are particularly using blood or serum or any blood derivative you also have the pharmacokinetics behind it. Even if it's a single point, that concentration is not dependent on how much you drank, how much you urinated, if it is a fresh sample or not, because your blood volume is more or less stable so you get a good estimation of the dose/effect relationship.

BARON DR D'HOOGHE: What is the best time to do it?

PROFESSOR SAUGY: Do you have an answer to that?

DR VAN EENOO: The best time would be shortly after the competition. Of course this is not an amusing point for the athlete, but it is the best moment. If you do it before the competition, while it's in-competition substances, it makes no sense. Ideally, perhaps, you do it before and you do it after. But you can't have a continuous blood monitoring system on an athlete. Shortly after the competition, like you do with most regular in-competition doping controls, you take a blood sample, perhaps, in addition to a urine sample so you get a complete picture. I think this is the approach we need to move forward to, both as labs as well as collecting agencies, not to focus on a single matrix any more but to focus on a complete range of matrices which all have additional information and which will allow us to have also additional detection capabilities.

PROFESSOR COWAN: I agree with all that Peter said but need to add to it. Please don't go away with the idea that blood and urine will be the solution to everything. There are other issues such as the time when you collect the sample; we know that you can get changes in things like haemoglobin concentration depending on when you collect the sample. So, the theme still needs a bit more consideration before you put the procedure into place.

PROFESSOR SAUGY: [Closed the session, thanking the panel for its contribution].

III. THE «LEGAL» ASPECT

[The first day of the conference continued after lunch with presentations and resulting discussions on various legal aspects of anti-doping. The session was chaired by Michele Bernasconi]

1. Session introduction: Mr Michele Bernasconi²⁶

MR BERNASCONI: Ladies and gentlemen, good afternoon.

I was, about two months ago, at a conference where the moderator took about 45 minutes to introduce himself and then he left just 15 minutes for the speakers... I promised myself not to make the same mistake at any future conference.

So, very quickly, my name is Michele Bernasconi, I am the moderator of this afternoon and I am extremely thankful to the organisers of this fantastic Summit. It is a pleasure to be here, in particular since it stopped snowing and temperatures got to the normal level.

A special thank you to Francesco Botrè. I am sure that everybody learned that the next time one of us will be in Italy, if you get a speeding ticket, you can simply... ask for the B sample! [LAUGHTER]

The session of this afternoon is focused on the legal aspects around doping. We wanted to address this with the title of the session: «Is law killing anti-doping efforts?»

We will start with an extremely important topic that has already been mentioned once today in relation with a policy matter: minors. The specific topic is «Legal issues with minor athletes under the WADA Code».

I'm extremely happy that Herman Ram, the director of the Anti-Doping Authority of the Netherlands, is here with us. Herman was previously working with several sporting federations so he knows very well different sports, and this is certainly a good background to lead such an important fight like anti-doping in many sport disciplines.

²⁶ Partner, Bär & Karrer; CAS Arbitrator.

Herman, the floor is yours. Thank you.

2. Legal issues with minor athletes under the Code: Mr Herman Ram²⁷

MR RAM: Thank you.

I chose the orange tie to show that I'm from the Netherlands, of course. We had King's Day yesterday.

Minors and the World Anti-Doping Code.

I'll try to do three things in half an hour, which is a challenge:

- To look at references to minors in the Code. That's not too much, that's a small part of it.
- To look at the reality of testing of minors.
- And the big part is jurisprudence, what do panels actually decide if there is a minor involved in cases. That's what I'm trying to do.

First, let's look at the Code itself.

This is about the World Anti-Doping Code, so that's central to what we do.

The definition of a minor, in the current Code, is anyone who has not reached the age of 18. That's simple. But under the 2003 and 2009 Code that was different; it depended on the country where the person lived. So, there were differences and there are cases of 18 and 19 year old people who were treated as a minor. You have to keep that in mind. This has been solved now, but it was an inequality in the past.

Basically, most provisions in the Code which go to minors (which are very few), again, try to basically defend the minor, they try to defend him by influencing the surroundings of the minor but not by changing the legal position of the minor himself.

The first one is Article 10.3.3 of the Code:

²⁷ Director, Anti-Doping Authority of the Netherlands.

[...]. An Article 2.7 or Article 2.8 violation involving a Minor shall be considered a particularly serious violation and, if committed by Athlete Support Personnel for violations other than Specified Substances, shall result in lifetime Ineligibility for Athlete Support Personnel. [...]

Basically, this says, well, if an athlete support person gives doping or administers doping to a minor, he gets the biggest sanction we have, which is life. So, by giving the highest possible sanction we try to protect the minor.

The second one is Article 10.12.1 of the Code:

[...]. An Athlete or other Person subject to a period of Ineligibility longer than four years may, after completing four years of the period of Ineligibility, participate as an Athlete in local sport events not sanctioned or otherwise under the jurisdiction of a Code Signatory or member of a Code Signatory, but only so long as the local sport event [...] does not involve the Athlete or other Person working in any capacity with Minors. [...]

If you get a sanction, under the new Code you have a right to go back in certain functions at the end of your sanction, but not if minors are involved. Basically this says keep the doping users away from minors.

Article 20.3.10 of the Code:

Roles and Responsibilities of International Federations

... To vigorously pursue all potential anti-doping rule violations within its jurisdiction including investigation into whether Athlete Support Personnel or other Persons may have been involved in each case of doping, to ensure proper enforcement of Consequences, and to conduct an automatic investigation of Athlete Support Personnel in the case of any anti-doping rule violation involving a Minor

This, for anti-doping organisations, international federations in this case, means that it is obligatory to do further investigations if there is a case with a minor involved. That's always a good idea. Of course we are always supposed to do that if we can, but for minors it is really obligatory to seek and find out what's going on if a minor is involved.

Article 20.5.9 of the Code:

Roles and Responsibilities of National Anti-Doping Organizations

To conduct an automatic investigation of Athlete Support Personnel within its jurisdiction in the case of any anti-doping rule violation by a Minor

The same, of course, goes – slightly and shorter formulated – to NADOs as well. We have the obligation, if a minor is involved in any case, to look into the case and try to find out what has been going on.

All this is about protecting the minor, but the minor himself is not touched. There are two provisions, basically, which change the legal position of the minor himself. Only two, which is very little.

The first one is about public reporting, disclosure (Article 14.3.6 of the Code):

The mandatory Public Reporting required in 14.3.2 shall not be required where the Athlete or other Person who has been found to have committed an anti-doping rule violation is a Minor. Any optional Public Reporting in a case involving a Minor shall be proportionate to the facts and circumstances of the case.

Under the Code all decisions, all awards, must be published with the name, the sport, the kind of anti-doping rule violation, and the sanction. But that's not obligatory when a minor is involved. So, it also makes it very difficult to find awards. I only found 70. There must be a few hundred out there which are not published. You can't find them, so it is quite hard to look into this matter because, even more than in other cases, the sources are not there, are not in public, at least, to look at.

Then there are the following definitions in the Code:

No Fault or Negligence: ... Except in the case of a Minor, for any violation of Article 2.1, the Athlete must also establish how the Prohibited Substance entered his or her system.

No Significant Fault or Negligence: ... Except in the case of a Minor, for any violation of Article 2.1, the Athlete must also establish how the Prohibited Substance entered his or her system.

There is, in the definitions, which is an interesting place to do it, the provision that if minors have an anti-doping rule violation, an adverse analytical finding, they don't have to prove how the substance entered the body. That makes a big difference in terms of, probably, the final outcome. I say 'probably' because we don't know yet. It is too early

to tell. This is a new provision, it is in the 2015 Code, it was not in the earlier Codes. So, in two or three years' time we'll see how much difference this makes. But I don't go into this because it is just too early. Currently there are some cases that go to CAS, I think, but there are no awards yet to tell you. Still, this is extremely important, because these are actually the only places in the Code where you may say that a minor is treated differently from an adult.

In short, the World Anti-Doping Code tries to protect minors by doing a number of things. It tries to reduce the consequences of the public reporting to minors. It says that the minor does not have to establish how a substance enters the body, which finally will probably mean they get slightly lower sanctions. But for the rest, minors and adults are treated the same, which will be exactly what I'm talking about for the rest of my presentation. It is very fundamental to the Code, minors are not treated differently from adults.

But let's look at reality. This is a very young one: [Picture of baby in a karate outfit displayed].

He probably was not tested. Because when you look at Annex C of the ISTI, that's the only place where there is a difference between minors and adults in terms of how tests are performed, there are modifications possible (emphasis added):

C.4.3 The DCO and Sample Collection Authority shall have the authority to make modifications as the situation requires when possible and as long as such modifications will not compromise the identity, security and integrity of the Sample.

C.4.4 Athletes who are Minors should be notified in the presence of an adult, and may choose to be accompanied by a representative throughout the entire Sample Collection Procedure.

There are modifications possible. But when you look at the Code you always have to look at the exact wording: shall, should and may. Basically it means that, in practice, when a minor is selected for a doping control, there *must* be an adult present when he is informed about it. And, in many cases, it *should* be that there *could* be an adult with the minor going to the doping control station and present with the basic doping control. That's what is in the annex of the ISTI.

In reality many anti-doping organisations take this Annex C literally into the rules. They just copy/paste it. And that's then part of the rules. But other NADOs (i.e. UEFA, the NADOs of Canada, USA, Jamaica, the Netherlands), and quite a number, say, «All this «should» and «shall», no, we make it all *shall*, we make it obligatory that an adult is present when you are informed about the test, and the adult must be present in the doping control station».

This has consequences. And one of the things may be that, in general, anti-doping organisations don't like to test minors. There must be a good reason to do so. This is not a formal position of anti-doping organisations. You won't find in the rules «we try to avoid testing minors». You won't find it in websites of anti-doping organisations. But there surely is a tendency that you have to pass a higher threshold in order to test a minor if compared to adults.

The same goes for the RTPs. There are minors in RTPs but the number is really low.

Again, I think there is this idea of: you really have to have a good reason to bring a minor into a testing pool, with all the consequences, like whereabouts, when compared to adults. This is not about the rules, this is about reality. It is about the choices anti-doping organisations make when they select athletes for testing.

I looked into more than 10,000 anti-doping rule violations, only 405 were about minors, which is 3.9%. I say, because it was not a complete set of information, the best possible estimate is 5% of all tests is about minors.

That's my best guess. The hypothesis that comes out of it is, well, probably also 5% of anti-doping rule violations involve minors. It's my best guess; I can't prove it but it is the best I can do based on the information that is available.

You look at the ages. It is very clear that usually it is about testing 17 years old or 16 years old. Below that it is really rare. Most of the cases as you see [indicating slide], in half of the cases the age is 17 years old.

In total 487 AAFs (2013-2016) were analyzed for this presentation

Age of the athlete:

- 17	252	(52%)
- 16	140	(29%)
- 15	65	(13%)
- 14	19	(4%)
- 13	11	(2%)

The idea that very young people are tested on a regular basis is completely false. It's really rare that it happens. But of course it *does* happen, especially in sports where very young people can achieve a very high level of sport performance.

In an out-of-competition context it's not much different, in most cases, from what adults have. The in-competition testing is by far the most common (78%), out-of-competition testing is only about 20% of the whole.

When you look at who does the out-of-competition testing, it is NADOs:

Out of Competition testing

Testing Authority / Sample collection authority:

- NADO	89
- IF / NADO	7
- NF / NADO	2
- IF	3
- NF	1
- RADO	3
- IPC	2
- Total	107

International federations, RADOs, do very little of it. Which is not illogical, of course, because the young people usually are still within the national scope and not in the international scope. But the testing out of competition is basically done by NADOs.

When you look at: «are they members of the RTP or not?», well, in 6% of all the tests it was to members of an RTP. But of course that does not mean that 6% of the minors are in an RTP. Not at all. When you are in an RTP you have a much bigger chance to be tested. Young people in RTPs are really rare.

RTP membership (based on AAFs)

RTP vs. non-RTP:

- RTP	30	(6%)
- 28	NADO	
- 1	NADO/IF	
- 1	IF	
- Unsure	26	(5%)
- Non-RTP	431	(89%)

In short: It is very hard to get the data to really say statistical things about minors because the data are not available. I was very glad to get the testing data of WADA, thankful for that. But when you go to the awards you really have to do with what you've got, and it is much less than I would like to have had.

Of all testing that is done, only a small percentage, probably about 5%, is done on minors. Even fewer are in the RTPs. The large majority of those tests is done with an adult present. By far the largest. It is actually quite rare that there is *not* an adult present during the testing. Testing concerns sixteen to seventeen years old, below that age, testing is really, really rare. And out of competition testing is basically done by NADOs.

Now I go to the jurisprudence, which is the biggest thing, as I said. I found 70 cases. In these cases, I have found one or more awards. I have more awards than 70, because in many of these cases there are more awards. So, it is 70 cases, 70 minors, but I would say about 110 – 120 awards which are concerned with them. Eight cases about administration, eight cases about evasion. I'll get into that deeper later on.

It happens that you are 18 or 19, so you're not a minor according to the Code, there is an anti-doping rule violation, and still the panels may take your age into consideration.

Not based on the minor provisions in the Code but based on, let's say, taking into consideration all relevant aspects of the case. I don't go into those, but it does happen on a regular basis, especially with 18, 19 year olds, you find in quite a lot of awards that, «seeing the young age of the athlete», etc., etc. But I left them out of my presentation because I'm really looking to minors according to the Code. If you don't know it yet, you should go to www.doping.nl and you'll find all the awards that I'm talking about.

Again, the age: unknown in 23 cases out of 70, which is very high. One of the reasons that we can't find the age (and I did not only look into the award, I also looked on the Internet and tried to match the names with their ages) is that in about a third of cases the awards are very short. They don't mention the age usually because they try to mention as little as possible, as a consequence of the fact that you don't have to publish in minor cases.

3. Awards concerning minors

Age of the athlete:

- Unknown	23	
- 18-19	4	
- 17	21	(49%)
- 16	8	(19%)
- 15	7	(16%)
- 14	4	(9%)
- 13	2	(5%)
- 12	1	(2%)

A few cases of 18, 19 year olds.

I explained to you that was under the 2003 or 2009 Code. Then, again, half of them are 17; a quarter of them were something like that, 16; and then you go down.

It's the same picture. And that leads to the conclusion that the testing practice leads to more or less the same picture in the anti-doping rule violations that follow from it.

The testing is done by all anti-doping organisations, but out-of-competition is mainly done by the NADOs. Once again you also see exactly the same thing, it is actually confirming what I already saw in the testing data. When you look at the awards you see exactly the same picture coming out of it.

3. Testing authority

- NADO		
- In Competition	37	
- Out of Competition	7	
- IF		
- In Competition	13	
- IOC		
- In Competition	3	
- NOC		
- In Competition	3	
- NF		
- In Competition	5	
- Out of Competition	1	

Now I go into the five different kinds of anti-doping rule violations.

The first one is: adverse analytical findings for non-specified substances. The basic question I asked, having seen what I just told you (basically saying the Code does not make any difference between adults and minors), does this in reality lead to the same outcomes when there is an anti-doping rule violation? Well, this is what you get: Non-specified substances, 23 cases, and this is the picture:

AAFs – Non-specified substances

Sanctions in 23 Cases:

3 years ineligibility	1	
2 years ineligibility	13	(once after appeal WADA)
19 months ineligibility	1	(after appeal WADA et al.)
1 year ineligibility	7	(3 times after appeal WADA)
6 months ineligibility	1	

When you take 25 adult cases at random and you look at the kind of sanctions that are there, it's practically the same. So, indeed, the sanctions that go to minors are the same as the sanctions that go to adults.

But it doesn't really come automatically because WADA really had to appeal a number of times to get it straight.

Quite a number of panels have a tendency to come to lower sanctions than the standard sanctions under the Code, and WADA clearly decided not to let that happen. In the end they basically repaired the problems that were there with lower panels.

Let's look at specified substances. The same question, «Do minors get different or the same sanctions as adults?» In the case of specified substances, of course there is more room for panels to decide.

You can get to lower sanctions, there's more room to manoeuvre, you might say. This is what you get:

AAFs – Specified substances

Sanctions in 31 Cases:

2 years ineligibility	6	(4 times after appeal WADA)
18 months ineligibility	1	
1 year ineligibility	3	
9 months ineligibility	2	
6 months ineligibility	5	
3 months ineligibility	4	
2 months ineligibility	1	(after appeal WADA)
1 month ineligibility	3	
Warning / reprimand	6	

Out of 31 cases you get a whole range from two years to a warning/reprimand. Compare that to adults, it is the same. It really works the way that the Code basically was intended to work.

There is not a difference between the kind of sanctions imposed on minors when compared to adults. And, again, WADA has appealed quite a bit to get this done. Most of the appeals of WADA are quite old because they had to make a very clear statement. Nowadays it is much rarer that people try to get a sanction which is too low. So, WADA is guarding the Code, very specifically guarding the Code, in the sense that minors should not be treated differently from adults.

Now we go to administration. I think that is one of the most interesting aspects. I'll show you a number of awards, actually the outcome of them, not only statistics. Because when there is administration of a substance to a minor, my idea was that that would lower the amount of, let's say, guilt, if you like, on the side of the minor athlete and that that would probably lead to lower sanctions.

That's what I thought. If you clearly have a case of administration, my idea was: probably the minor will get off maybe with a warning or at least a low sanction. Well, let's look at a few of them.

A basketball case²⁸. A doctor, two injections, and the doctor gets life. This is about non-specified substances, the real stuff, you might say. Now what happened to the player: one year. Which, well, it's tough, I think.

Let's look at the second one²⁹. Life for a coach who administered methandienone to a pupil who was 16 years old. Okay? Expectation again, but, no, one year. Two years in the first instance, after appeal it was one year.

Another example³⁰. A pupil was 14 years old, the coach got life; the pupil, one year.

So, basically, even if you are 14 years old and it is very clear, it is proven, that the doping was administered by an adult and he gets life for it, you still get one year as a minor.

EPO to a minor cyclist³¹. Life for the coach, which is standard as you see; the pupil, but it is a very, very complicated case all in all gets 10 years. There was more involved than only this, I can assure you, but, still, 10 years. And this EPO case was part of the reason to get this very high sanction too.

The other one I know very well because it is Dutch³²: a minor, 17 years old, a father who gave, administered, the doping, gets a life sanction; the guy gets two years after four years in the first instance.

So, the conclusion in the cases of non-specified substances is: even if it can be proven that you didn't do it yourself, you can be under pressure, under influence of an adult, you still end up with quite a severe sanction.

²⁸ FIBA Disciplinary Panel, *FIBA v. Chernysh*, decision of 15 April 2010.

²⁹ National Anti-Doping Agency of Romania Appeal Commission 2015_02, *Basarab v. ANAD*, decision of 22 June 2015; and National Anti-Doping Agency of Romania Appeal Commission 2015_01, *Capraru v. ANAD*, decision of 21 January 2015.

³⁰ National Anti-Doping Agency of Romania Hearing Commission 2010_29, *ANAD v. Trifan & Boboc*, decision of 12 August 2010; and National Anti-Doping Agency of Romania Appeal Commission 2010_09 *WADA v. Trifan*, decision of 9 December 2010.

³¹ Sport Dispute Resolution Centre of Canada Doping Tribunal, *Aubut v. CCES*, decision of 2 March 2009.

³² Royal Dutch Cycling Federation Disciplinary Committee 2016008 T, decision of 26 September 2016 and NADO Flanders Disciplinary Council 2015031 B – appeal decision of 22 January 2016.

The same question for specified substances. Exactly the same question. I looked at it again. What do you see?

Diuretics³³: the father gets six years. Because it's a specified substance, it is not automatically life, it can be lower, and in this case it became six years. The daughter, three months. It is for a specified substance; still relevant, you might say.

Twenty-seven months for the coach and the boxer was 17 years old, the boxer got nine months³⁴. It is exactly the same picture: you don't get off the hook as a minor if you can show or it is shown that an adult has been responsible for administering the substance that was found in your body.

Diuretics³⁵: five years to the coach, two years to the minor.

Okay, turning to evasion and failure to submit. Also, very interesting. Again, I had an idea that if a minor is accompanied by an adult and, again, in most cases there is an adult present during the doping control, then I thought, well, probably the behaviour of the adult will have a lot of influence on how you judge the minor. Let's look.

A tennis player comes to the doping control station, his mother is there as well³⁶. He cannot produce a sample. In the award it says «*great modesty*», I found that very interesting. And then he leaves the doping control station with his mother. His mother basically says, «Well, you can't pass water, let's go». And he goes with his mother; he's 16 years old. This is a rare case because the athlete really gets an acquittal. He is acquitted. There's no sanction. It is the only case I found in which this actually happened.

³³ SAIDS Anti-Doping Disciplinary Commission 2011_08, *SAIDS v. Andrew Pretorius*, decision of 29 September 2011; and SAIDS Anti-Doping Disciplinary Commission 2011_06, *SAIDS v. Stephanie Pretorius*, decision of 22 February 2011.

³⁴ Irish Sport Anti-Doping Appeal Panel 20111529, *Mr IS-1501 v. Irish Amateur Boxing Association*, decision of 15 May 2012, and Irish Sport Anti-Doping Disciplinary Panel 2011 IABA Disciplinary Decision 20111529, decision of 8 May 2012.

³⁵ Sport Dispute Resolution Centre of Canada Doping Tribunal, *CCES v. Gariépy*, decision of 19 January 2012 and Sport Dispute Resolution Centre of Canada Doping Tribunal, *CCES v. Pyzik*, decision of 16 August 2011.

³⁶ *Agence française de lutte contre le dopage, FFT v. Respondent M02*, decision of 8 January 2009, p. 2.

In most cases: let's take this one³⁷ a swimmer again cooperates, goes to the doping control station, only her father has a business appointment, has no time to stay. He says: «Well, I can't miss my appointment. Come, we leave» And he leaves. He takes his daughter with him. The daughter goes out. The athlete, the daughter, 16 years old, gets a one year sanction.

Third example, a father sends the DCO away³⁸. It was an out-of-competition test, the DCO comes to the door, and the father says, «No. No, I don't cooperate». He even calls his lawyer. He says, «Do I have to cooperate?» And his lawyer (not a good lawyer) says, «No». So, he was sent away. The athlete gets two years.

It's very interesting, I think, and I hope you agree with me, that basically the behaviour of the adult in these kind of cases apparently has very little influence on what we decide about the minor.

Let's look, in short, at all the jurisprudence. The number of cases is small. Seventy (70) is not much. Still, I was very glad to find them anyway. But, still, it is only 70.

The information in the awards is very limited. Too limited to go into all details that you really would like to go into. So, I say that also to warn you that maybe if you look at 700 cases there could be differences from my conclusions. I want to stress that. But, indeed, the idea of the Code, that minors should be treated exactly the way as adults, comes true. This happens. If it doesn't happen, WADA acts as the guardian of the Code and makes sure that it does happen exactly that way.

When you are a minor you will not be treated different from an adult under the Code. Even if an adult himself is to blame for the anti-doping rule violation, the minor still has to bear the consequences.

The last one, which I think is interesting as well: if there is proof of administering a non-specified substance to a youngster, it is always life for the person who administered the substance.

³⁷ CAS 2003/A/459, *Van Herk v. FINA*, award of 20 October 2003.

³⁸ CAS 2008/A/1558, *WADA v. Gertenbach*, award of 4 March 2009.

Let's try to wrap it up, the conclusions and the way forward.

Conclusions, it is a bit of repetition, but the Code basically treats minors as adults. That's basically what's going on.

This is contrary to what many people expect and believe. When I talked about my presentation with colleagues from other ADOs, etc., they all had this expectation that the outcome for minors would be different from adults, which is not true.

Minors are not tested very much. So, if minors were tested more you would have more problems. That is not very hard to predict. And they are tested less not based on the Code, not based on written policies, but based on practice.

There's a problem in all the awards that usually you have so little information. CAS awards are, of course, extensive, but all the other awards usually are very short, one-page awards, I found quite a number of them. And, in the end, all the panels follow the Code and they treat the minors as an adult even if it doesn't feel really good and even if they try in the first instance to come to a lower sanction than finally they come to. People who administer non-specified substances get life, according to the Code.

I think there are two fundamental questions.

The one, of course, is, which I have been talking about: should minors be treated the same as adults? It is fundamental to the Code.

It is what the Code means to do. And there are quite a number of awards that explain why minors should be treated as adults. Basically they all say: you're in the competition and in a competition we all have to apply to the same rules. So, we cannot make different rules for minors because that would be an inequality in the competition. That's the basic thinking behind this. But, still, I think there really is maybe even a fundamental or a philosophical question to answer: Do we really want to treat minors, whatever their ages, if they're 13 or 14, the same as adults? Also, in terms of the testing regime in the RTP and the sanctioning. The sanctioning, because it is straight under the Code, I showed you, leads to the same outcome. But in terms of testing and RTP there are differences in the practice of everyday life.

A second fundamental question, I think: Does the Code protect minors, as it tries to do? Because that is clearly in the Code. That's what the Code tries to do by heavy sanctions for those who administer prohibited substances or methods, by forcing anti-doping organisations to go into further detail in trying to find out the truth if a minor is involved, by making sure the people who are serving a sanction don't work with minors. Does it really help? Are minors protected?

More discussion is needed and more research is needed. Because I don't have the answers to these questions. Actually, I found the questions by doing this research.

Thank you.

MR BERNASCONI: Thank you very much, Herman.

Any questions from the floor at this stage? Yes.

PROFESSOR COWAN: My question is whether there's any responsibility of informing national legal authorities where an assault may have been committed?

MR RAM: Not under the Code. There's nothing about it in the Code, not at all. But basically at least NADOs usually are straight on the obligation to do so, which is an obligation under national law. From what I know about all my colleagues in the NADOs, we never hesitate at all to report these kinds of cases to the authorities. By the way, usually it doesn't end up with anything, but, you know, we report.

MR BERNASCONI: Other questions? Yes, Howard Jacobs, third row.

HOWARD JACOBS: I was just curious. In your review of the cases, has the substantial assistance provision been used much with minors for a reduction?

MR RAM: Not in one of the 70 cases I looked at. Not a single one.

HOWARD JACOBS: That's kind of surprising, isn't it?

MR RAM: Well, it becomes more surprising as time progresses. Because a number of these cases, a very small number, is from before the first Code, actually, and the majority is the Code 2003, 2009. Under the 2015 Code there's more interest for this aspect, you might say. So, if, indeed, you do the same research in ten years' time and it is still not there I would be extremely surprised, but for the time being this is what it is.

MR BERNASCONI: Herman, you said that the current rules basically seem to favour that only 2.5% of the minors below 17 and 5% below 18 are tested. Do you think one should change something or is it actually a welcome consequence of the current rules?

MR RAM: That's my personal opinion which I give you now. No, I think it is a good consequence. And I can assure you that we do exactly the same thing in the Netherlands.

Of course we have an obligation to look into reasons to test in each and every instance that we decide to test an athlete. Testing is and will always be an invasion into the life of an athlete so there always has to be a good reason to do so. I think the fact that someone is a minor is an extra reason to be very reluctant, and certainly so if it's a 13 or 14 year old athlete.

MR BERNASCONI: Other questions from the floor?

I have maybe then the last one. You said that if an adult has contributed to the ADRV of the minor, this does not lead to a reduced sanction of the minor himself or herself. Do you think that needs a change in the rules?

MR RAM: Yes, well to be very precise, there may be a certain amount of reduction of sanction in these cases but still there was a very severe sanction left there. So, I can't say there is no influence at all, but in this aspect the awards were not very clear usually. Do I think that should change? Yes. Actually I think there should be an interconnectivity for the sanction for the adult who is involved and the sanction that's left for the minor who is actually the victim of what has been going on. That's my opinion.

3. Does the 2015 World Anti-Doping Code punish the «real cheaters» more harshly?: Ms Emily Wisnosky³⁹

MR BERNASCONI: So, from the minors to another delicate topic. It is a real pleasure to introduce to you someone that really does not need introduction since she is one of the protecting angels of this fantastic event. Emily is one of the four authors of the WADA Commentary so I think you don't need to know much more than to know that Emily Wisnosky has graduated at the University of Colorado, if I'm not mistaken, is qualified as an attorney in California, and then afterwards moved to Geneva, coming then closer to us. She is also a judge at the UCI Anti-Doping Tribunal. The topic is about the new World Anti-Doping Code, is this World Anti-Doping Code bad enough.

Emily, the microphone is yours.

MS WISNOSKY: Thank you, Michele. Good afternoon, everybody. The question that my presentation raises is: does the 2015 Code punish the «real cheaters» more harshly?

To give context, WADA's first revision goal under the 2015 Code review process was to provide for longer periods of ineligibility in circumstances where athletes were really cheating and to provide more flexibility in other circumstances. In this context we'll turn to the two key sub-questions that this presentation addresses.

Especially important in light of the serious consequences in distinguishing an intentional (inflexible four-year) versus non-intentional (two-year or less) violation, the first is: What is a «real cheat» and, by extension, What exactly is an «intentional violation»? Second and related, this presentation will look at how this concept of «intentional» fits within the general legal framework of the sanctioning regime of the 2015 Code.

In order to do this, first I'll look at the theory: how «cheat» has been interpreted in the past in various circumstances, and then turn to the practice: how CAS panels have analysed and interpreted this provision since the Code came into effect. Finally, we'll conclude with some summary thoughts on the topic.

³⁹ Attorney and Author, WADA Commentary Project; Judge, UCI Anti-Doping Tribunal.

The first thing to note, looking at the definition itself, is that «*the term «intentional» is meant to identify those Athletes who cheat».*

Immediately this suggests that simply breaking the rules is not enough to be considered «cheating» since there is a stated division between violations that include cheating and violations that do not include cheating. The question then, of course, becomes, what's cheating, and for this, there is no definition provided in the Code.

In my view, it is helpful to separate this definition into two separate concepts. The first is captured by the second sentence: «*The term, therefore, requires»* in short, that the violation was committed «knowingly» or «recklessly»⁴⁰.

In terms of the second sentence, the first thing to note is that this concept of «knowing» or «recklessness» is related to the anti-doping rule violation. Violations of Article 2.1 and 2.2 are strict liability violations. This means, according to the definition of «*Strict Liability»* there's no need to have intention, there's no need to have negligence. Fault is completely irrelevant. None of these are elements of the anti-doping rule violation.

This could suggest that the knowledge and recklessness that the second sentence addresses is linked specifically to the violation and does not include the broader notions of intent to enhance performance, intent to cheat, that is often discussed in the case law; it is strictly a question of does the athlete intend to have, in the context of Article 2.1, the substance present in their sample or, in the context of 2.2, to have used the substance in question.

Now we turn to the question of what «something else» is needed (beyond «knowledge» or «recklessness») to constitute «cheating». And if so, what is this «something else»? Are we talking about aggravating circumstances? Are we talking about an intent? If we are talking about an intent, an intent to do what? An intent to enhance performance, or

perhaps, to gain an unfair advantage in a different context, or are we simply talking about the athlete's purpose or motive, the reason that they committed the violation?

In our article setting out the regime of sanctions under the 2015 Code⁴¹, what we suggested as a first observation is that it's not completely clear by just taking this provision at face value whether the role of the cheat is something substantive or it is more to direct the political message of WADA's revision goal of punishing real cheats more harshly. What we suggested is it is more than just a political message and it does include something that's more than strict knowing or reckless commission of an anti-doping rule violation. We suggested that perhaps there's a role for purpose or motive, that the violation is at least coloured with a sense of wrongdoing. This wrongdoing might be intent to enhance performance or another type of intent to cheat which could include, for example, the use of masking substances to hide the use of a performance enhancing substance.

We also wondered if it perhaps is linked to the concept of a high degree of fault. We also noted that there's probably a link with the substance itself. For example, violations that involve EPO are much more difficult for the athlete to prove that the athlete was not intentional, because it is usually very difficult to explain the presence of EPO in your system absent knowing or intentional use, whereas that might not be true in cases with, for example, clenbuterol, which has been involved in a number of contamination cases both in supplements and meat.

Even before this revision, a general notion of «cheating» in anti-doping was apparent. Past CAS case law shows a clear consensus that there is a difference between inadvertent violations and violations that involve cheating⁴². That those two types of violations should be treated differently is a theme that has appeared throughout CAS case law.

⁴⁰ EDITORS' NOTE: The relevant portion of Article 10.2.3 of the 2015 Code is as follows: «*As used in Articles 10.2 and 10.3, the term «intentional» is meant to identify those Athletes who cheat. The term, therefore, requires that the Athlete or other Person engaged in conduct which he or she knew constituted an anti-doping rule violation or knew that there was a significant risk that the conduct might constitute or result in an anti-doping rule violation and manifestly disregarded that risk».*

⁴¹ Rigozzi A, Haas U, Wisnosky E, Viret M (2015) Breaking down the process for determining a basic sanction under the 2015 World Anti-Doping Code. *International Sports Law Journal*, 15: 3-48.

⁴² See CAS 95/122, *National Wheelchair Basketball Association (NWBA) v. IPC*, award of 5 March 1996, para. 13; CAS 2013/A/3029, *WADA v. West*, award of 22 November 2013, para 54; CAS 96/149, *A.C. v. FINA*, award of 13 March 1997, para. 30; CAS 2007/A/1362, *Comitato Olimpico Nazionale Italiano (CONI) v. Petacchi*, award of 5 May 2008, para. 7.7.

Not to go into too much detail with all of the different ways that the term «cheat» has been mentioned and used in past CAS case law, it is enough to mention that there is a number of different situations in which cheating has been implicated, for example, and this can be, as I mentioned earlier, a link to the substance involved or it could be more generally an intent to enhance performance or to gain an improper advantage in a different way. In other words, a difference exists between a breach of the rules that involves «cheating» and a technical, quote/unquote, breach of the rules.

Turning to the 2015 Code review, perhaps it is helpful in understanding this concept of «cheat» to look at what WADA and what the Code drafters might have been thinking.

Looking at some of the Executive Committee meeting minutes, «performance enhancement» was part of the conversation⁴³. Another trend that emerged from both the Executive Committee meeting minutes and from the stakeholder comments is this concept of that under the 2009 Code, the aggravating circumstances provision was under utilized; that panels were hesitant to apply this. There was a sense that «real cheaters» weren't getting a four-year violation.

One gets a sense that this problem was at the forefront of the drafters' mind, looking at the different versions of the Code, starting with version 1. In version 1 of the 2015 Code, instead of the current situation, was a list of the different circumstances that would mandatorily require a doubling of the sanction from two to four years. This approach was heavily criticised by stakeholders for including too many violations, and especially those that might not be worthy of such a serious sanction.

The next approach, in version 2, was very similar in concept to what we have now, but with provisions addressing three different types of substances instead of two. Whereas now we divide the cases based on specified substances or non-specified substances, they

⁴³ EDITORS' NOTE: See in particular: WADA, Minutes of the WADA Executive Committee meeting, 10 September 2012, p. 20, https://www.wada-ama.org/sites/default/files/resources/files/wada_executive_committee_meeting_minutes_10_sept_2012_final.pdf; WADA, Minutes of the WADA Executive Committee meeting, 11 September 2013, pp. 21-22, https://www.wada-ama.org/sites/default/files/resources/files/executive_committee_minutes_11_september_2013_buenos_aires_final.pdf and WADA, Minutes of the WADA Executive Committee meeting, 11 May 2013, p. 28, https://www.wada-ama.org/sites/default/files/resources/files/ecminutes_11_may2013_eng_final_.pdf.

created three categories out of those two, an approach which was again criticised for being too complex and over-inclusive.

Then version 3, very similar to the current wording, and in version 4, we finally get the introduction of the notion of «cheat» in the violation.

The other question that we raised in our article is whether this concept of intentional is similar or can be compared to a high fault violation under the Code.

We know from the examples in Appendix 2 of the Code that intentional violations and no fault or negligence violations and no significant fault or negligence violations are different: They are two separate notions. But we don't know exactly where this boundary occurs. And with this, one wonders if fault is a linear concept under the Code, where on one hand we have no fault or negligence, which has low fault, moving, on the other hand, all the way up to high fault, which would be cheating. If this is true, the definition of fault would probably reflect this, but in reality, the definition of fault is a bit inconclusive here. «*Fault*», as newly defined under the 2015 Code begins with «*any breach of duty or any lack of care*». In our view, we thought «*breach of duty*» is probably broad enough to capture this notion of high fault as cheating, but not with any particularity.

In sum, in theory, what we have under the 2015 Code is this notion of fault, we have this notion of intentional, and there are subsidiary notions such as performance enhancement, cheating; there's the 2009 notion of aggravating circumstances, degree of fault, seriousness, but there's not a lot of understanding and there's not a lot of clues under the 2015 Code about how these concepts relate to each other.

Now let's turn to CAS case law and see how this concept has been interpreted since the new Code came into effect, starting with a survey, an overview of how intentional and cheating has been mentioned and discussed in CAS case law since the new Code came into effect.

In the *Ademi* case, the CAS panel mentions an «*intention to cheat*»⁴⁴. In the *Villanueva* case, the CAS panel mentions a «*Proof of Lack of Intent*» without specifically noting what the intention is for⁴⁵.

There's also notions of deliberate cheating. We have violations that are deemed to be intentional, and in the *Gogia* case, we actually get an explicit reference to the ability of the athlete to establish the absence of «*intention to enhance his sporting performance*»⁴⁶. The *Schwazer* case mentions, in the context of intentional, the motive of the athlete in committing this violation⁴⁷. Finally, in the *Radjen* case, we get a more developed understanding of cheat. What the *Radjen* panel said was that parties agreed that cheating is a key element of intent, and noted: «*By using a prohibited substance, an athlete wishes to obtain an advantage in comparison to other athletes. The athlete's will is directed to achieve this advantage not only based on the[ir] own physical and/or psychical abilities as an athlete, but on additionally taking the prohibited substance*»⁴⁸.

This passage captures the notion that «cheating» does require «something else»; that is an intent to cheat covers an intent to enhance performance or gain an unfair advantage in a different sort of way.

Now let's turn to some specific examples of cases to see what issues have developed and what this might tell us about the question of whether the Code punishes real cheats more harshly.

In the *Alvarez* case the panel made this statement: «*The Athlete bears the burden of establishing that the violation was not intentional within the above meaning, and it naturally follows that the athlete must also establish how the substance entered her body*»⁴⁹.

⁴⁴ CAS 2016/A/4676, *Ademi v. UEFA*, award of 24 March 2017, para. 76.

⁴⁵ CAS 2016/A/4534, *Fiol Villanueva v. FINA*, award of 16 March 2017.

⁴⁶ CAS 2015/A/4160, *WADA v. Gogia*, award of 17 March 2016, para. 72.

⁴⁷ CAS 2016/A/4707, *Schwazer v. IAAF*, award of 30 January 2017, para. 102.

⁴⁸ CAS 2015/A/4200, *Radjen v. FINA*, award of 17 June 2016, para. 7.4.

⁴⁹ CAS 2016/A/4377, *WADA v. Alvarez Caicedo*, award of 29 June 2016, para. 51.

This statement has sparked a debate, which appears to be almost the key notion, surrounding the question of: Do we need to establish the source of the substance in order to establish that the violation was not intentional?

It is clear where this reasoning came from. In the context of no significant fault or negligence the Code says explicitly that you do need to establish the source of the substance, whereas it is left out in the definition of «*intentional*». There is a line of CAS case law that has interpreted the need to establish the source of substance in the context of no significant fault or negligence, as an integral part of establishing an athlete's level of fault.

What this shows in the bigger picture is that the relationship between an intentional analysis under the 2015 Code and the relationship between a fault analysis is not clear-cut. It also demonstrates that CAS panels have been willing to borrow concepts directly from a no significant fault or negligence analysis and apply them directly to an intentional analysis. It is not clear that this is completely justified. When we look at the next two cases we'll explore this question in a bit more detail.

Which brings us to the next case, *Villanueva v. FINA*⁵⁰. In this case, the athlete tested positive for stanozolol. He had all of his supplements tested, there was no trace of stanozolol. So, he submitted whatever evidence he could, including his assertion of innocence, character evidence from his coach, hair analysis, a lie detector test, and then he also submitted evidence that the recent advances in his performance were due to better conditioning and not from taking substances⁵¹.

In this case, the *Villanueva* panel listed a number of factors arguing for the need to establish the source of the substance and the need not to. Some key factors it mentioned arguing for not needing to establish the source of the substance is that, importantly, there is no explicit mention of this requirement in the rules⁵². It is mentioned elsewhere, and so its absence in the definition of intentional should be considered deliberate. It

⁵⁰ CAS 2016/A/4534, *Fiol Villanueva v. FINA*, award of 16 March 2017.

⁵¹ *Ibid.* at para. 40.

⁵² *Ibid.* at para. 35.

also mentioned notions of interpretation such as *contra proferentem*, which would support the notion that you don't need to establish the source of the substance.

The main arguments for the need to establish the source of the substance were the practical difficulty that it's not obvious how the CAS panel may arrive at a finding that the violation was not intentional in the absence of establishing the source of a substance. Again, it referred to the constant case law in the context of the fault analysis, the no significant fault or negligence, that did consider this critical.

In this case, on balance, the CAS panel dismissed the notions that had arisen in the several previous cases under 2015, saying that it is not necessary to establish the source of the substance and, furthermore, it might be persuaded by an athlete's simple assertion of his innocence of intent when considering not only his demeanour but also his character and history, and so there is no need to establish the source of the substance. In the end, however, in this case in particular, the panel is not impressed that the athlete managed to establish the source and the athlete ended up with a four-year period of ineligibility, with the panel noting and this is importantly that their choice is not binary. They don't need to decide whether the violation was intentional or not intentional. With the burden of proof in play all they need to determine is whether the athlete met this burden of proof and, if they didn't, it's four years.

So, this case must be compared to the *Ademi* case⁵³. The facts in the *Ademi* case are a little bit different. In this case a footballer claimed that the source of the same substance, coincidentally, stanozolol in his substance was a result of contamination in pills that he received from his physio, pills that he also checked with his club's doctor to make sure that there was no prohibited substance in them. He took these pills and then, long story short, he had these pills analysed by various labs, with varying results, and the panel found that the scientific evidence was inconclusive⁵⁴.

What the CAS panel did was it found that the source of the substance was not established but, nevertheless, the violation was not intentional. It noted that the athlete's

scenario, this possibility that he took the pills and the pills were not necessarily contaminated or manipulated, but he did take the pills, was more plausible than the alternative scenario provided by UEFA, which was a plan masterminded by the player under which he knowingly and intentionally used stanozolol and then manipulated the pills⁵⁵.

Interestingly, later in the same award, at the very end, in the context of establishing the source and then a no significant fault or negligence analysis, it makes the following observation. There were two different coloured pills in the case at hand, and it said that «[w]ithout further proof this [existence of these two different coloured pills] is more likely to be the result of manipulation and not contamination»⁵⁶.

Where does this leave us? Under the standard applied does this mean that the CAS panel thinks that a third non-intentional scenario is more likely? Does it mean that the CAS panel thought that he unintentionally took the stanozolol but then manipulated the results to achieve this, which seems to be excluded by the earlier part of the award, or does the panel somehow differentiate this analysis of the source in between the two different sections of the award, on one hand in the context of intentional and on the other hand in the context of no significant fault or negligence? Which leads to the question, one wonders if we're missing the point of this discussion on the source of the substance. The question of the origin of the substance is part of the factual background of the case that the hearing panel must decide upon. So, it seems questionable to treat it as some sort of threshold question that would facilitate an analysis of intentional, nor would it seem justified to evaluate these facts differently and, perhaps, incoherently in the two different parts of the award. This makes the award itself internally difficult to reconcile.

While the panel's acceptance that «*not intentional*» may be established without the precise source of the substance is a trend that should probably be approved, the application of this trend by the *Ademi* panel appears more questionable.

⁵³ CAS 2016/A/4676, *Ademi v. UEFA*, award of 24 March.

⁵⁴ *Ibid.* at para. 73.

⁵⁵ *Ibid.* at para. 77.

⁵⁶ *Ibid.* at para. 88.

More generally, for both the question of whether the violation was intentional and for whether the question of the violation was committed with no significant fault or negligence, the athlete bears the same burden of proof to the standard of the balance of probabilities to establish the facts of the case. Then, once the athlete establishes the facts of case, it is then for the CAS panel to determine whether the facts as submitted have been established and whether they properly underlie a finding of intentional or of no significant fault or negligence. The key difference is that in the case of intentional it is enough for the athlete to establish that the violation was not committed knowingly or recklessly.

So, if we turn back to the definition of intentional, where it is required that the athlete committed the violation knowingly or recklessly, once we eliminate this possibility the athlete has met his burden to prove that it is not intentional. For example, if we have three scenarios, one of them being a doping scenario, in the case of non-intentional what the athlete needs to do is to eliminate the doping scenario, make it seem that this is the less likely scenario as compared to the other two. Once it has done that, at this level it is not important whether it came from A or B, but whether it was taken non-intentionally. This is in contrast to the analysis of no significant fault or negligence which is, again, supported by a long line of CAS jurisprudence which says that it is important whether it is A, B or C, how the substance entered. You cannot only eliminate the, quote/unquote, doping scenario, you have to more particularly show that it came from contamination, for example, or a different non-intentional manner into your system. This would appear to be the difference between the analysis of the source in the context of intentional and of no significant fault or negligence.

Just one last case before we close. In the *Schwazer* case⁵⁷, which involved the race walker whose sample was re-tested, the panel made the following observation, which is very similar to the binary observation made in the *Ademi* case: *«It is exactly this situation in limbo that the applicable regulations wish to solve by attributing the risk that the true*

⁵⁷ CAS 2016/A/4707, *Schwazer v. IAAF*, award of 30 January.

motive of the ingestion of a prohibited substance by athlete[s] cannot be ascertained to the latter»⁵⁸.

What this captures is this notion that, as mentioned, the question of 'intentional' or 'not intentional' is not a binary choice, in the system that we have it is a burden of proof that comes into play here, which means that the panel does not make a finding, necessarily, on whether the violation was intentional or not intentional. The athletes who are unable to establish that a violation is not intentional due to the operation of the burden of proof are also assigned a four-year sanction.

Now to wrap it all up. Going back to our initial theory on what intentional meant, there does seem to be, in the 2015 CAS cases as well, this same notion that there is a clear conceptual difference between 'inadvertent' and 'cheating' violations, and there does appear to be a fairly strong consensus that the role of cheat is substantive—that it does add something more than the 'simple' knowing or reckless commission of an anti-doping rule violation. In many cases, this 'something else' is interpreted as an intent to enhance performance or an intent to gain some other unfair advantage.

The questions of what is this 'something' more particularly, what role the substance plays, and what role the other circumstances play, seem to be in the process of being refined.

Whether cheating is the same thing as a high degree of fault is very difficult to say under this Code because, as mentioned earlier, there's not many textual clues in this Code as to how the different provisions relate to each other and whether this concept of fault is a broad concept that includes this concept of intentional and it should be viewed as one coherent whole or these are different notions to be analysed in separate ways. It will be interesting to see how CAS case law develops in this area or perhaps in a later revision of the Code.

Given all of this, I think we can fairly question whether the boundary between intentional and non-intentional violations is clear enough to give sufficient predictability to athletes to know whether their behaviour would fall on one side or the other of the

⁵⁸ *Ibid.* at para. 102.

divide, and for hearing panels to reach consistent conclusions, as well. This is particularly concerning since the question of which side of the divide the violation falls is not insignificant, indeed, it is the difference between a two-year (or less) ban and a four-year ban.

Finally, there is a clear trend that panels have been willing to apply the burden of proof in cases where it is not clear that the athlete was cheating. This is explicitly mentioned in a few cases.

Coming back to our original question, does the 2015 Anti-Doping Code punish the real cheaters more harshly? I would say yes, it does. The four-year period of ineligibility has been applied regularly under the new Code, but we're also capturing some other situations where it is not clear the athlete cheated. So, we can raise the more general question of whether the Code is casting the net too broadly and is it fair to be assigning heavy sanctions systematically, which is to say, is this structure leading to fair results knowing that there are circumstances where it is not positively established that the athlete was «cheating», yet nevertheless receive a four-year period of ineligibility.

Thank you.

MR BERNASCONI: Thank you very much, Emily.

Any questions from the floor? There's one, the last row. Ross Wenzel.

ROSS WENZEL: Emily, thanks for that, that was a really interesting presentation.

On the point about if you don't establish the source is it necessarily deemed to be intentional, I think it's fair to say that the first few cases from CAS, maybe five, six awards, all went the same way as *Alvarez* and said, «Look, if you can't establish origin, how do we even begin to assess what fault you had, whether it is intentional or not?» There have been the two awards that you mentioned more recently, the *Villanueva* case and the *Ademi* case. And it is interesting, because you read out, I think it's from paragraph 37 of the *Villanueva* case, you read out the sentence which says, essentially: «We don't exclude the possibility that an athlete, based on their demeanour, attitude, credibility etc. could persuade us, even without establishing the origin, that it wasn't intentional». The rest of that award, and I know one of the arbitrators is in the room, very clearly says that that was reserved for exceptional circumstances. So, I'm interested in your view on how

exceptional those circumstances would have to be. I mean I, for instance, could envisage a case where, if a chess player, for instance, tested positive for a steroid, it would be difficult to say that that was with an intent to cheat or the kind of scenario that we saw in *Contador* where everyone accepted that it wasn't an intentional or a voluntary ingestion. But I certainly, speaking for WADA as well, would take some umbrage with the view that merely by protesting one's innocence, even very convincingly, and having a very good attitude at the hearing, that that would be sufficient to establish a lack of intention. That's the first point.

With respect to the second point, which was what do you have to do to have an intention to or to be a cheat or a cheater? You didn't mention the case of Dane Pereira. I'm not sure whether it's public, but this was an Indian football player who had a prescription for, unless I'm mistaken, nandrolone, from a doctor, and the panel, the sole arbitrator in that case and I think he may be in the room as well, found that it was, nonetheless, an intentional anti-doping rule violation based on the fact that the athlete was so reckless. It was clear from the prescription that it contained a prohibited substance, he took it repeatedly over a course of weeks or months, and in those circumstances it had to be seen as, I guess you'd call it, *dolus eventualis* under the old indirect intention from *Qerimaj*⁵⁹ under the pre 2015 case law. So, I'm interested in your view to those two points: how exceptional it would have to be under *Villanueva* and how you would fit in a decision like Dane Pereira where it was on medical prescription in connection with a pathology but, nonetheless, it was held to be an intentional violation due to the fact that there was such extreme recklessness.

MS WISNOSKY: First, your point about the assertion. I would tend to agree. The first time I read that sentence, it really pops out at you, because CAS case law repeats over and over that a mere denial is not enough, that an athlete has to do more than just say «I didn't do it», in short because this is the same tool that is as likely to be used as from an athlete who is guilty as an athlete who is not guilty. So, yes, reading that case, that sentence really pops out. I think that panel diminished the force of that statement later in the award in its analysis when it said, something along the lines of «Well, a mere

⁵⁹ CAS 2012/A/2822, *Qerimaj v. International Weightlifting Federation (IWF)*, award of 12 September 2012.

denial is basically not enough», and leaving that as a very, very hypothetical possibility, calling upon the example of George Washington and his cherry tree.

In terms of how exceptional would it need to be, in the examples, I would tend to agree that it needs to be pretty exceptional. Which I know isn't a very precise answer, but I think that the cases you mentioned are good examples, where the evidence shows that even if you don't know where the substance came from, for example, the *Contador* case, where the panel accepted it came from contaminated supplements but not which one and not where, where the facts of the case don't make sense with a doping scenario, where you can really show by the evidence that you provide that it just, whether it be the substance used, whether it be the situation, the timing, all of the evidence comes together and suggests that really any other situation is more likely than a doping scenario.

As per the *Pereira* and the medical case, that's a tough call. I haven't looked at it so I can't really comment in a lot of detail on it, but I do think this is one of the situations where it's a difficult analysis for a panel. Because medication, like recreational substances, is something you take knowingly. You put it in your mouth knowing that it potentially contains a prohibited substance. So, yes, I do think that's a good example of a very difficult case to establish under the current framework, along with recreational substances which we have exceptions for written into the Code.

MR BERNASCONI: Thank you very much.

Another question? Yes, Brianna Quinn over there, then we go in the front.

BRIANNA QUINN: I just wanted to ask you, if we're talking about this hypothetical case where a panel has accepted, «yes, this isn't intentional because a doping scenario is excluded, so the sanction will not be 4 years», how do you feel about the fact that if the source of the substance is not proven that person still gets a two-year penalty?

MS WISNOSKY: That, for me, is supported by a constant line of case law. I think it is true that a two-year penalty is also harsh, which I think we can lose sight of now that we have a four-year penalty. Since we are basically relative thinkers, all of a sudden, once we have the possibility of a four-year sanction, two years doesn't look like that much. So, perhaps there's a tendency to now let go of the fact that two years is also an

important sanction for athletes. But at the same time this is a situation that we've seen over and over again in CAS case law. Under the 2009 Code the CAS panels have said that if you can't determine the source of a substance then this is your burden, and that has been seen to be fair.

BRIANNA QUINN: Is that where you are saying that maybe the net is cast a bit wide? Because the 2015 Code was supposed to be more flexible in cases like that. Where you've said this isn't intentional so we don't want to give you this very high penalty, but you're still getting the two years. Is that what you meant by casting the net too far?

MS WISNOSKY: No, I was specifically thinking about establishing intentional violations. But, yes, I think that's a good point. Since the other part of the revision goal was to provide more flexibility in other circumstances, I think the «other circumstances» are pretty similar to the last version of the Code. I don't think there's a drastic difference. And it could potentially arguably be harsher, especially for specified substances, whereas before, all you had to do was establish the source of the substance and that there was no intent to enhance performance. Now you have to prove no significant fault or negligence, which could arguably be seen as being less flexible in other circumstances.

MR BERNASCONI: Thank you very much. The last question, Mr Michael Beloff.

MICHAEL BELOFF QC: Can I just say, one shouldn't speak of their own awards, but I don't want *Villanueva* to be misunderstood.

The point about, as it were, demeanour and protestation, we were just simply examining whether, in theory, there was something that you could exculpate yourself without proving origin.

We weren't saying that this was likely to happen in any realistic circumstance.

The second point is, of course, that in the fullness of time, one will see that those cases in which someone was exculpated without proof of origin will prove to be extremely rare in comparison with those cases where they are. It is just simply a prophecy, which I think will be indicated by events.

I just want to ask you a question, though. It seems to me that in the law there is well-known hierarchy, where you start with intention, you go down to reckless, you have gross negligence, negligence, no fault at all. Now although there's that hierarchy, I think all legal systems would say that the Rubicon is crossed between something that is intentional, however defined, and something that is fault, however defined. I don't see the scope for suggesting that there really is just a spectrum in which one overlaps into the other. Do you still think there is, and why?

MS WISNOSKY: I think, especially how the fault provision is worded, that with the exception of the reference to breach of duty, the rest of the provision is very much structured such that on one hand, you are considering a lack of care with an expected standard of behaviour, and you're analysing this departure of the behaviour which is fundamentally different than asking whether a violation was committed with an intent to enhance performance. But from what I understand, in some legal systems there is a concept of intentional fault that's incorporated into that, which I think is one of the reasons why this Code is a bit ambiguous on this topic and needs a bit more work in this area.

Are we talking about fault as more of a negligence analysis, in that we define a standard of care and look to see whether the conduct in the case falls short of this, does the term «*Fault*» as used in the Code create a cohesive regime, in which a violation committed with high fault could also incorporate this concept of cheating.

MR BERNASCONI: Thank you very much.

I have to say I think Emily earns, really, a big applause for the excellent presentation and also really for being such a fantastic organiser. We are all very pleased.

4. Shifting the focus from testing to intelligence & investigations – Lessons learned: Mr Mathieu Holz⁶⁰

MR BERNASCONI: Once it was maybe easier to establish doping by simply taking a sample, nowadays this is not possible any more. In the presence of the next speaker I tend always to ask myself «did I do something wrong?» because of his big competence. I'm very pleased to introduce to you Mathieu Holz. Mathieu was previously Major of the French Gendarmerie, an INTERPOL agent, this is why I always a little bit ask myself «did I do everything fine?» No, more seriously, he is now with WADA since two, three years, and he will tell us how important, maybe sadly, investigations have become in the fight against doping.

Thank you very much, Mathieu.

MR HOLZ: Thank you very much, Michele.

Don't worry, I lost all my investigative capacity joining WADA, so no risk!

Dear colleagues, good afternoon. It is a pleasure for me to be here among you today. I would like to thank more particularly Professor Antonio Rigozzi and his team to invite an investigator to participate in this meeting.

As you can hear, I am French, and I come from law enforcement; that means I'm used to speaking fast. If I speak too fast just raise your hand and say «Calm down». I can slow down, but I will not promise to speak with a perfect English accent.

[LAUGHTER]

Shortly, to introduce myself, as Michele said, I'm a Major in the French Gendarmerie. I'm still active so I can still get the capacity to come back to the French Gendarmerie; I'm just on leave a few years.

I was a deputy head of a regional criminal investigation squad in France, and I was an INTERPOL criminal intelligence officer in charge of anti-doping issues.

⁶⁰ Manager, Intelligence and Investigations; World Anti-Doping Agency.

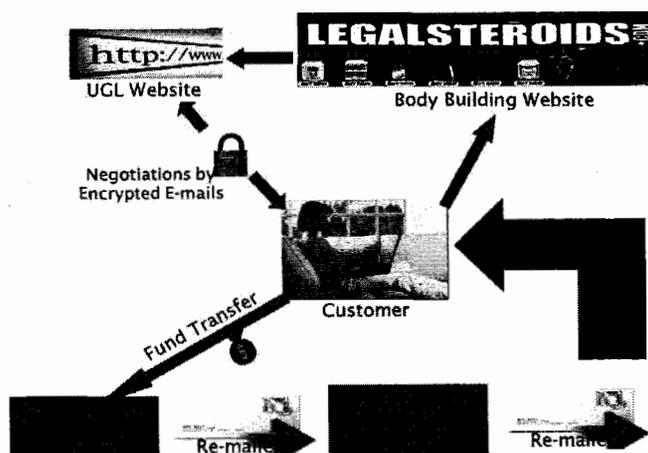
In 2009 WADA signed a memorandum of understanding with INTERPOL to facilitate exchange of information between law enforcement regarding doping issues and to support WADA facing some specific cases.

As a short background, I didn't discover doping when I joined WADA, but when I was in Gendarmerie I have been involved in several Tour de France as an investigator to do some interviews, surveillance, wire taps, GPS tracking, all the funny things we can do in law enforcement, and we supported a specialised unit from Paris in charge of pharmaceutical crime (OCLAESP – *Office Central de Lutte contre les Atteintes à l'Environnement et à la Santé Publique*).

I managed also some cases of trafficking of anabolic steroid between Belgium and eastern France.

When I joined INTERPOL, one of my main tasks was to coordinate international investigations related to doping and to support our member countries. So, in a joint task force we supported European investigation teams between Moldova and Ukraine and we gathered the support of US DEA, European law enforcement and European structures. Of course I really discovered top-level athletes investigation when I was asked by USADA and US law enforcement to support them during the investigation on Lance Armstrong.

Just to illustrate it, when I work on trafficking of doping substance, this is a raw shot:



We can explain to you how easy and how fast it goes when you want to buy some steroid and doping substance on Internet. If you want to make money, I highly recommend to do this [LAUGHTER]. Because if you start drug trafficking with cannabis, heroin, cocaine, you take a lot of risk, but with this structure, directly connected with China, you have more or less no risk and you make a lot of money. We work a lot on it, but it is still very easy; you make money and you have few risks.

Another picture: [indicating photograph showing a group of people]

This is when we supported the US Anti-Doping Agency and the US law enforcement and when we managed a bilateral meeting between US delegation and European delegation. The main objective was to directly exchange information, to prepare a rogatory letter. During this kind of meeting between public prosecutor and investigator, directly speaking to each other with a translator, we save, I would say, six or eight months how to prepare the rogatory letter and how to send the rogatory letter to different European countries.

So, lessons learned from my side from these different cases and from the involvement in the Lance Armstrong case: that cooperation with law enforcement is key to effectively dismantle doping networks with international connections. If you are an anti-doping agency or international support federation alone, it will be more or less impossible to dismantle complex doping networks when you have a connection with a different country and when you need some specific investigative capacities to target cheaters.

Another lesson is the importance of intelligence gathering. Good intelligence, timely, accurate, is really helpful. It's common sense to say that, but I remember on Tour de France I received intelligence from some of my colleagues, I will not say the name, but it is:

- «A car is coming in from Cosy Hôtel».
- «Yes? And?»
- «The guy is leaving the car. He has a bag. He go inside the hotel».
- «Okay, but which hotel, which car? Can you just be more precise because we have to surveil probably like 35 hotels».
- «Ah, yes, sorry. I come back, I give you the name».

Too late. So, timely, accurate intelligence.

One of my points of view is that testing alone is not always sufficient to identify top-level cheaters. Some top-level athletes get the financial support and financial capacities to take advantage of scientific progress, and with the medical support they can always be one step ahead in front of national anti-doping agencies and anti-doping organisations. So, with this exchange of information in connection with law enforcement, it is possible to identify them and to arrest them, if possible.

Of course, from my point of view, it is a necessity to have a transverse approach and to feed testing units with accurate and timely intelligence.

As a consequence, the World Anti-Doping Code 2015 and International Standard for Testing and Investigation allows WADA and anti-doping organisations to lead investigations.

When I meet some doping control officers I always say to them, «Calm down. It's not because the Code allows you to do investigations that you are James Bond and you will be able to make surveillance, follow some athletes, ask the athlete to open the bag», and these kinds of things. Some doping control officers try to do it, but it is not allowed. Investigation is really to gather as much as possible evidence to materialise an anti-doping rule investigation and to identify cheaters. So, many of them are really disappointed when they meet me because they say, «Okay, all the fun job is not possible for us. We have to follow on a daily basis what we do before». Of course these different documents highlight the concept of non-analytical evidence, like different missed tests or an athlete who opens the window, jumps outside and escapes from the training camp because he sees a doping control officer arriving in the same place.

Since 2015, WADA has the capacity to lead investigations and we used these capacities and launched two independent commissions, Pound and McLaren. You will excuse me, but I will not go too much into detail because this has been described several times in different meetings. At the same time we have also enhanced our own investigative capacities and moved from two staff to six persons, probably in the upcoming years to 10 persons. For me, the direct effect, I get a private life and I'm very happy; I don't have to run everywhere all the time.

We divided this intelligence and investigation department between Montreal, where we have one team and one analyst specialised in open-source intelligence, plus our directors, Günther Younger, coming from INTERPOL, same as me, and one coordinator, and one team in Lausanne, myself and one analyst specialised in ABP and in charge to analyse trend and patterns on ABP values.

As I say, we are five persons with law enforcement backgrounds, one coordinator. We get the great chance and the opportunity to operate independently from the rest of the agency and we can run investigations without seeking any approval within the agency, which for a few people is a little bit strange because they are used to discuss everything all together, now it is really close. We have a separate office and we don't exchange so much information within WADA. When an investigation is complete we prepare an intelligence report with recommendations and we forward to WADA Director General Olivier Niggli for his decision.

A key point, more particularly following ATP-28 Fancy Bears cyber-attack attempts (without success), we use a police style database and we have a secure storage in Montreal in a specific server, and it is double encrypted. We don't involve this database with other departments, only our department gets direct access to our information, and we hide the server between all the WADA servers. It is another difficulty for Fancy Bears if they would like to go inside. I know they are extremely strong and if they want they can do a lot of damage, but the more we put some barriers and difficulties, the more it will take time for them.

As I say, we use a police database, i2 iBase and Notebook analyst. It is what I do in Gendarmerie, in INTERPOL and Europol. It is to gather information to identify trends, connections, relationships between persons, and we use Notebook Analyst, it's a link analysis software, really appreciated by judges because it can explain to you with one chart a complex investigation.

We have some dedicated analysis tools, like Tableau, Matlab, for ABP blood and steroid values, and OSINT search tools to go inside the deep web. We have also some specific Internet research on deep web and on dark net using Thor software.

If you are not very familiar, like me in some way, with Internet, you have three different webs. You have what we call the Surface Web we use on a daily basis with Google, Yahoo, Wikipedia, everything. Then you have what we call the Deep Web. It is 90% of information within the Internet but not directly referred inside Google or other search tools. The Dark Net is completely disconnected. It is a specific web where you have, I will say, all the dark sides of human beings. I mean drugs, murder orders, children for porn abuse, and so on. This can only be reached through specific software. But we will do this kind of research because we know in this kind of dark net some top-level cheaters have specific forums where they exchange about new substances and new doping protocols.

Of course we are not free to lead an investigation without any surveillance. We are not cowboys. We cannot run in every country and start investigations everywhere. We have an independent supervisor to ensure that all the investigations we lead are done in the proper way and we respect all WADA internal policies as well as the WADA investigation policy. So, an independent supervisor, probably a former public prosecutor with a strong experience in criminal investigation and international case, will be appointed by the WADA Executive Committee soon, and next year he will spend some days with us to review our process of investigation, the way we collect statements from athletes, coaches, support staff, and so on.

Then, after his annual audit, he will submit a written report to WADA's Director General and Executive Committee, and the conclusions of the report will be put on the public website.

This means concretely that today we are in a rush to establish all our investigative policy, which I will slightly describe later, but to have in place all the process. In fact it is easy for me, it is a copy/paste of the way I work with my boss in INTERPOL and in Gendarmerie, so it is really a mechanical process.

Coming back to our source of information.

Of course we receive allegations of anti-doping rule violations from national anti-doping organisations or sport federations. We analyse ABP blood values on a daily basis. We receive information from informants or whistle-blowers on our web site. We have some information from testing and sometimes we get a capacity to do our own testing,

target testing, on specific countries, specific sports, which is really helpful, and as well open-source information, open-source intelligence.

On a daily basis, when we start an investigation we follow, as I say, a mechanical process. It is a five-step, five-stage process, starting with collecting information and besides we use a matrix decision system to decide if it is a case we will investigate. If it is a case, we will refer to national anti-doping agency or sport federation with guidance, and if it is a case that can be led by any sport organisation because it is only target testing.

Then we analyse the different information we receive. We investigate to confirm or to contradict. We prepare some hypotheses, and then we conclude and we prepare intelligence report.

We forward to WADA senior management with recommendations like, «This NADO, this laboratory, is non-compliant because it breaches our standard or it makes many, many mistakes». We do, as well, a follow-up with the NADO, with the federation, and with involved parties.

One of the main sources of information is whistle-blowers. During the Pound and McLaren independent commission and investigation, we received a lot of crucial information from whistle-blowers. Not only from Stepanov, but as well from other people who stayed quiet and didn't go in front of media but provided us key points.

Really the best way to get information is to have a contact with a whistle-blower. So, we set up a specific website, an application, to encourage people to come in front of WADA and to disclose some information.

It is really helpful to break «omertà». I worked for several years on the Tour de France and I know, having interviewed different athletes, it is very difficult for them to speak because they have the pressure of the coach, they have the pressure of the team, they have the pressure of the manager, they have the pressure of all the marketing unit branding their name just behind them, and for them to go in front, in public, to reveal some evidence is very difficult. This kind of system helps us because we can protect anonymously the whistle-blower when he discloses some information.

Of course there is still a high risk of retaliation, like psychological or physical, for a whistle-blower if he goes in front of the public. As an example, we have been requested

some weeks ago to prevent and to advise to a Russian athlete who would like to disclose some information in front of public. My director says, «Never go in front of media, because once your face is on TV you are burned, no one will speak to you, people will exclude you, you will be under pressure and your life will change completely». It was his choice to go in front of a German TV show and disclose his face and identity. Some days after, a nice person from FSB knocked on the door and asked him some questions. Some weeks after, he escaped from Russia to another country. This is really a perfect example of what not to do, and inside our whistle-blower policy we really insist on the fact: «you're an adult, you do what you want, but keep in mind that if you go in front of the public, if you disclose your identity, your life will change definitively and you will not be able to be an athlete anymore and you will face a lot of problems. We can ensure you remain anonymous».

If he wants to do that, he will sign a contract with us; if you don't want, we cannot protect you.

As I say, this whistle-blower programme, Speak Up!, implemented mid-January. We do a distinction between informant and whistle-blower. Informant is a person who comes to WADA and says, «I saw this athlete using stanozolol during a training and I know that he will be part of a competition in two weeks. I have no more information to share with you, but you are free to share it with sport federation or do what you want». This is an informant. This is very basic information we can use immediately to test the target, an athlete, and to find out if he used a doping substance or not.

Sometimes you receive information about corruption problems inside sport structures where doped athletes are covered up, and then it starts to really investigate, get in contact with the person, and it's a long-term process. You don't become a whistle-blower immediately because you provide some information. In law enforcement, it took me some years to establish a good contact with whistle-blowers, and in some of our cases we know the person for more than two years. So, it is a slow process.

Whistle-blower, in fact, is a specific status. An informant will be granted with, and he will sign an agreement with WADA. A whistle-blower has some rights, a protection measure. Of course we cannot physically protect a whistle-blower, but we have a good connection with INTERPOL and we have connections with governments and we can

support or make a request to different countries to protect the person. This is exactly what we have done in the last issue where this Russian whistle-blower leaves Russia. We get in contact with a government, it is easy for us he would like to be compliant again, so we say, «There is a problem here, can you help?» They say, «Yes, it is possible».

Of course a whistle-blower has also some responsibilities, which is to tell the truth. If we realise that he lied to us to protect somebody else we breach the contract and we start a process against him, and if he goes in front of a journalist or in front of media we stop the contract and we cannot protect him anymore.

Speaking honestly, if you want good information, you pay for it. So, we could pay a whistle-blower if the information provided helped us to dismantle a doping network, clearly.

To manage whistle-blowers, we bought a specific case management software. It is a Danish system (Got Ethics). It is already used in Denmark and in Norway. It's used by different large Scandinavian companies, and it is really efficient. This company provides us with a secure platform to exchange with informants, so you can do it via your laptop or you can do it directly with a Smartphone application Apple and Samsung, not for Windows; it doesn't work yet. We have a dedicated encrypted server based in North America, one with all the data and a second one in a different place as a backup if the first one is attacked by our Russian friends.

Each whistle-blower is registered with a code number, so when I receive a report from a whistle-blower I don't know the name, I don't know the position, it is just a number.

I can say that we are a victim of our success because we have a lot of people who come to us, so it has taken time to register them and then to assess information to decide if they are an informant or if they are on the way to become a whistle-blower. But it is a very efficient tool.

On a daily task within our investigation policy our job is to assess allegations gathered from different sources and to decide on the possible follow-up. Sometimes when I start in the morning, it is quite funny, because we receive some allegations, it's completely crazy, like our WADA Director General used cocaine and he's used prohibited

substances and he should be target tested, and sometimes we have real information targeting athletes and sport.

So, we have main cases and projects. We have currently one long-term project, one year and a half, with one international federation, and we use our target testing capabilities to follow and to support this case. We provide anti-doping organisations support if requested, mainly for substantial assistance. When you are not used to doing an interview with the cheaters, it is always better to ask someone with experience. Several times we come into contact with an anti-doping organisation and we are supporting them to lead the interview.

We have a follow-up. We have a network of anti-doping investigators dispatched between different NADOs and different sport federations.

So, every year we meet and we discuss a big case, we exchange operational information, and we decide on which way we move forward.

Of course we liaise with INTERPOL on specific projects: Energia, trafficking of doping substance; Barium, it's a chemical precursor produced in China and sent abroad, more particularly in northern America to produce performance-enhancing drugs.

We liaise with INTERPOL to coordinate with law enforcement agencies leading anti-doping cases. For example, a few weeks ago I was with my director in INTERPOL to liaise with Austrian law enforcement following the seizure of performance-enhancing drugs in the Kazakh biathlon team. Interesting meeting.

Of course we also have a connection with INTERPOL because our job is to investigate anti-doping rule violations, not criminal activities. But during, I will say, a lot of our investigation we find corruption, bribery, extortion, threats on athletes and coaches. When we identify a criminal offence we prepare an intelligence report and we forward the intelligence report to INTERPOL, who then forward to the relevant country asking them to start a criminal investigation.

I think one good example is Operation, it's a good name, AUGÉAS, where INTERPOL coordinates an international investigation related to all the difficulties with I will say corruption, cover-up, bribery which happened within the international athletic federation. It was disclosed by our investigation.

In fact at that time, during Operation AUGÉAS, INTERPOL facilitated the link between WADA and the WADA Independent Commission and the French lawyers and French police: It was a French national anti-corruption prosecution service, and the French Central Directorate of Judicial Police to exchange operational data. We provide them a full report and, as Madam Houlette, cheffe du parquet national financier, would say, it's ready to send people to jail with this kind of report.

At the request of the French authorities, INTERPOL issued a «Red Notice» for Papa Masata Diack, the son of the former IAAF president Lamine Diack. The investigation is still ongoing because there are some problems regarding the awarding of several IAAF World Championships, and the French authorities and WADA investigations departments are working with the US Department of Justice to provide them with all elements we collected during the investigation.

It was quite interesting at the beginning, because when we started we knew Lamine Diack and his connections with different countries. One of our problems was to choose the best investigator and the best country to investigate the case. Monaco will be the first choice. My colleague from INTERPOL called them.

At the beginning they were happy, but then they realised, probably, the political consequences and they say, «No, it is too complex case with too many internal connections, in France, Senegal, Hong Kong, Singapore. Probably we will not do that. Then we go in contact with French authorities and they say, «That's quite interesting, some IAAF staff are French citizens and in this regard we are competent to lead an investigation, and they start».

As a result, when we start the investigation we really say we need to have some of them in front of an INTERPOL Red Notice to show that you cannot play this kind of game a long time with athlete and coach; at one stage you need to pay the price. So, we hope this one will be the first of a long list of people who have abused athletes and coaches to make money who will be part of the INTERPOL Red Notice Hall of Fame.

To come back to the point, testing or investigation, is it a complete shift or a complementary approach? From my point of view it is not a complete shift from testing to investigation. They are not mutually exclusive.

I think that intelligence-led testing is a key to better target cheaters and athletes, and we focus more on quality than quantity. We know by experience that USADA was number one regarding the number of tests, but as all results were reported as negative, in fact quantity is not always relevant.

Testing also helps us to guide our investigation and to confirm or contract some hypothesis. We have a constant exchange with our athlete biological passport team and with WADA-accredited laboratories. Again I would like to thank Professor Cowan, as well as other directors of laboratories, for their support during investigations. I'm not a scientist; when it starts to be a little technical I'm lost, but they always provide us a clear overview of the situation and this really helps us to do our job.

To conclude. For me, I lived no more than two-and-a-half years in Switzerland, so I learned to make compromise. A transverse approach to gather information from testing, ABP, whistle-blowers and laboratories is a good path for success.

I hope I was not too quick, and thank you for your attention.

MR BERNASCONI: Thank you very much, Mathieu, for this very good overview.

Any questions from the floor? Yes, first row, please, David Cowan.

PROFESSOR DAVID COWAN: Thank you for that presentation.

My question really is one of confidence building; that it takes time, doesn't it, with intelligence, to have people to trust you, to share with you information. With respect to the whistle-blower system for the athletes out there, knowing that the WADA system has been hacked, isn't this not a big concern, and how is WADA attempting to address it? I'm talking now about the whistle-blower database.

MR HOLZ: Exactly. Honestly, it was one of our main concerns. Technically we haven't been hacked, it's IOC ADAMS manager who have been hacked. It's a classical fishing system. But I know they will find a way to go inside some of our servers for email. ADAMS itself was not hacked. But taking this into consideration we discussed with the Danish company and we say, «You will face attack. Your system will be under pressure from some hackers. So, we need to have a kind of safety room where people can upload

pictures, information, with virus, where we can screen attached files to see if there is any virus and to destroy them».

It's the same to protect anonymous witnesses.

We have a legal discussion if we have our server in Switzerland and Europe or if we have the server in North America. Currently the European law is not very clear, but our lawyers in London say in the upcoming years European Commission will refuse anonymous statements. In fact to say to someone, «Please come, disclose your identity, take some risk for a clean sport», that is a difficult marketing to sell. So, we decided to put our server in North America, two servers, and with a backup to say to people, «Your information will be secure because in North America, anonymous statements, anonymous whistle-blowers, it is allowed», so we can do that.

Of course we take specific attention to all kind of threats, virus, and hackers can use to go inside the system. I cannot promise it will be 100% safe because I know by experience. I get the chance to work a little bit with French Secret Service if they want to do something, they do it, just a question of time. So, hopefully we put a lot of barriers and difficulties and it is a constant updating of systems to be aware about the last virus and possibility to go inside.

MR BERNASCONI: Thank you very much.

A second question or any other questions from the floor? First Brianna Quinn.

BRIANNA QUINN: I just wanted to ask, and I'm sorry if I missed it, but I know that you said you're consulting with laboratories and everyone, but to what extent do you share information with the federations and with NADOs? Because once a case gets to the results management stage, it could be useful to have information that you've already collected that might not have been shared.

MR HOLZ: When we exchange with laboratories, it is really in the framework of our investigation. As I say, I'm not a scientist.

I have a background as a lawyer, I learned criminal law in university in Paris, but when it comes to blood values, some blood testing protocol, I'm not an expert, I need someone

from the laboratory to explain to me why the result, for example, is negative, because it gives me an idea what kind of *modus operandi* has been used by the cheaters.

So, we don't want to interfere in the relationship between the laboratory and their clients, it is not our role. Exchange with laboratory is only for investigation or if they find, for example, new substances during our investigations. But with our anti-doping investigator networks, which includes sport federations, and we have one representative here from the Cycling Anti-Doping Foundation, when we detect new *modus operandi* we exchange this information with national anti-doping agencies and some sport federations.

BRIANNA QUINN: Just as a follow-up question then, do you exchange information on particular people that you might have been told about?

MR HOLZ: My colleague investigators in NADO and sport federations are coming from law enforcement or have law enforcement background. So, sorry to say that it's a police table and we directly exchange information. If we want to prepare a case, we can prepare and sign a Memorandum of Understanding on the specific case where WADA can officially exchange operational data with one NADO or one federation for the purpose of their case.

BRIANNA QUINN: Thank you.

MR BERNASCONI: Thank you. The last question. Yes.

SEAN COTTRELL: Thank you for the excellent presentation. I'm Sean Cottrell from LawInSport. I was wondering if you could go into some detail, if you do at all, about what you do to up-skill some of the NADOs. Because someone like yourself has got an incredible amount of expertise, as you just demonstrated in your presentation, in the work that you are doing. But as we know with testing ability and with the administration of anti-doping programmes internationally, not all NADOs are equal. So, what are you doing to help up-skill some of the, let's say less funded or less able NADOs, and what problems does that represent? Thank you.

MR HOLZ: To be clear, only a few national anti-doping agencies get the capacity to do police-style investigation, because it is a lot of investment, and resources to hire the

former police officers and to have a structure behind him, because he needs a data analyst, he needs a database. So, we know clearly that many NADOs, many anti-doping organisations don't get the funding for that.

So, we have a different approach. First of all we have an education department. We can help them to properly implement their testing system, their educational approach. We have, as well, a kind of e-learning system; very basic advice, when you receive information how to assess information, how to use this information to implement a better testing plan, and how to refer this information with other anti-doping organisations, and so on. But when it moves to very complex investigations and the NADOs don't have the capacities, the best is when they raise their hand and say, we are lost, can you help us, and we come with a team and we discuss with the case and we find a common strategy and we go home.

Really we have a very basic approach with e-learning educational tools for various basic approaches, but when they face a complex case they can request our support and we come to them.

We know that some sport federations get the capacity to lead their own investigation, but it is always a problem of staff, so they prepare their own strategy and one day when it comes to do interview with athletes, coach, medical support staff, they request WADA and this network, so you have different investigators from all around the world coming to support this kind of operation.

We already have done that because, as I say, some months ago I was more or less alone to do that, and with the support of investigators from sport organisations and from NADO we can do some operation and we get a good success.

MR BERNASCONI: Thank you very much, Mathieu.

5. Addressing systematic failures within an anti-doping regime designed for individuals: Professor Ulrich Haas⁶¹

MR BERNASCONI: The next speaker is also one of the four authors of the future WADA Commentary that we look forward to have in our hands, Professor Ulrich Haas. He is professor at the University of Zürich, CAS arbitrator, an excellent friend, and always an excellent speaker. It is not by chance that he is the last of the afternoon, because even if he is the last, it is always nice to listen to him.

Ulrich, welcome.

PROFESSOR HAAS: Thank you very much for the introduction. Thank you very much for the invitation; it is a great honour for me to be here and to speak to this audience.

The subject of my speech is corporate criminal liability or, rather, corporate disciplinary liability. This is, of course, not something I have invented but a long-standing concept; it became a controversially discussed issue at the Rio Olympics in connection with the so-called Russian doping scandal. The question is whether and under what conditions legal entities can be sanctioned for wrongdoings or breaches of their obligations. The question is a complex and difficult one to solve.

For the sake of illustration, I would like to refer to a quote allegedly made by Denis Oswald with respect to the Russian doping scandal. As you may know the International Olympic Committee decided in the wake of the scandal not to suspend the Russian Olympic Committee from the Rio Olympics. In response to press criticism of the IOC's approach Denis Oswald supposedly said that any suspension of the Russian Olympic Committee would inevitably hurt (also) its affiliated athletes irrespective of whether or not they are implicated in the scandal, and that such collateral damage was unacceptable from a legal point of view, since:

You cannot undo injustice by committing another injustice.

Whether or not this quote is fake news is not relevant for our purposes. However, I do think that the alleged quote pretty well captures the legal dilemma that goes along with

the concept of corporate disciplinary liability. The core question is whether sport organisations can be justifiably sanctioned even if the consequences will also be borne by «innocent» affiliated athletes.

Sticking with the above quote let me have a look first at the initial injustice that has been committed in the context of the Russian doping scandal. Most of you will be aware that anti-doping is a complex issue involving a host of different tasks, all of which are intrinsically related to each other to make the fight successful. The weakest link in the chain, thus, determines the strength of the anti-doping chain as a whole. What happened in Russia – apparently – was that within this anti-doping chain the laboratory was hijacked and turned into a command centre devoted to undermining the battle against doping in Russia.

It follows from the so-called McLaren reports that the Russian laboratory, instead of serving as an instrument to uncover doping practices, engaged in the exact opposite, i.e. in covering up doping. In addition, the laboratory's expertise was (mis)used to advise athletes on effective doping strategies. The various reports refer to a cocktail of prohibited substances (the «Duchess Cocktail»), which was designed by the laboratory specifically to avoid detection through doping controls. Furthermore, the reports tell that the laboratory engaged in washout tests. Before sending athletes to competitions abroad, samples were taken from them and analysed in order to see whether the doping practices applied could be traced. Only if the analysis result was negative were the athletes dispatched to the competition. Thus, instead of trying to catch dopers, the laboratory screened them to make sure that they would not be caught doping at international events. Finally, the laboratory also engaged in manipulating the athletes' blood and steroid profiles so as to avoid detection through atypical passport findings.

All of the above was done in a very sophisticated and professional manner. This is particularly true if you look at the efforts to cover up doping offenses. Most of you will know that this cover-up system consisted in what has been described as the so-called «disappearing positive methodology». Under this scheme an initial screen was performed on an athlete's sample in the laboratory. Any suspect results were reported to the Ministry of Sport, which decided on how to proceed, i.e. whether to continue the normal analytical and reporting process or to make the positive finding disappear. The Ministry of Sport's decision consisted in signalling either «safe» or «quarantine» back to

⁶¹ Professor, University of Zurich; CAS Arbitrator; Author, WADC Commentary project.

the laboratory. In case of a «safe» report the laboratory would amend the results and upload falsified reports into the data bank ADAMS. Without doubt a complex plot like this requires an enormous amount of criminal energy.

This is equally true for the other cover-up method that has been employed by the laboratory, i.e. the swapping of samples. This method required first and foremost that a clean sample was taken from the athlete without leaving a trace. Thus, the normal doping control kit could not be used because doing so would inevitably have raised questions. The sample then had to be analysed – again without leaving a trace – in order to make sure that it was truly clean. In a next step that clean sample had to be stored and finally it had to be retrieved and swapped with the «dirty» sample. This is a very difficult undertaking, because the dirty sample is collected in coded containers that are designed to be tamper-proof. Whoever has seen those collection kits will agree with me that it appears virtually impossible to open a sealed container without breaking it or leaving obvious marks. Nevertheless, the Russian secret service – according to the McLaren reports – found a way to do so. Again, the sample swapping takes a lot of effort as well as logistical and scientific expertise. This is all the more true if you look at the scale of the Russian operations. Allegedly, the described manipulations were undertaken systematically over a long period of time, and included more than 1,000 athletes.

The exact impact on the level playing field by such a state-sponsored and centrally directed doping scheme is difficult to measure. However, one does not need to be a clairvoyant to understand that for a sporting competition it makes a difference whether or not the participating athletes are embedded in a functioning anti-doping system. Thus, Russian athletes whose training and preparation took place in Russia, where all or most of the anti-doping efforts were obstructed, did not compete on an equal level with those athletes who were under a foreign, and functioning, anti-doping «umbrella». The most important tool in the fight against doping is deterrence. This is why a large part of the World Anti-Doping Code is devoted to uncovering and sanctioning anti-doping rule violations. Studies have shown that without a realistic risk of being detected and sanctioned for doping use, a culture of doping will inevitably establish itself, spread and prevail within the relevant sporting community. That systematic and endemic doping seriously impacts performance levels is also evidenced when we look at the practices employed by the former GDR. The GDR had a centralized strategy of systemic doping

in which very similar tools were implemented and used as those that have been revealed in Russia. We know all of this because the GDR kept meticulous notes of everything they did in the field of doping. These operations were hugely effective. If one looks – e.g. – at the medals table of the last Olympic Games in which the GDR participated, i.e. the 1988 Summer Olympics in Seoul, the GDR was ranked second (behind Russia). It is rather striking that a country with a population of barely over 11 million people obtained more medals at that event than the US with close to 250 million people at the time. This extraordinary success can only be explained – though maybe not exclusively, but surely to a very significant degree – with the centralized and methodical doping system that reigned in the GDR. Consequently, it can legitimately be assumed that also the systemic doping practices in Russia had a significant impact on the level playing field in international sports.

Coming back to Denis Oswald's quote, it is absolutely fair to describe what happened in Russia as an «injustice» meted out, in particular, to the clean athletes against which Russian athletes competed. What, then, is the appropriate and just reaction? Of course, everybody agrees that all athletes who have been identified, and proven, as to have participated in this doping system must be sanctioned. But on a wider canvas we should ask, are there any other options available, beyond sanctioning individual wrongdoings? For instance, can the Russian sports organisations, in particular the Russian Olympic Committee, be held accountable for the «injustice» committed?

Surprisingly, we find little in this regard in the applicable anti-doping rules, i.e. the World Anti-Doping Code. Nevertheless, the Code does not altogether deny the possibility that also sports organisations may commit anti-doping rule violations. There are basically two provisions that envisage corporate disciplinary liability, i.e. Article 2.9 (dealing with the prohibition of assisting, encouraging, aiding and abetting doping) and Article 2.10 (dealing with prohibited association with certain subjects). The addressees of both these provisions are, apart from the athletes, so-called «Persons». Pursuant to the Appendix of definitions this term covers both natural and legal persons. Hence, also sports organization can – in principle – commit an anti-doping rule violation according to the World Anti-Doping Code.

Both provisions, however, are useless when it comes to assessing the responsibility of legal entities, because they fail to clarify the main question: When and under what

prerequisites can a certain unlawful behaviour be attributed to a legal entity? Does the violation – e.g. – have to be committed by a member of the board, or can it have been committed at any level within that organization? To put it differently, is the sports organisation liable for administration within the meaning of Article 2.10 if one of its employees, for instance a concierge, has encouraged and helped an athlete to violate an anti-doping rule? It is completely unclear what system of corporate responsibility applies in the context of the World Anti-Doping Code.

Not only the WADC's provisions on anti-doping rule violations show serious deficiencies. The provisions on consequences are likewise completely inadequate for the purpose of sanctioning sports organisations. In essence, the entire sanctioning system is designed for individuals and tries to strike a balance between the principles of deterrence and of proportionality. In weighting these two principles the World Anti-Doping Code has settled on an appropriate (standard) sanction of two or four years for an athlete's first anti-doping rule violation, depending on whether the violation was committed intentionally or not. It is rather obvious that such a set of fixed sanctions is inadequate for dealing with infractions committed by a legal entity, where the consequences have to be shouldered also by a multitude of affiliated athletes.

Apart from sanctions for anti-doping rule violations the World Anti-Doping Code also provides for certain «Consequences» that will follow in the event of any non-compliance on the part of the so-called «Signatories». This term includes all legal persons, i.e., *inter alia*, the international federations, the national anti-doping organisations and the national Olympic committees. Accordingly, also the Russian Olympic committee was, and is, an addressee of the World Anti-Doping Code rules on compliance. Unfortunately, though, these rules on compliance have not proven to be a potent disincentive. For the signatories, compliance in accordance with the World Anti-Doping Code requires, first and foremost, that they must accept the Code, implement it into their own rules and regulations according to Article 23.2.2, and «devote sufficient resources» to the anti-doping program within the meaning of Article 23.3. Whether the Russian Olympic Committee violated these compliance obligations is not as self-evident as one might think. As a signatory of the World Anti-Doping Code, it has – at least on paper – implemented the relevant rules. In this instance, therefore, the consequences attached to non-compliance with the World Anti-Doping Code seem to be quite inadequate: As per

Article 23.6 of the World Anti-Doping Code they consist in the ineligibility to bid for or hold certain events, the forfeiture of offices and positions within WADA, or «symbolic consequences and other consequences pursuant to the Olympic Charter».

Taking a look beyond the World Anti-Doping Code we find provisions that deal much more harshly with legal entities breaching their obligations. Article 59 of the Olympic Charter, for example, essentially provides that a national Olympic committee that is found to be in breach of its obligation, can be sanctioned by the IOC. Unfortunately, though, this raises exactly the same problem as already described, i.e., what determines whether a sport organization has breached its obligation or, to put it another way, what constitutes a corporate offense? Irrespective of these unsolved issues Article 59 has been applied in the past to national Olympic committees, for instance, when the IOC sanctioned the Kuwaiti National Olympic Committee for certain wrongdoings and suspended its recognition.

Before addressing the legality of such corporate disciplinary liability let me ask whether imposing consequences like these on a legal entity even makes sense. In most instances where corporate liability becomes an issue the dispute will have its origin in an individual wrongdoing by some employee, officer or director of the legal entity. What we have to ask ourselves is whether it is adequate and sufficient in these instances to call to account the individual alone, and what is the added value of sanctioning – over and above – the legal entity within which the individual operates? It may be helpful in this context to have a look at some of the developments in criminal law, where there is an interesting and ongoing discussion among experts on the advantages and disadvantages of criminal corporate offences. Insights from this debate may be fruitful also in the present context. The proponents of criminal corporate liability mainly stress the deterrent effects. Corporate criminal sanctions entail considerable monetary and reputational damage for the entity, because it can no longer hide behind its officers and employees. In addition, it forces the legal entity to take positive action and introduce internal systems of compliance in order to prevent further breaches by its staff and directors. Given that deterrence is the most important and effective tool in the fight against doping, corporate criminal liability can well be seen as a useful (additional) element to ensure compliance with the World Anti-Doping Code.

Another aspect in favour of this concept is the idea of retributive justice. Of course not only the individual engaged in doping profits from an anti-doping rule violation. Benefits accrue also to the legal entity to which the individual belongs and which has enabled or encouraged him or her to breach the rules. Thus, it is paramount that the entity also shares in the responsibility.

Finally, allow me to make a statement based on personal experience. I was recently appointed to a CAS case involving a number of doped Russian athletes. All of them competed in the same sport discipline and were, in principle, caught with the same prohibited substance. Thus, it took little expertise to understand that there was some kind of scheme in this case, i.e. that someone behind the scene was pulling the strings. Everything indicated that there was a systemic problem of doping. Strikingly, the Russian Sport Federation concerned did not want for the individual athletes to appear before the CAS even though considerable sanctions were at stake for them. The federation quite obviously had no interest to shed light on the conspiracy that must have taken place. Instead, it was satisfied to only look at the individual level of the wrongdoings by preventing the panel from putting questions to the athletes at the hearing. This clearly worked as much to the athletes' detriment as it was to the benefit of the federation. Thus, it appears that there was not only a systemic approach of administering doping substances but likewise a systematic approach for dealing with related cases before the relevant courts. Of course such conduct opens the door for speculation. The conclusion imposes itself that a federation resorting to such stratagems and letting its athletes face the fire all alone will much rather just replace the caught dopers with other athletes than change its policy. As long as there is a sufficient reservoir of dependent and malleable athletes who are eager to get to the top there is no incentive to abandon these improper schemes. The situation would be completely different, of course, if the sanction for systematic doping were directed also against the federation. Only then would the federation really have something to lose.

The next issue, after having concluded that corporate criminal liability has a (useful) place in the fight against doping, is proportionality, in particular the question of whether an athlete can justly be held accountable for systemic failures originating at the corporate level. For an answer let me quote from three recent decisions that are of relevance.

My first excerpt is from last year's IOC Executive Board decision⁶² and reads as follows:

On the basis of the Findings of the IP Report, all Russian athletes seeking entry to the Olympic Games Rio 2016 are considered to be affected by a system subverting and manipulating the anti-doping system. ...

Under these exceptional circumstances, Russian athletes in any of the 28 Olympic summer sports have to assume the consequences of what amounts to a collective responsibility in order to protect the credibility of the Olympic competitions, and the «presumption of innocence» cannot be applied to them. On the other hand, according to the rules of natural justice, individual justice, to which every human being is entitled, has to be applied. This means that each affected athlete must be given the opportunity to rebut the applicability of collective responsibility in his or her individual case.

The second example concerns the *Russian Paralympic Committee v. International Paralympic Committee* decision⁶³. In it, the panel found that, even if the legal entity (*in casu* the Russian Paralympic Committee) can be held accountable for systemic failures, the suspension of its membership in the international committee does not automatically entail that all affiliated athletes are excluded from international events. The relevant passage of this decision read as follows:

The RPC does not challenge the IPC's right, as an international federation, to suspend a member federation or to place conditions on membership. The RPC's case is, in essence, that the IPC decision to suspend it from membership, with the consequence that no Russian Paralympic athlete is eligible to compete in the Paralympic Games in Rio, was unwarranted and disproportionate for a number of reasons, ...

The RPC emphasises the lack of proportionality in the effect on innocent third parties who have already had to overcome significant obstacles in their lives. ...

⁶² EDITORS' NOTE: The reference is to the following decision, issued just before the Rio Olympics: IOC Executive Board Decision of 24 July 2016, <https://www.olympic.org/news/decision-of-the-ioc-executive-board-concerning-the-participation-of-russian-athletes-in-the-olympic-games-rio-2016>.

⁶³ CAS 2016/A/4745, *Russian Paralympic Committee v. IPC*, award of 30 August 2016, paras 75, 77 and 79.

Importantly, the Panel notes that these proceedings are based on a specific Arbitration Agreement. The parties to the arbitration are the RPC and the IPC exclusively. The Russian para-athletes are not parties to this appeal. Questions of athletes' rights that may not derive from the RPC, but of which they themselves are the original holder, such as rights of natural justice, or personality rights, or the right to have the same opportunities to compete as those afforded to Russian Olympic athletes by the IOC in its decision of 24 July 2016 regarding the Olympic Games Rio 2016, are not for this Panel to consider. The Panel makes no comment on whether such rights exist, or the nature and extent of any such rights. The matter for review by this Panel is thus not the legitimacy of a «collective sanction» of athletes, but whether or not the IPC was entitled to suspend one of its (direct) members. The fact that the suspension of the RPC reflexively affects the Russian para-athletes insofar as they derive a legal position from the RPC is a logical and natural consequence of the simple fact that the IPC Constitution allows for legal persons (representing the sport in a specific geographical area) to obtain membership. This by itself cannot change the accountability of such a (collective) member to comply with the obligations imposed by the IPC Constitution. In particular, the collective member cannot hide behind those individuals that it represents.

Finally, in the *Russian Olympic Committee et al. v. IAAF* decision⁶⁴, the CAS panel approved the new IAAF Rule 22, which had been enacted in the wake of the Russian doping scandal. The rule was worded as follows:

1. The following persons shall be ineligible for competitions ... :

(a) whose National Federation is currently suspended by the IAAF. ...;

1A. Notwithstanding Rule 22.1(a), upon application, the Council (or its delegate(s)) may exceptionally grant eligibility for some or all International Competitions... , if (and only if) the athlete is able to demonstrate to the comfortable satisfaction of the Council that:

(a) the suspension of the National Federation was not due in any way to its failure to protect and promote clean athletes, fair play, and the integrity and authenticity of the sport; or

⁶⁴ CAS 2016/O/4684, *Russian Olympic Committee et al. v. IAAF*, award of 10 October 2016.

(b) [in case (a) does not apply] ... , (i) that failure does not affect or taint the athlete in any way, because he was subject to other, fully adequate, systems outside of the country of the National Federation for a sufficiently long period to provide substantial objective assurance of integrity; and (ii) in particular the athlete has for such period been subject to fully compliant drug-testing in- and out-of-competition equivalent in quality to the testing to which his competitors in the International Competition(s) in question are subject; or

(c) that the athlete has made a truly exceptional contribution to the protection and promotion of clean athletes, fair play, and the integrity and authenticity of the sport.

The common denominator of all the above decisions is that the athlete can be held accountable – under certain conditions – for failures at the corporate level. The surprising finding is, however, that according to the IOC, the Russian Olympic Committee cannot be sanctioned despite its gross and obvious misdemeanour at the corporate level. This conclusion is based on the – in my humble view erroneous – assumption that any corporate responsibility allocated to a legal entity automatically leads to the exclusion of all affiliated athletes. This, however, is clearly not the case as is shown when looking at the IAAF and the IPC cases. There is and there should be room for differentiation, because what may seem proportionate on a corporate level need not necessarily be proportionate in all circumstances on an individual level.

Now – what would be the cornerstones of such a corporate criminal liability system in doping?

- It should only kick in in case of systemic failures. Only in the face of systemic failures is there an added value in pursuing the legal entity along with the individual. Admittedly, to adequately define the term «systemic failure» poses some challenges. However, a range of different approaches come into regard, notably qualitative or quantitative approaches.
- The sanctioning regime applicable to the legal entity should – just like the one for individuals – differentiate between consequences aimed at restoring the level playing field (disqualification) and rules purely aimed at deterrence (ineligibility, suspension).

- If a sports organisation has failed to enforce a functioning anti-doping system this constitutes a distortion of the level playing field. Athletes affiliated to this sports organisation lack a fundamental starting condition when competing against other athletes. Therefore, the suspension of such legal entities necessarily affects the affiliated athletes. No issue of fault arises here (just like with cases of disqualification). However, any disqualification of the entity and its affiliated athletes should only last until the level playing field is restored. In order to accomplish this as fast as possible, the responsible authority should be allowed to appoint a trustee to the federation whose task consists in bringing the federation's anti-doping policy in line with the legal requirements.
- Irrespective of and in addition to disqualification measures, it is imperative to have a set of possible sanctions that can be imposed against the legal entity (once the level playing field has been restored). Such sanctions, whose purpose is to uphold deterrence, should only reflect the offences committed by the relevant federation's officers and directors, but not impact the eligibility of the affiliated athletes. It is a basic concept of the World Anti-Doping Code that periods of ineligibility (unlike disqualifications) can only be imposed on someone who is at fault. In other words, there is no collective responsibility when it comes to periods of ineligibility.

Thank you very much for your attention.

MR BERNASCONI: Thank you very much, Ulrich. Impressive.

Any questions from the floor? I don't know whether the questions can be totally related to the topic or going a little bit to the side.

DR PAUL DIMEO: Hello there, I'm Paul Dimeo from Sterling University.

I have two quick questions, really. One is, you mentioned GDR as a sort of previous example as to why WADA might have tried to take these sorts of situations into account, but what about the Festina case? Because people often say Festina was a catalyst to the development of WADA, but yet the collective cycling culture was ignored for a while. That's my first question:

Essentially why was it not developed?

Secondly, does the noncompliance process actually impact upon this as well? So, could a country or international federation become noncompliant, and how does that relate to what you're saying?

PROFESSOR HAAS: Let me start with the second question, non-compliance.

Actually, quite interestingly, we have in the World Anti-Doping Code a section that deals with so-called additional responsibilities of signatories. Unfortunately, no real consequences are provided in the World Anti-Doping Code in case of non-compliance with these provisions. However, any obligation is only worth so much as there are means to enforce it. The specific provisions on compliance are – as previously mentioned – completely inadequate. This is especially true if you look at the consequences in Article 23 of the World Anti-Doping Code. The main consequence is that you cannot host certain (international) competitions. From my point of view, however, this is not a sufficiently harsh sanction to make it a powerful deterrent. Only a sanction that targets the sports organisation itself (under the prerequisite stated above) can possibly work as an effective disincentive. This is why I advocate rethinking the rules on non-compliance in the World Anti-Doping Code completely.

In relation to your second question I have to admit that I was startled by the similarities between the Russian doping system and the one established in the GDR. In both systems the laboratory played the central role and was misused to cover up doping practices and to develop new doping strategies. Also the practice of effectuating wash-out tests on athletes before sending them to competitions abroad was done in the former GDR. So, it appears that history repeats itself.

Why this historical experience was not taken into account when drafting the World Anti-Doping Code is hard to explain. Conceivably it is due to some romantic wishful thinking that such practices were linked to the Cold War and would not repeat themselves after the fall of the Iron Curtain. Unfortunately, this has been proven wrong. However, I also think that this incident – just like the Festina scandal – will act as a catalyst to improve the anti-doping system and bring it to a next level. We have in the past concentrated on the last item of the doping chain, i.e. the athlete. In the latest revision process of the World Anti-Doping Code we have moved up the chain a bit by focusing more on athlete support personnel (in particular coaches). In the next revision

process we will have to work our way further up to the sports organisations to which the athletes and most of the athlete support personnel are affiliated. We have to force them to put an adequate surveillance and compliance system in place to protect the integrity of sporting events. This – in my humble opinion – is only possible through a differentiated system of corporate sanctions.

MR BERNASCONI: Thank you.

Another question. The last question of Brianna Quinn for today.

BRIANNA QUINN: Ulrich, I just wanted to ask, we're talking about sanctions, but who do you see as being responsible for actually conducting the investigation itself? We've seen a wide-scale investigation into Russia but there may be other countries or entities that we could also be looking into.

PROFESSOR HAAS: In today's speech I have concentrated on the sanctioning system that is required. You are absolutely right that any effective sanctioning system will also require investigations. For signatories such investigations must rest with WADA. For national member federations I could envisage investigations led by the international federations. Irrespective of who conducts the investigations it appears vital – in particular to reach a conclusion on whether or not the level playing field is restored – to be able to rely on internal information from within the sports organisation. Given that in many instances the sports organisation has no interest in depicting the true circumstances, the investigation authority must be able to appoint a trustee to the board of the organisation who must be granted access to all relevant information and has reporting duties to the investigation authority. I would recommend a system akin to insolvency proceedings. The way I see it, it would make little sense to rely on information provided by those people within the sports organisation who are accountable for the deficiencies that are under scrutiny.

MR BERNASCONI: Thank you very much, Ulrich. Very interesting.

6. Panel discussion – Is the law killing anti-doping efforts: Mr Michael Beloff QC⁶⁵, Mr Mike Morgan⁶⁶, Ms Brianna Quinn⁶⁷, Mr Jacques Radoux⁶⁸ and Mr Mario Vigna⁶⁹

MR BERNASCONI: Now we will go without any break to the final panel of this afternoon. We do a little bit like at the European song contest, we introduce each of the panellists, each of them gets up and joins us at the round table. The first is the fastest, Mr Michael Beloff QC, longstanding CAS arbitrator.

He arbitrated at five Summer Olympic Games for CAS and is Chair of the IAAF ethics board. So, Michael, thank you very much for being with us.

Then may I ask Mike Morgan from the last row to come forward. Mike Morgan, attorney-at-law in London. He advised several NOCs during three of the four last Olympic games in anti-doping and other matters. Welcome, Mike, as well.

Then Brianna Quinn, you have already heard her voice today in the Questions and Answers Rounds. She is an attorney in Geneva. She is an arbitrator at the Basketball Arbitral Tribunal. She studied law at the University of Canberra.

Then we have Jacques Radoux. I start by indicating the most important thing, he is Davis Cup team captain of Luxembourg, so a fantastic tennis player. Most important, however, he is the Legal Secretary at the European Court of Justice and CAS arbitrator. Jacques, thank you for being with us today.

Then last but not least, Mario Vigna, attorney-at-law in Roma, Deputy Chief Prosecutor of NADO Italia, and representing many, many cases relating to Italian athletes before CAS.

The Panel, as you can see, bears the title: is the law killing anti-doping efforts?

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⁶⁶ Partner, Morgan Sports Law.

⁶⁷ Senior Associate, Lévy Kaufmann-Kohler; Basketball Arbitral Tribunal Arbitrator.

⁶⁸ Legal Secretary, European Court of Justice; CAS Arbitrator.

⁶⁹ Deputy Chief Prosecutor, NADO Italia.

To start with, I just want to say that 16 years ago, maybe 17 years ago, a professional athlete of mine received a letter, and this letter was a two-line letter. The letter was signed by the president of an international federation, and reads more or less as follows:

«Dear Mr So and So, I gathered together with some members of the Executive Board yesterday evening and we discussed your case and we decided that you shall be imposed a six months suspension period. Thank you very much. Kind Regards», and the signature of the president.

It is not a joke, it is a letter that is still in my files. It was sent 17 years ago, and this professional athlete was, indeed, suspended for a certain period of time. CAS did not have jurisdiction on that federation at the time. I had to go to the ordinary state courts of the relevant state, but they proved not to be willing to take the matter very quickly. At the end, the six months passed, but nothing could be done against the decision.

So, when I think about that case, I really think we did a couple of steps in a positive direction. But the question today is, whether or not these steps have now gone so far that we arrived to a place where the law is killing the anti-doping fight.

Michael, the floor is yours for your first thoughts on this.

MR BELOFF: Thank you. It is a pleasure to be here.

The panellists for this session have been told to confine their introductory remarks to three minutes each. This is the time taken, according to his various mistresses, by former President Chirac to make love, shower included.

[LAUGHTER]

So, I shall confine myself to brief observations about whether the World Anti-Doping Code in its application has satisfied the criterion of legal certainty.

Now in its successive versions it is a remarkable piece of work in harmonising the law in a sensitive area to provide, in principle, a global level playing field. When you have added to this the Court of Arbitration for Sport, a world court of sport, a body, again, which in principle should resolve definitively any points of construction of the existing Code. Have these objectives been perfectly achieved? I'm going to give you five examples simply to suggest that the answer is negative.

The first relates to the 2009 Code where, under Article 10.4, you may remember that an athlete could secure a reduction in the ordinary period of ineligibility for the presence of a specified substance of a sample if he or she could establish two things. One, how it entered his or her body and, two, that the ingestion «*was not intended to enhance the Athlete's sport performance*».

But two lines of different authority developed by CAS. The first was the so-called *Oliveira* line, which said that if an athlete did not know how the product he was using contained a prohibited substance, he could not have an intent to take it to enhance his performance⁷⁰. The second so-called *Foggo* line was to exactly the contrary effect; it was that the lack of such knowledge might be relevant but could not be decisive. What was more important was whether he took the product to enhance his performance⁷¹. Both lines of authority were summarised in a decision in *Kutrovsky*⁷², which was in fact a split decision representing the schizophrenia within CAS at that time, and which line was correct was unresolved for the duration of the 2009 Code.

Then, secondly, the WADA Code of 2015 substituted, as you already heard, a new test which was designed to bypass the problem. In summary, the four-year ineligibility for an ADRV would be standard unless the athlete could show a lack of intent to commit the violation.

Unfortunately, this has given rise to an entirely new debate, which Emily referred to in her admirable paper. Is it, the question is posed, a precondition of the athletes showing a lack of intent that he or she can establish the source of the prohibited substance found?

Again, there are two quite distinct lines of authority. One says «yes», the other says «no». The rival arguments are set out in the recent case of *Fiol v. FINA*⁷³, to which Emily referred, which came down on the «no» side. But there are still cases both ways and since CAS does not have a common law doctrine of precedent it is difficult to foresee what the final outcome is going to be.

⁷⁰ CAS 2010/A/2107, *Oliveira v. USADA*, award of 6 December 2010.

⁷¹ CAS A2/2011, *Foggo v. National Rugby League (NRL)*, award of 3 May 2011.

⁷² CAS 2012/A/2804, *Kutrovsky v. International Tennis Federation*, award of 3 October 2012.

⁷³ CAS 2016/A/4534, *Fiol Villanueva v. FINA*, award of 16 March 2017

Thirdly, the issue arises of the evaluation by CAS of the inappropriateness of a period of ineligibility imposed by a first-instance body. The question there is, should CAS, whose proceedings are by rule *de novo*, look at the sanction entirely afresh or should it pay some deference, and if so, how much, to the first instance decision? Again there are two distinct lines of authority, one of which says that one should pay some respect to the concept that the sport's own body would know best what sanction the particular sport requires and the other which says that CAS should pay no attention at all to that initial decision.

Fourth, there is an issue as to the degree to which the delegation by an athlete to a third party of checking on what substances are or are not prohibited can impact on his or her advantage in respect of the period of ineligibility. This issue, of course, being brought into sharp focus by the return of Maria Sharapova to the tennis court as distinct from her appearance in the courts of law. The decision in the Sharapova case appears, to some at least, to have diluted the well-established rule that an athlete is responsible for what he or she ingests and, instead, has substituted a rule that one judges his or her fault by reference to the question as to whether or not the selection or oversight of that third person was properly performed.

Fifth issue, something that I know that Jacques Radoux may develop, the question of proportionality. The debated question there is, are the WADA provisions as to sanctions themselves proportionate or is there still scope for some form of challenge even to a sanction that is formally compatible with those provisions on the basis that in the circumstances of the particular case it may be disproportionate?

So, there are five issues upon which there remains a lively debate. I may refer by way of footnote to that somewhat interesting but imprecise concept of a paramount *lex sportiva* or *lex ludica* as classical purists would prefer to call it. If I may use another political analogy, it is a little bit like President Trump: its impact is entirely unpredictable.

I would conclude in this way. These uncertainties, although of course they supply a great deal of work for both advocates and arbitrators, that is not of course their intended benefit; are, nonetheless, at odds with the objective of having rules that athletes, their advisors and sports administrators can clearly understand and by which they can guide their daily conduct.

As you recollect, in the classic dictum in the *Quigley* case more than two decades ago and I quote: «Regulations that may affect the careers of dedicated athletes must be predictable»⁷⁴, and foreseeability of consequences of a given action is actually a criterion of lawfulness vouched for and insisted upon by the European Court of Human Rights.

In summary, the Codes and CAS have taken great strides towards that destination, but in my view they have not yet reached the finishing line.

Thank you very much.

MR BERNASCONI: Thank you very much, Michael.

Now may I pass the microphone to Mike for his three minutes, ...with shower time included.

MR MORGAN: My three minutes is going to be pretty short because for me the issue is quite simple.

We talk about your example from 17 years ago, what's different between then and now. One of the huge differences is the professionalization of sport. So, now it is not just an issue about someone who can't do his hobby or can't play something at the weekend, we're talking about someone's profession, someone's livelihood.

That's on the one side, you're dealing with the athlete.

On the other you have a Code now that's 152 pages long and the anti-doping community has decided that that's what it needs to do in order to regulate the use of prohibited substances in sport. On the other side, for the athletes, one of the things that underpinned the Code or at least Article 2.1 of the Code is the principle of strict liability. Because you have strict liability, and it is a reasonably unique concept, so you see it in very limited circumstances, for example in criminal law, like drink-driving offences, but otherwise it's really quite a unique concept. And because athletes are subject to strict liability, and now also we have these increased sanctions, we have gone back up to four years again as the starting position, as the default position, I think it is inevitable that

⁷⁴ CAS 94/129, *USA Shooting & Q. v. Union Internationale de Tir (UIT)*, award of 23 May 1995, para. 34.

you're going to have, you know, 100 or 150-paged judgments from the CAS, weeks and months actually, usually months, of proceedings in anti-doping cases.

I don't know if this is the right way to go. The anti-doping community decided that's where it needed to go in order to be more effective. And on the athletes' side, because it is about their livelihoods and their careers, we're at a stage now where people like me are able to make a living off this. Maybe 20 years ago, Michele, you probably wouldn't have made a living from just anti-doping cases. Is it right? I don't know.

Going back to the question here, is the law killing anti-doping, at the end, because it is now their livelihoods, I think it is inevitable that athletes will expend a lot of resources on defending themselves. That's an inevitable consequence of the Code where we are now.

MR BERNASCONI: Thank you very much Mike for your thoughts.

Then we continue strictly following the order in the program. So, now Brianna, the floor is yours.

MS QUINN: Thank you. I guess I already used a minute-and-a-half with my questions today; right?

When I thought about this issue, whether the law is killing anti-doping efforts, the thing that I wanted to raise for discussion was the struggles that we're having with evidence as lawyers.

From the federations' perspective, what we're seeing is you have some cases where you have, as evidence, a traditional A/B sample analysis, but due to some problem with that evidence you can't prove your «*presence*» case. Maybe you have a problem during sample collection, maybe you have a problem during results management itself – like the athlete hasn't been invited to attend the B-sample opening and analysis – or maybe the actual laboratory analysis itself has been problematic. What we have seen with these cases is that the federation needs to be able to find some sort of additional evidence to back up that «*presence*» violation which you haven't been able to establish, and turn it into a «*Use*» violation.

Obviously as a federation you don't want to simply give up a case where you're 90% sure that someone has done something, but at the same time you want to make sure you're relying on reliable evidence. You want to make sure you're not going after an athlete who actually hasn't done something wrong.

For an example of this sort of scenario, and I'm a bit hesitant to speak about this case because Ross Wenzel was involved, and I'm sure he has some strong opinions, Jean-Pierre Morand was also involved, but it's the *Devyatovskiy Award*⁷⁵. This was a CAS decision where, basically, you had a circumstance where the athlete wasn't effectively able, according to the panel, to attend the B sample opening, which meant that WADA was not able to establish a presence case (Article 2.1 of the WADA Code).

So, turning to «*Use*» and turning to whether WADA could establish «*Use*», what the panel said is that they were ready to accept that the results of the urine analysis of the samples could be taken into account for a «*Use*» violation, even if they've been obtained in an irregular manner in the traditional context of a «*presence*» case. But those results, *because* they were obtained in this irregular manner, they're not sufficient in themselves to establish a «*Use*» violation and they have to be regarded with particular care.

The panel went on to consider the arguments WADA used to try to establish the «*Use*» case including: you've got the B1 and the B2 sample; you also have evidence, or you have an indication, that maybe there was wide-scale doping and the athlete could have been involved in that; the athlete had a previous anti-doping rule violation, etc., but what the panel ultimately said is that this sort of evidence was more speculation than substantive proof.

What the panel said is that there may be cases where analytical evidence, which doesn't meet the criteria to support a «*presence*» violation can be an important ingredient in establishing a «*Use*» violation case, but you have to have additional supporting evidence rather than mere speculation.

I think this conference is probably the best venue for all of us to consider what additional evidence that could be, I mean we have scientists here, we have people from federations, from NADOs, we have lawyers. I think what we need to start thinking about

⁷⁵ CAS 2015/A/3977, *WADA v. Devyatovskiy*, award of 31 March 2016.

is what sort of evidence can a federation bring in addition to the A and the B sample when there is some sort of problem in the case.

I know Marjolaine offered up some examples this morning saying we can have a look at metabolites, we can have a look scientifically, we can work on a few things. I also know in a recent case we've actually looked at the blood passport of an athlete to see whether that was consistent with the analysis of the urine samples⁷⁶. You could also use the steroid profile to do it, but I think what is important for us lawyers is to have the input of you scientists because we need to know what extra information you have that could be useful in a case.

I think this also goes for the NADOs, for the federations, for the investigators, and it was the reason for my question before about the extent to which we're getting information that's coming through the whistle-blower programmes, the extent to which we have access to whereabouts data, maybe to rumours, even, that are going around. If you, as a laboratory, have a previous test that has been conducted on this same athlete, and maybe there was a doping substance identified in there but the you couldn't report the AAF because it was under the limit (in other words the exact cases that were being talked about this morning), these are all things that we as lawyers would like to be able to bring in proceedings to help to establish a «Use» case.

So, I think for me, when we are talking about «is the law killing anti-doping efforts?» we need to go further with the question. For example, for these cases where you're sure there is a violation but because of a procedural defect the law *could* kill anti-doping efforts, it is important that we have a discussion about where we can get additional evidence from, and what different evidence we can rely upon, to make sure that the law *doesn't* in fact kill the anti-doping efforts.

MR BERNASCONI: Thank you very much Brianna for your interesting remarks.

Now, Jacques, we look forward to hearing your considerations.

⁷⁶ EDITORS' NOTE: Following the Macolin Summit the decision in this case was rendered and the panel held that such evidence could in fact be used to support a «Use» case: see CAS 2016/A/4828, *Oyarzun Guiniez v. UCI*, award of 31 May 2017.

MR RADOUX: Thank you Michele. A thank you as well to the organisers for inviting me. I hadn't thanked them yet.

I'm supposed to say something about the role of proportionality in the anti-doping fight. When I read the subject for the first time I thought this is not going to be too complex and then, after about one or two minutes, it dawned to me that it is a bit like an iceberg, there is more to it than what you see at first sight.

We all know what the principle of proportionality means; it means that the sanctions should be in adequacy with the severity of the behaviour, violation, anti-doping rule violation, that is supposed to be sanctioned. So, there has to be a fair balance.

The principle applies in several domains of law. It could be constitutional law, criminal law or anti-doping rules.

There are three aspects that came to my mind, some of which we might not really address any further today. The first and most obvious one is the one linked to the severity of the sanctions as such. There are two elements to that aspect. First of all, the abstract catalogue of sanctions. Does this catalogue of sanctions include or respect the principle of proportionality? The European Court of Justice (ECJ), where I work, has said in the *Meca-Medina* case⁷⁷ that the sanctions have to be proportionate. The ECJ said it would be willing to control the proportionality of the sanctions to the severity of the infringement or the violations.

Now the question is: does the 2015 WADA Code respect this principle? Jean-Paul Costa, former President of the European Court of Human Rights, has said yes, the 2015 WADA Code respects the principle of proportionality⁷⁸. The WADA Code itself states, in its opening and in its introduction to the first part, that the sanctions respect the principle of proportionality. But so far neither the Swiss Federal Tribunal nor the European Court

⁷⁷ ECJ C-519/04, *Meca-Medina et Majcen v. Commission*, judgment of 18 July 2006.

⁷⁸ EDITORS' NOTE: Jean-Paul Costa addressed the issue of proportionality in his 2013 legal opinion on draft 2015 World Anti-Doping Code, Costa J-P (2013) Legal opinion regarding the draft 3.0 revision of the World Anti-Doping Code, available at <https://www.wada-ama.org/en/resources/legal/legal-opinion-on-the-draft-2015-world-anti-doping-code>.

of Justice nor the European Court of Human Rights have taken a stand on that point, so it is still an open question.

The second element of this first aspect is the particular sanctions that a federation or a CAS panel will impose in a specific case on an athlete or support personnel. There is a constant case law, that says that even a lifetime ban can be proportionate. Thus, the height of the suspension is not the problem. However, the basic suspension of four years can cause a problem, and lately many panels have been confronted with requests from the athletes or the lawyers saying: well, there should be room for you to take this principle of proportionality into account and go below the eventual four years, for whatever reasons.

The question is whether there is room for a panel to do that or not. Does the 2015 WADA Code still leave that room to the panels or not? I heard this morning the scientists say, yes, it is up to the lawyers, it is up to the judges to decide and take this stand. Yes, but sometimes the lawyers and judges might have their hands bound, and they would be willing to do something which the text does not allow.

The second big aspect is linked to the definition of what is doping: the list of substances or the method that is prohibited and the thresholds set out in these rules. Here again the ECJ has said that this aspect is submitted to a control; this aspect can be submitted to the principle of proportionality, and the ECJ said that it would be willing to do this control. In fact, in the *Meca-Medina* case the judges did this control.

I know the sports world is not very happy with the ECJ's decision. But with regard to this decision, nevertheless, one has to take account of the fact that the ECJ seems to be willing to leave a certain margin to the sport world in assessing these lines and thresholds and that it will only sanction a manifest error of assessment by the sports world.

The last aspect which we might certainly not discuss today is the question whether the whole system of dispute settlement, or let's say arbitration, that the athletes have to submit to is proportionate or not. Knowing that some athletes maintain that there is an infringement of their fundamental rights to access an ordinary court and that the CAS jurisdiction is forced upon them.

That issue is more or less still open. The fact that, last year, the German Bundesgerichtshof has taken a stand in the *Pechstein* case is a positive step towards recognition of the validity of the system in place, meaning these arbitration agreements and CAS jurisdiction⁷⁹.

But as long as neither the European Court of Human Rights nor the ECJ have taken a stand on that issue we're still not sure where we stand. So, there's no legal certainty on that point.

This is all I had to say about the principle of proportionality. We can discuss it further on; there are many things to say about it.

MR BERNASCONI: Thank you very much, Jacques.

Mario, now to you to make your points.

MR VIGNA: Actually, my topic is a question: Why does prohibited association under the Code in force not work?

Actually, when the new Article 2.10 was included in the Code I thought it was a good news for the fight against doping, also considering that we, as the Italian NADO, already had a similar violation in our national anti-doping rules since 2007. In particular, my experience as a prosecutor in the past years shows that doctors, nutritionists, chemists, trainers and sports managers, very often may represent the upstream source of doping.

Actually, after reading the rule and after two years and four months since its entering into force, we cannot help but note that such rules have no practical purpose. The areas of concern about Article 2.10 are also confirmed by the fact that, to the best of my knowledge, there are no cases.

As a matter of fact, if we, as NADOs or ADOs, have to follow the procedure set forth in that Article, we should monitor the activity of all athlete support personnel declared ineligible and, if we learn about an athlete training with them or availing himself or

⁷⁹ German Federal Court of Justice (BGH), KZR 6/15, *Pechstein v. International Skating Union*, judgment of 7 June 2016.

herself of the services of this support personnel, we should write to the athlete in question asking him or her to stop the association and, if he or she does not, then start disciplinary proceedings. Moreover, we should also write to the athlete support personnel in question asking him or her to provide their version about the facts and the consultancy services. This does not make any sense. It is already difficult to know that an athlete is resorting to the assistance of banned people. Who will continue to use the assistance after a warning? I do not think any athletes can do this.

Moreover, we very often discover such illicit assistance when it is already over, especially when we receive evidentiary material from criminal proceedings, that is when the secrecy of the criminal investigation is over. In those cases, according to Article 2.10, the assistants will remain unsanctioned. In a way, the long period associated to the statute of limitation loses its deterrent effect if the collaboration only becomes an adverse anti-doping rule violation once the ADO has notified the athlete.

Moreover, I have to say that it is not easy to discover athletes engaging in prohibited association with athlete support personnel who are serving a period of ineligibility. This is because athletes can contact doctors like Michele Ferrari or Eufemiano Fuentes through, for instance, their web sites. I will not mention the domain names to not advertise them, but it is very easy to find them on Google.

We, as a prosecution office, do not have access to such information, since they use nicknames. Moreover, real coaching or consultancy services from professionals serving a period of ineligibility do not constitute a crime and, therefore, it could be difficult to receive information from public authorities about clients of nutritionists, doctors, chemists and other shamans or miracle workers.

In my opinion, before the entering into force of Article 2.10 we had a rule at national level, as I told you before, that has worked much more effectively in terms of prevention and deterrence. In short, our previous rule provided that recourse or favouring the recourse to the assistance of individuals sanctioned for anti-doping violation was prohibited. The sanction was a period of ineligibility from three months to six months. In case of long-term assistance, the sanction could be increased up to two years. There was not anything specific about how athletes could obtain knowledge of «banned» people. How-

ever, given that all the operative parts of decisions regarding violations of the anti-doping rules were and are published on the official web site of our NADO, it was easy for athletes to check that the assistance of an Italian doctor, a chemist or a coach was not allowed, at least for Italian professionals, of course.

We had also a couple of cases before CAS where this rule resisted and where it passed the principle that athletes ought to know. I do not think that putting the onus on the athletes to verify on the WADA blacklist whether the athlete's personnel was under suspension is not feasible.

Athletes must respect a list of prohibited substances and methods and they can also check a list before appointing their professional consultants. In other words, in my opinion they should check a product before taking it, similarly they should check athlete support personnel before engaging them.

I do not think that this responsibility should be linked to the level of the athletes in question. For example, in Italy it is applied to all the athletes subject to our national anti-doping rules. Moreover, we can consider that athletes included in the registered testing pools, have to submit whereabouts by using ADAMS, and I do not think that checking a blacklist before engaging a professional is demanding too much.

Perhaps this is a late disclaimer in my speech. I could be too influenced by my role as a prosecutor and we should think about the purpose of this infraction. I think that almost certainly WADA considers it as more of a tool to prevent athletes from engaging with bad influences rather than a way to sanction cheaters. The goal could be preventing as many people as possible from engaging at fault with such sanctioned athlete support personnel.

In a way, its success could be measured based on the number of warning letters sent to athletes rather than on the number of anti-doping violations recorded. Unfortunately, I have to say that in almost all cases of association we had thus far the consultancy relationship was aiming to provide doping assistance.

Just to provide you with some examples, when we get evidence of such kind of consultancy the relationship is characterized by underground conducts where the athlete is

already aware of the identity and status of the consultant. Therefore, he or she tries to use his/her services almost covertly.

Indeed, it is very hard to believe that people like, I have to mention them again because they are unfortunately famous, Michele Ferrari or Eufemiano Fuentes can be consulted by sportsmen or sportswomen because of ignorance or for mistake about their status. If so, we should have a lot of assistance in white light in the past. Conversely, we received from public prosecutors evidence such records of phone calls, emails, SMS, shadowing reports showing that consultancy is voluntarily concealed.

As I told you before, when we receive the search and the items of evidence is often long after the consultancy in question, so there is nobody to warn and nothing to prevent. Actually, in lots of cases our previous version of the rule, now unfortunately superseded, allowed us to sanction athletes where there was only indicative evidence of Article 2.2 (use) or 2.8 (administration).

It is worth noting that very often athletes and athlete support personnel use coded language. We have to consider that these people meet each other in isolated locations and talk over the phone in coded language. To say «supply of 2,000 units of EPO», they say «two white t-shirts». To say «one bag of blood or plasma», they say «one bottle of red wine». This means that behind 2.10 (prohibited association) there could be 2.2 (use), but very often it is hard to prove it according to the comfortable satisfaction standard and without a smoking gun. It is very hard to have a smoking gun when people are so well organized.

Additionally, especially regarding doctors serving ineligibility periods, we have cases where a party-appointed expert was a figurehead of another expert who was suspended and could not testify in anti-doping proceedings, also before CAS. My question, perhaps is a question for Professor Cowan, I do not know, is: can we sanction those experts or we are only dealing with violation of professional ethics rules?

My suggested approach is to consider all the circumstances of each single case because, I repeat, our experience has shown that we are not dealing, in general of course, with consultancy services made openly but with semi-clandestine relations.

With regard to the blacklist updates, WADA is doing this job now on a quarterly basis, and perhaps it is not so complicated, especially considering that WADA receives the decisions issued at local and international level. Unfortunately, we know that such list has not binding force.

In my view the WADA blacklist should have binding force and all the athletes must abide by such list in deciding their assistance.

The liability about the entries of names and their deletion in such list might be jointly up to NADOs, ADOs and WADA itself.

For sure, to conclude, I have highlighted the shortcomings of the current version of Article 2.10, but I think that we are on the right path. In this respect, we should link some provisions of the Code, such as Article 21.2 about roles and responsibilities of athlete support personnel, with proper sanctions. In fact, this Article says that athlete support personnel shall disclose violations committed, but there is not a sanction if they do not.

If we do this job, I think we can hit the target. I hope that in the future such amendments can be discussed to allow NADOs and ADOs to effectively sanction cheaters and block the so-called upstream market of doping.

Thank you.

MR BERNASCONI: Thank you very much, Mario.

Now we can reopen the debate within the table. I don't know if there is immediately a question or a contribution from the floor?

Otherwise I would have the first one, open to everybody, maybe Michael to start.

Michael, you said basically that we changed the WADA Code but still these new amendments brought new debated issues, and you said that this is actually bad for certainty. Now at the same time we hear some criticism on some rules or, as Ulrich [Haas] did earlier today, our attention is brought on the existence of clear gaps in the rules; also, Mario just claimed that some rules basically do not work. The question is should we just stop to amend the Code, which would certainly be welcome for the authors of the WADA Commentary [LAUGHTER] or shall we try to make it better from time to time?

MR BELOFF: All one can say is that experience will teach us to what extent there will need to be revisions. There have already been two revisions and I've no doubt that there will be revisions in the future.

Ulrich has made a very formidable point, that the absence of any form of corporate liability in the WADA Code, contrasted, for example, with the IF regulations, is a signal omission in the current state of affairs. I think it might be naive to suggest that the Russian example, serious as it is, is going to be the only example. It is the most sophisticated example, but I suspect we're going to find there are other countries in which a diluted version of the same objectionable system exists. The short answer to your question is, yes, there are bound to be revisions in the future, but I suspect not immediately and I suspect that this admirable commentary we're all going to get will actually itself point the way to the kind of reforms that in the future will be required.

MR BERNASCONI: Thank you very much. Brianna, do you want to add something?

MS QUINN: If I could just make a comment on that.

I have the impression that the WADA Code is getting more and more complicated. It is obviously good to keep revising it and keep trying to improve it, but whether we need to build upon things that are already there or maybe even just think about cutting some things out and starting again, I'm not sure. Because at the moment I just think we're building upon, building upon, building upon, and maybe some things are being lost.

MR BERNASCONI: Thank you. I would like to give the word first to Jean-Pierre Morand and then to Matthias Kamber.

JEAN-PIERRE MORAND: I had actually an observation on Michael's presentation but I would comment also to Brianna first.

I think what Brianna says illustrates a problem. Sometimes you try to mend a particular question which arose in one precedent and you add something in the Code which is not quite consistent with the general strategy the Code should be pursuing. This has happened in the revisions of the Code and I think it would be a good idea, the next one, to sometimes take a step back and go back to basics. «cheating» was maybe not a good idea. It was maybe not a good idea to use that word in the Code, for example.

The fact, for example, that the source of the product is expressly mentioned in the definition should not be a source of debate, it should be a source of reflection that maybe this detail should be removed from the definition rather than building up theories on why it is there and why it is not there. I think there is a big work to be done taking back and going back to principles.

To Michael: at the moment, in the existing Code there is one instance, and the problem is that it is not one instance, which is in charge of applying the Code and that is the CAS. But the CAS is a misleading word. The CAS is mainly panels who have different opinions, who can be good and, sorry to say that, but sometimes are bad. Then we say, «Oh, there is a precedent which says that or that». I think one thing which should be avoided, at the moment there is not something like a Supreme Court. There are opinions given by diverse panels, but there is no absolute authority. And there are objective mistakes in some precedents and they should not be lent an authority which they should not have as effectively first instance decision in the judiciary system. As long as we don't have a kind of Supreme Court of sport, where the college of people gather and say «this is the authoritative precedent», we should be cautious about the ambiguity of speaking about precedence of the CAS or the authoritative value, rather, of the precedents of the CAS.

MR BERNASCONI: Thank you, Jean-Pierre.

Now please pass the microphone to Matthias and thereafter to Rocco Taminelli one row behind.

DR MATTHIAS KAMBER: Thank you very much.

I just wanted to say about the same as my colleague said. For me it is clear, we had 2004 Code, it was a thin one, then it was thick, and again thick. And if you look at the construct of the Code, and then you have your International Standards, and then you have the Technical Documents. And sometimes you have the feeling something is regulated in a Technical Document that has a huge impact and that perhaps we should have in the Code? So, the pyramidal approach is no longer here. For instance, the Technical Document on the sport-specific analysis has a huge impact on anti-doping organisations because it is telling them what and how to test.

So, I think we should not only go one step back, but two or three steps back and think totally new, and just regulate principles and then it is easier to have case-by-case regulation.

I'm not a lawyer, I'm a scientist, but I think sometimes if you just regulate principles how to analyse or how to do something and then to build with experience. I guess if you go and just amend the 2015 Code again and another 100 pages are added, and several things in between are already wrong because it's in between, now this would be much better to go on with the 2015 Code.

MR BERNASCONI: Antonio Rigozzi, you wanted to say something?

PROFESSOR ANTONIO RIGOZZI: It is just to avoid hearing my friend and compatriot Rocco Taminelli saying they got it all wrong...! No, seriously, hearing Jean-Pierre Morand and before passing the mike to Rocco, I needed to say that not always, but more often than not, I agree with Jean-Pierre. In particular with respect to his point about how the Code is amended to «mend», I think is the word he used, a particular issue that was not necessarily anticipated in the drafting process.

I just wanted to go back to the very beginning of the WADA Code in 2003 – it was my first involvement in anti-doping. The situation was as follows: *Festina* happened and something needed to be done – this is why WADA was created and, eventually, the Code was enacted. Back then, when the first Code was drafted, what everybody had in mind was real doping – the kind of doping that became visible with *Festina*. That's the reason why the drafting team came up with this rule: positive sample means doping, hence two years – end of the story. Let's keep it simple and achieve harmonisation, right? I remember that when WADA asked us whether this was fine from the perspective of athletes' rights and proportionality, (i.e. the first legal opinion⁸⁰), we did not really hesitate to say «yes, provided that you put in the no fault and no significant fault or

⁸⁰ Kaufmann-Kohler G, Malinverni G, Rigozzi A (2003) Legal opinion on the conformity of certain provisions of the draft world anti-doping code with commonly accepted principles of international law, available at <https://www.wada-ama.org/sites/default/files/resources/files/kaufmann-kohler-full.pdf>.

negligence» to ensure some level of proportionality⁸¹. When I say «we» I should have said Professor Gabrielle Kaufmann-Kohler and Professor Giorgio Malinverni, who was the Swiss judge at the European Court of Human Rights at the time and who was not easily convinced. Had we known how WADA and CAS would interpret the concept of no significant fault or negligence, I seriously doubt that we would have rendered the same opinion – but that is another story. My point is that even if Professor Malinverni agreed to sign off the two-years «quasi-fixed» two-year sanction it is because we genuinely understood that a positive must have been an act of actual doping or, in other words, that we were going after the real cheaters.

Then things changed: laboratories became more sophisticated, detection techniques increasingly sensitive, positive cases were necessary to justify the amounts of money – often public money – put in the anti-doping system at a time where EPO was still not reliably detectable, the biological passport did not exist and a test for HGH was not even contemplated. We soon realised that the system in place was effective to catch «inadvertent dopers». The need to adapt the original system to the new reality became evident and the first adjustment was to acknowledge that a great number of substances on the prohibited list were more likely to be used by inadvertence than with the intent to dope and that this should be taken into account in the sanction regime – this is why the definition of «*Specified Substances*» was changed in the 2009 WADA Code⁸².

After the 2009 WADA Code, with athletes hiring sophisticated lawyers and the widespread use of supplements making contamination a real possibility to explain a positive finding, it became clear that even a positive for a non-specified substance was not necessarily the result of an act of doping, hence the further revisions to put a new emphasis on «cheating», which was discussed by Emily earlier this morning. Another thing that

⁸¹ Kaufmann-Kohler G, Malinverni G, Rigozzi A (2003) Doping and fundamental rights of athletes: Comments in the wake of the adoption of the World Anti-Doping Code, *International Sports Law Review* 3:39-67.

⁸² As noted by WADA, the 2009 WADA Code introduced «*greater flexibility*» by changing the definition of specified substances so that «*all prohibited substances, except substances in the classes of anabolic agents and hormones and those stimulants so identified on the Prohibited List, shall be «specified substances» for the purposes of sanctions*», WADA, 2009 World Anti-Doping Code, <https://www.wada-ama.org/en/questions-answers/2009-world-anti-doping-code>.

became clear is that cocaine and marijuana were mainly used for what they are typically used, namely as social drugs or substances of abuse and not for enhancing performance, and a change was made in the Code to deal with this sort of situation.

So, it is just inevitable that a text like the Code should be adjusted to the evolving reality. I think that's inevitable. I agree with Jean-Pierre that the piecemeal fixing process is dangerous and when you adjust this, adjust here, adjust there, you might end up with inconsistent revision. But that, again, is the judicial reality, and it is the role of the courts to fill the gap and to say what the law is. And here I am not sure I totally agree with Jean-Pierre's reluctance in accepting the role of CAS. To me when WADA decided that all appeals must be brought in front of CAS it de facto put CAS in the position of being the supreme court of anti-doping. I think we have to trust CAS, because it is the only thing that we have now. CAS can be inconsistent, it is part of the 'game', it is arbitration after all. But there can be convincing opinions and less convincing opinions. If everything is published, if everything is discussed, if the lawyers can address the arguments behind a decision, I'm sure that we are going in the right direction. And then there will be a new codification. It is exactly the same in state law.

When you realise that there is a clear trend in something that was not anticipated, then you adjust the wording, taking into account what the case law is. From that perspective I think that CAS – and I see Jacques' point to say, yes, sometimes our hands are tied – I think sometimes CAS could and should be probably more courageous. If you come to the conclusion that a provision, for whatever reason, is not fair or could be against the principle of proportionality or, I don't know what other principle, panels should be prepared to say 'it doesn't work'. If there is another panel that agrees and you have two decisions, three decisions, four decisions in that direction, I'm sure that even WADA will consider that in the next revision.

And, believe me, it is better that way than another *Meca-Medina*⁸³, where the athlete's lawyer does not 'forget' to plead that penalties are excessive under the circumstances, and you get the European Court of Justice looking into the issue of proportionality...

⁸³ EDITORS' NOTE: The reference here is ECJ C-519/04, *Meca-Medina & Majcen v. Commission*, judgment of 18 July 2006, para 55.

I didn't expect to be so long. Sorry, I got carried away.

MR BERNASCONI: Nothing to be sorry about.

Now to Rocco Taminelli.

ROCCO TAMINELLI: Thank you, Michele.

I agree with what we are talking about partly. But if we see the WADA Code now, it is well structured. It can always be better. But it is almost only athlete oriented. If we want the athletes, we've got them with the Code. But we have only the weaker part of the doping. As we have seen from Ulrich and from Mario Vigna, the stronger part and the part which will survive after the athlete has finished his career are still there and we cannot touch them with the WADA Code.

Don't you think it would be perhaps good to have something that will be more oriented in this direction? Because the real problems I see in cycling, for example, are the sports directors that are organising the cheating in the teams.

Still now we have to remember that it's not because there are less doping cases that the situation is much better than before. But, as I said, it will be perhaps worthwhile to go in this direction too.

MR BERNASCONI: I think, Mike, you want to say something also on this last question, maybe?

MR MORGAN: I was just following up on Antonio's, actually both, in fact. I don't actually think that the Code is the problem. Of course it is not perfect, and I'll be the first to say that we've had some issues with some of the provisions, but very often I think the problem is the decision-making in the anti-doping movement, not what's going on in the Code.

So, you have, for example, clenbuterol. We've had this problem now since, or at least the first time I remember that we talked about it, 2009. I think, Dr Cowan, you were involved in that case? So, we know now that there is a problem and we're still testing clenbuterol in picograms per mL. I remember years ago I was asked a question, should there be a threshold?

And I thought, well, I can see the problem with a threshold is you might lose out on people who have actually cheated. But I think now we're at a stage where we know it is a problem, definitely in Mexico, in China, possibly in other countries, and I do think that it could do with a lot of common sense, just setting a threshold, and that would be a lot of the problem gone.

Then you have higenamine, for example, now expressly on the prohibited list; last year it wasn't on the prohibited list. WADA considers that it is a beta-2 agonist, other people, people in this room even, aren't certain it is a beta-2 agonist. And that comes back to Michael's point earlier on about legal certainty. And that is a serious issue.

If you're an athlete, you haven't got a Ph.D., higenamine is not on the list and it is not clear anywhere that it is considered a beta-2 agonist, except for WADA. That is not a problem with the Code, that is a problem with decision-making around the Code.

The same with hydrochlorothiazide as well. We now know it is the world's most widely used heart drug and ends up in the water system because we can't eliminate it properly. Again, because some of the labs are testing in picograms per mL, how is an athlete going to be able to explain a positive test for hydrochlorothiazide if it has come from the water? It is almost impossible.

Again, to me that is common sense. Sure, you may lose out on an athlete who did deliberately take hydrochlorothiazide, but at the same time how many are we catching who just drank water, for instance?

So, I think we can spend a lot of time here bashing the Code and I don't think the Code is that bad, I think it is some of the decision-making.

Can I talk about meldonium in this room? That is not a problem with the Code. So, I think to some extent the anti-doping community needs to look at itself and, you know, it needs to do what it needs to do in order to catch cheats, but I think there needs to be some common sense.

That's it.

MR BERNASCONI: Thank you. Now the microphone first back to Brianna and then Jacques.

MS QUINN: If I could, just to add another substance to what Mike was talking about, I also think you have something like cocaine, where you're having cases where there isn't any of the active drug left in the system – so it couldn't have actually enhanced performance – but we're still bringing cases against people who have that in their system. So, I agree with you to a certain extent, but in a case like that where you are obliged, after an AAF, to go forward with the proceedings, in that case the Code is the problem.

MR BERNASCONI: Jacques?

MR RADOUX: I want to come back on what Jean-Pierre, Antonio and Mike just said. I'm not the author of the Code, and I don't say that the Code is the problem, but there are some issues with the Code. One of the issues is, as Jean-Pierre said, that as long as there is no Supreme Court, as there is in ordinary state law, whose judgments have a value of precedent. If there is a Supreme Court that binds all the other judges, the imperfection of a legal text is going to be solved by the judges.

Now if you don't have a system of strict legal precedent, which we do not have at the CAS, then you should have a clearer text. At least as clear as possible. If there are notions or terminology used that are not clear or ideas that nobody understands, except maybe the authors, but I have my doubts although I don't know the authors, then how should we work?

In a normal legal system you have a text which is maybe not perfect but the Supreme Court intervenes and after one, two, three, four, five years, they make an amendment of the text, taking into consideration what the case law has said. Thus, the law becomes clearer. Now here we have a text which is not clear and then we have a case law where it is, as it was said, «up to the judges». Where's the legal certainty for the athlete or whoever is going to be in front of the CAS when they end up saying, «well, I have a good panel/ I have a bad panel» or as some people just said: «I have a good lawyer, I have a bad lawyer». There is no security and there is no equal treatment. If we talk about an equal or level playing field, it should apply in front of the courts as well.

So, I think that the Code could and should be amended. Some terms should be specified or clearer. If something is not clear and you don't know yet what it means, well then take it out or create a legal certainty. This is what I wanted to say to Jean-Pierre and Antonio as well.

Concerning the hands being bound, I am a very recent CAS arbitrator, but are we there to say «this disposition of the CAS Code does not apply any more» or «it doesn't make sense» or «we don't respect it» or «we don't apply it»? Are we called upon to do that? Do we have the power to do that?

It is not like in normal state law, where if somebody is not happy with the disposition, he goes before the court and the disposition is going to be annulled.

A part of the law, an article of the law, is going to be declared void, sent back to the author, the legislator, with the message: do your homework. As you just said, decision-makers should do their homework. Meldonium is one case where the authors should have done their homework, because if such a case comes in front of the ECJ, for sure the decision will be pretty clear.

But is there flexibility in the WADA Code for the judges? Was there a will to leave flexibility for the judges? As far as I have heard from the pleadings in front of the CAS, there was no will to leave any flexibility for the judges.

Some of the recent awards, rendered by panels in which our distinguished colleague here at the table was sitting in, confirm that there is not much room left for a CAS panel to take into consideration the principle of proportionality or other circumstances.

So, I have my doubts if we are free to do whatever we consider or would consider just when we have to apply a four-year ban for a first infringement or a first anti-doping rule violation, knowing that it is maybe a bit too harsh.

MR BERNASCONI: Thank you Jacques. I see that Antonio Rigozzi wants to add something, then please Mr Beloff.

PROFESSOR ANTONIO RIGOZZI: I think that this is the logic of the vast majority of the CAS awards. You read the CAS awards, it's very rare that you will find any reference whatsoever to national law. Of course there is the part at the beginning saying that the arbitration is governed by Chapter 12 PILA, but then when it comes to the substance, the award just applies the sports rules as they are.

Just to use your example, Jacques. If, for whatever reason, under the circumstances you come to the conclusion that four years is too much, but you think that according to the

wording that's the only solution, to me that's not the end of the story. There is always a national law applying to a case, even only «subsidiarily» to use the words of Article R58 of the CAS Code. I'm a Swiss lawyer, so now I'm thinking in terms of Swiss law. Of course, a four-year ban is an infringement of personality rights and we know that this infringement is presumed illicit under Article 28(1) of the Swiss Civil Code. Thus, it can only be justified by the limited set of circumstances set out in Article 28(1) which in practice boil down to a balance of interests test which is not that different from a proportionality test.

So, to me, if there is no preponderant interest justifying the infringement that would result from the application of a sport rule, that rule should be disregarded or applied in a way that makes the infringement proportionate on balance of interests. In other words, even if the rule is crystal clear, if the circumstances of the case constitute a violation of the athlete's personality rights there is always a way not to be bound by the rule. That's what I had in mind when I said that, and it is not CAS' fault, it is probably that the lawyers do not use enough the resources that national law provides.

Your comments about *Meca-Medina* show that European competition law may be very effective. I still have a philosophical problem with the application of competition law in a relationship between an athlete and a sports governing body. But this is another story. I think personality rights is probably the best suited area of law in this ambit because, at least in my understanding, it is the private equivalent of human rights. And when you look at how it works, in particular with the balance of interests test, it is very similar to a human rights analysis. So, to me there is something that can be done by CAS. And of course it is the role of the lawyers to point it out. And maybe the first time it will not go through, but the second time you have a more receptive panel. I mean there are awards out there that make the law. I can think of a case where regulations providing for training compensation for children playing recreationally were declared inapplicable as a matter of Swiss law⁸⁴. So, if we can do that for football regulations there is nothing preventing us to do that in anti-doping, but you need the assistance of the lawyers. That's my thinking.

⁸⁴ CAS 2012/A/2720, *FC Italia Nyon v. LA de l'ASF & ASF & FC Crans*, award of 11 April 2014.

MR BERNASCONI: If I may comment, actually I do think that there are also some CAS awards out there that are making such considerations in anti-doping cases.

PROFESSOR ANTONIO RIGOZZI: Yes, some, and in particularly *Melloui*⁸⁵.

MR BERNASCONI: But maybe not so many and maybe not published.

Michael Beloff, you wanted to add something.

MR BELOFF: I agree with what Antonio says.

A conventional phrase in the order of procedure is that Swiss law will apply subsidiarily, and sometimes of course there are express agreements on other systems of law. But the starting point of the advocate's argument is almost always the particular regulations of the sports body. Frankly, in particular when you are sitting with a panel, none of whom are Swiss lawyers or none of whom happen to be lawyers of the jurisdiction whose law in the particular circumstance applies, it really is up to the advocates to supply the information, and so on.

I quite agree with you, CAS doesn't occupy a vacuum. It is basically in Switzerland. Swiss law basically applies unless there are other agreements, and therefore we ought to be more informed if Swiss law actually contradicts the regulations that are otherwise applying.

So, that's the answer. And I'm very sympathetic to your point, but it's as much the responsibility of the advocate as it always is of the arbitrators. Just a more general point arising out of the other discussion. Obviously, if human beings were perfect, they could devise a perfect Code and one wouldn't need a series of revisions. But I believe that just experience of the way in which a particular code operates and the awards or judgments that are given pursuant to it do give guidance to those whose responsibility it is, eventually, to reform or improve the Code itself. Just by way of analogy, I have been for, what, three or four years chairman of the International Association of Athletics Federations' Ethics Board. We were confronted, as the first Board, with simply a set of substantive rules and a set of procedural rules, and those are those which we had to apply.

⁸⁵ CAS 2007/A/1252, *FINA v. Melloui*, award of 11 September 2007.

As the years or months passed by, experience taught us that there were these defects in the procedural rules, there were these ways in which the substantive rules could be applied. As you probably know the IAAF, as from 3 April this year, has actually transformed the system, it has revised the institutions and it has revised the Code. In so doing they have built on the experience that we had of the inadequacies of the status quo. That's how improvements are made.

MR BERNASCONI: Thank you, Michael.

Mario, you wanted to add a comment from your side, and then again I would like to ask for questions from the floor.

MR VIGNA: Yes, just a very brief comment. I think that for all cases our approach should be the «individual case management». I remember the award regarding *Gasquet*⁸⁶, that was a case of no fault or negligence. I do not know if you agree, but I do not know how much common sense there was in that award. Luckily, it was not very important for the case law of CAS. In any case, I think that the trouble is that when you open the door, even if the opening is small, there is the risk that, of course, common sense can enter but, at the same time, also lots of cheaters. So, I believe that perhaps the idea of a Supreme Court is smart, but I think that we should be confident in how the CAS panels are working because they, in my opinion, are able to distinguish what case law could be followed and what case law should remain isolated.

MR BERNASCONI: Thank you.

Even though we don't have too much time now, any questions from the floor?

I believe that Steven Teitler, the third row from behind, raised his hand first.

STEVEN TEITLER: Steven Teitler, from the National Anti-Doping Agency of the Netherlands.

It is fascinating to hear all this and see all this knowledge about CAS awards and the Code, but I think there's another aspect to it that we haven't discussed. It's about whether the law is killing anti-doping efforts. If you look at it from a different perspective, and it has

⁸⁶ CAS 2009/A/1926, *International Tennis Federation v. Gasquet*, award of 17 December 2009.

been raised a bit before, the Code is a private law instrument and it can apply to athletes and athlete support personnel as long as they are under the umbrella of a sport federation and sports association law. But if you look at the availability of drugs, if you look at trafficking, if you look at production, if you look at doctors and other kinds of athlete support personnel who do not fall under sports rules, then the question is what can be done in terms of enforcing rules in terms of preventing doping. Then you talk about what you can do from a private law point of view and where private law does no longer apply. Then you look at what are the weaknesses, what are the gaps, in the anti-doping efforts and what are the limitations. Are those legal limitations, that law enforcement agencies are not allowed to share data with NADOs or IFs? Is it an international public law issue? What can you do about it? What are the weaknesses? Where are the areas of need, and which parties or groups of countries, for instance, governments, international sports bodies, have the responsibility to address those weaknesses? Maybe that's something that we'll look into tomorrow, but that's something that I've not heard, which is basically a more comprehensive approach to anti-doping, not only through private sports law but also through public law and the involvement of governments.

MR BERNASCONI: Thank you, Steven.

We have really run over time so I ask the next questions to be very short. Despina Mavromati first.

DESPINA MAVROMATI: Yes, just to make a last point on what Antonio and Michael said before. I fully agree with you both on the lawyer's obligation to bring forward arguments on the violation of the personality rights. But we should not forget that the arbitrators and the CAS arbitrators are seated in Switzerland, they also have the obligation and they can spontaneously control the compatibility of the WADA Code and any other provision they are supposed to apply with the Swiss public policy, and the personality rights form part of this, and we learned this lesson the hard way through the *Matuzalem* judgment⁸⁷ many years ago.

MR BERNASCONI: Thank you very much, Despina.

⁸⁷ EDITORS' NOTE: The reference is to Swiss Supreme Court, 4A_558/2011, *Matuzalem v. FIFA*, decision of 27 March 2012.

Sorry, Martial, let us first hear Ulrich, who sits close to Despina, so just a priority for say «geographical» reasons. Ulrich?

PROFESSOR ULRICH HAAS: Just in short. I'm in line, I think, with most of what has been said but I think we have to be a little bit more realistic. Just the idea of taking a step back and making the same things more simple, I think nearly every stakeholder that submitted comments to the World Anti-Doping Code said it has to become simpler, every single one. But, nevertheless, the same stakeholders made 7,000 proposals for changes. [LAUGHTER] You have to ask yourself, what do you want? You can't have it both ways.

The second thing I would like to draw your attention to is that I think almost any revision of the Code was in the context of some of the big scandals. So, Festina scandal, we had the 2003 Code. We were obsessed by harmonisation.

Then we had a couple of cases where we thought, «Ah, this is not justice. This is not giving justice». So, the second revision was to be more fact specific and case specific.

The third revision was absolutely in light of the Armstrong case. I'm 100% sure that we never would have a four-year ban or something like this without Armstrong.

The only way, I think, how to counter that because, I mean, Mike you mentioned common sense, this room should engage in any revision that there is. I tell you, all the other lobby groups are engaging and they are getting better and better at it. The only ones that absolutely do not engage, because they think: «Ah, we can fix it at the end when we have a CAS panel that looks at the stuff», are actually all the counsel and all the lawyers». No concerted action from the CAS arbitrators. Nothing from the lawyers' bars that are specialised in sports law. Not a single submission from any one of the universities with thousands of teaching chairs for sports law. Not a sole intervention. I mean it's difficult to complain if you don't engage, I think.

MR BERNASCONI: Thank you Ulrich. Now the microphone to Martial, if possible please very short.

PROFESSOR MARTIAL SAUGY: Very short.

I do agree with Mike that certainly the entire doping community has to come back to common sense. But I do agree with Mario also to say that we as, let's say, technicians or scientists in front of a court in general, in some cases we do not understand what is really the common sense in the decision.

Brianna was speaking about the *Devyatovskiy* case⁸⁸. I remember also the *Devyatovskiy* case was based on the precedent of the *Varis* case⁸⁹. Personally I do not understand the common sense behind the decision because, you know, everything in the case, every piece of evidence, was indicating that it was doping in this case. So, you have to apply common sense in both ways.

MR BERNASCONI: Thank you. Now, Ladies and Gentlemen, I ask you, first of all, not to get up and leave immediately, but to stay one moment in the room. I know that when one is close to the end there is a strong need of freedom, but we are not exactly there yet. No, not yet.

First of all, before even thanking the participants on our Panel, I want to thank once again Antonio, Emily and their team for organising this fantastic afternoon and giving us the possibility to be here.

[APPLAUSE]

Second, thank you to all the participants and the members of the panel for the great contributions.

I will give now in 30 seconds the word to Emily that will tell us what happens later today and tomorrow. From my side I will simply summarise: «drinks, first...».

Thank you.

[APPLAUSE]

⁸⁸ CAS 2015/A/3977, *WADA v. Devyatovskiy*, award of 31 March 2016.

⁸⁹ CAS 2008/A/1607, *Varis v. International Biathlon Union (IBU)*, award of 13 March 2009.

DAY 2 – SATURDAY 29 APRIL 2017

IV. THE «POLICY» ASPECT

[The second day of the conference was devoted to presentations and resulting discussions on various policy aspects of anti-doping. The session was chaired by Professor Philippe Sands QC.]

1. Session introduction: Professor Philippe Sands QC⁹⁰

PROFESSOR SANDS: Good morning, everybody.

My name is Philippe Sands. I know some of you here, but not all of you. I am Professor of international law at University College London and a barrister at Matrix Chambers, and I speak before you with considerable humility as I am a relative newcomer to this world, coming to it with virtually no background in the world of sport and law. I am a public international lawyer and I deal with a lot of disputes of great sensitivity around the world.

About six years ago I had the great fortune to be proposed for the Court of Arbitration for Sport, and I have sat on a significant number of cases over the past five years, many of which involve issues of doping. I have both the advantage and disadvantage of coming to the matter freshly, with an open mind: as I am not an athlete, or a sports lawyer, or a sports administrator, I am an entirely independent participant in the process.

It has been a fantastic learning experience, I have to say, to have been involved, as some of you will know, in some significant and interesting cases on doping. It has been an important experience because I've come to see directly, and feel acutely, the responsibilities to a whole raft of different actors, all of whom have legitimate interests in getting these issues right: the athletes, of course, who appear before us; the regulatory authorities; the athletes who are not present.

I come from a legal system – a member of the Bar of England and Wales – in which our function and our duty is to the system as a whole. So, there's no predisposition in one direction or another direction. It is the system as a whole that is significant. In many of

⁹⁰ University College London; Matrix Chambers; CAS Arbitrator.

these cases one feels the acute tension between competing interests: the tension between law and policy; the ability to interpret text in a WADA or other code in one way or another way.

One thing that I do want to say is that as a CAS arbitrator it is very clear to me that that responsibility of getting it right is something that I have been acutely aware of in each and every case in which I have been involved. We take the responsibility incredibly seriously, in part because we know that the consequences, not least for the athletes, may be absolutely huge. At the heart of the issue is the need for an independent system. Here I'm speaking on my own behalf. Just in conversations, and maybe we'll talk about it later, the whole question of the relationship between the adjudicating mechanisms, whether it is in the regulatory authority or at the CAS, and the perceptions of independence are extremely important. I, for one, always try to put that in practice in each and every case and make absolutely sure the perception of independence is acute.

Let me turn to the morning ahead of us. We have a whole raft of very different perspectives. I'm not going to introduce the totality of the morning, but the format will be essentially for a series of presentations, starting in a moment with Andy Miah, my colleague from the United Kingdom, and then a panel giving the athletes' perspectives, and then more presentations and another panel. In those panels there will be an opportunity for you, also, of course, to ask questions to those who are participating. Without further ado, may I invite my new friend Andy Miah, a professor from the University of Salford, who is going to talk about something certainly that I find extremely interesting, an aspect of doping yet to come.

2. Overview of a current ethical challenge in anti-doping: Professor Andy Miah⁹¹

PROFESSOR MIAH: Thank you to the WADA commentary team for inviting me here to give a talk.

It has been a long journey for me in anti-doping and, to some extent, I want to take you through that 15 years or so within which I have often found myself on, for many people, the wrong side of the argument, for want of a better phrase.

I was asked to talk about a current ethical issue around anti-doping. I think there are many, but I want to give you a glimpse of one particular topic through that journey that I have had in this world and outside of it. I began in this field from a sports science background. My PhD was in bioethics and sport, where I looked at genetics in particular, and my work expanded into bioethics more broadly. It is that interface between sport's use of performance enhancement and the wider societal uses of technology that I want to address.

Forgive me reading a bit of the manuscript. Often I give talks just by talking, but I sometimes also write a manuscript that I develop through the talk. With this one I'm going to read a bit and hopefully give you an insight into the challenge, I think, with identifying what constitutes a *current* issue around ethical concerns in anti-doping.

Around 20 years ago I gave a talk at the first International Conference on Human Rights and Sport which took place in Sydney. I don't know if there was a second International Conference on Human Rights and Sport, but the issues were quite significant. My talk was titled, quite simply, «*The human rights of the genetically engineered athlete*». Most people, as you can imagine thought: «What the hell is that about?» Especially people in sport thought this must be something like doping but just on a genetic level; that's how we should regard it and how we should think about the ethical issues around this topic. For most people in that world, this was simply another case of «bad hombres» using things they shouldn't be to compete in sport. But it was much deeper for me than just that. I was interested in thinking about a world in which there were genetically modified

⁹¹ Professor and Chair, Science Communication and Future Media, University of Salford.

people whose enhancements were decided for them by the genetic selection or enhancement decisions of their parents or ancestors and how the world of sport might deal with that kind of person.

I wanted to imagine athletes who had not themselves done anything to achieve their genetic advantage but whose parents, who had sought to optimise their child's chances through genetic selection or genetic enhancement, would have an impact on their lives. Their existence would not violate any rule within anti-doping, even though their being permitted to take part in elite sport would certainly mean that anyone who was not genetically modified or selected would be less competitive.

This was a time of considerable change in the world more broadly. This talk found itself one year before the completion of the Human Genome Project. I want to take you back to that moment.

The Human Genome Project was nearing completion, and in fact was creating an incredibly challenging set of ethical issues for the world at large. It seemed to me particularly challenging for the world of sport. How will it deal with a world in which this technology was used? But all of a sudden the work of Crick, Watson and Franklin came to life. We found ourselves in the middle of a new era in human evolution. This was what was at stake at the time: this feeling that we are transcending those biological limits and remaking humanity in quite controversial and challenging ways. We hadn't figured out how this would operate. So, I wondered how would the world of sport deal with an era where genetic information and even gene transfer found its way into sport.

Looking back, I suppose I also thought that this was a game-changer for the subject and that intrigued me, certainly. Gene doping was going to bring about the collapse of anti-doping, a system which I had studied and found to be left wanting philosophically and practically as a project interested in sustaining a moral framework to sport that I thought was unjustified, undesirable and ineffective.

Now, some 20 years later, and also 20 years since *New Scientist* published its first article on performance genes, I'm left wondering: «Is this still a current issue?»

In 2001, in September that year, there was a conference scheduled at Cold Spring Harbour where the World Anti-Doping Agency would talk about gene doping and the prospects. 9/11 happened, that conference was cancelled and postponed to the following year, but this was the time at which Professor Lee Sweeney began to say that he was being contacted by athletes and their entourages with a view to them being enrolled into clinical trials using gene therapy. This brought the issue to life for the world. Lee Sweeney saying this made it a live issue, made it a current issue.

Lee's work on IGF-1 in particular revealed a proof of principle in the science and he spoke of an appetite among athletes to enrol within his trials. This was about as current as it got, or so I thought. Also at this time the IOC set up a gene therapy working group and soon after WADA did the same. We've now had a good 15 years of talking about this matter, but what has really changed? Well, we have research like this [indicating video of mouse on a treadmill⁹²] coming out of Case Western Reserve University, which gives you a sense of how genetic interventions may have an impact on performance.

So, over these 15 years or so there have been discoveries, findings, that suggest a proof of principle that could have applications for humans. And since every Olympic Games from Sydney onwards the media has published stories claiming that gene doping is the next big threat for sports while many other threats have also come and gone. Think of THG, the «clear» or designer steroids more generally. And there have been examples of how genetic interventions can dramatically affect performance capacity, at least within animal models.

So, it has been current for at least 15 years. Fast forward now to 2016 and we see how this becomes manifest within public discourse.

I was in a meeting with our chief science adviser in the British government this week where we talked about trust and expertise, and I gather it came up a little bit yesterday. But here's how it happens. Scientists were asked about what's going on in the world of science, and they tell them. They are then asked about what's going to come next, and

⁹² https://www.youtube.com/watch?v=RcXuKU_kfwwkfwv.

they tell them again: «*We don't know yet whether this has been done anywhere, but...it will be used sometime*».

This is a quote from Carl Johan Sundberg [WADA Gene Doping Panel] from just last year, before the Olympic Games began in Rio, which tells you how this discourse is propagated within the media, how current issues are formed through the opinions of expertise but, crucially, through the requests of them to make predictions about what's coming next. So, it is a discourse that's facilitated by experts. One of the predicaments, I think, of anti-doping not specifically, but it certainly is one that it needs to deal with, is the ethics of communication around emerging technology issues. It is a real challenge.

You can find quotes like these from every single Olympic Games period. Usually about a month before WADA puts out its big statements about the fact that no one is going to get away with it this time, we have some fancy new test that is going to catch everybody, which happened last year with a genetic test for EPO, and you have these claims about whether in fact gene doping is here and here to stay.

Personally I experienced this directly. In 2004, I published a book called «*Genetically modified athletes*⁹³», and just before the Athens Olympic Games, the BBC asked me on to their flagship Newsnight programme to talk about these implications and we had a good debate about where we were and where it might go. Eight years later, during the London 2012 Games, I had exactly the same debate on the same television programme about gene doping. It was almost word for word. So, there's a real challenge here in terms of how we think about what is current and how we deal with it.

If this is a current issue, what was it 20 years ago when I started writing about the subject, when New Scientist published its first article on the subject? What is the difference between an emerging technology and a current technology when thinking about what we should be doing within our ethical investigations and policy making?

Some of my learning in bioethics were shaped by my time at the Hastings Center in New York, where conversations with Dr Thomas Murray, who was involved with WADA

⁹³ Miah A (2004) *Genetically modified athletes: Biomedical ethics, gene doping and sport*. Routledge.

at various levels, led me to conclude that sport would not deal with this matter head on since bioethics, it is often said, must deal only with the present-day reality of scientific possibilities, not what might be here in five or ten years' time. Genetic enhancements weren't possible scientifically, at least we didn't know that they would work and be safe, and so did not deserve our time, even if they were rich philosophical debates. Instead we focused on gene tests and selection, and soon after such tests were becoming available. Here's one screen shot of a genetic test that was made available commercially. You could buy this test over the Internet. It simply takes a mouth swab and gives you some data on whether you are more likely to be a power-based or endurance-based athlete. Every scientist in this field has criticised this test, but the point, I think, from a policy perspective and from an intervention perspective is that it has become a social reality. The test is out there. The language of genetic tests as being determining of capacities or likely life achievements became a reality. So, this led WADA to focus on genetic tests, and it published the Stockholm declaration in 2005, based on our talks.

Now I may have an erroneous definition of the word *current*, but it does matter how we define this term. I consider it essential to the work of ethics that we do mid- to long-term speculative work. Space, time, and money is required to undertake such enquiries or else we lose sight of the bigger problems and lose time to determine our resolve. Failing to dialogue with speculative matters also limits the duration of our convictions and undermines our capacity to avoid problems that we may face in the future. In any case it is critical to distinguish between different forms of that word *current*. And we can have quite a simple distinction between what is happening right now, so for example cases that come up in the world of sport or actual gene doping that's taking place that we know about, this is one way of thinking about what's current. But a lot of the conversation around anti-doping focuses on a second definition which talks about the sorts of things that preoccupy our time – the worries we have about the future. Certainly for nearly 20 years now, gene doping has been a «current» issue in that respect.

While it makes sense that we focus our efforts on the first of these, focusing on: Well, if it's not here yet, let's focus on the stuff that's here and deal with that, we need to think about the second one to avoid having to deal with the first one. If we don't deal with these longer-term implications, then we have a harder time dealing with the stuff that comes at us at crisis points.

Here's an example of the problem. We are moving into a world where these technologies are talked about not as a means of distorting nature or corrupting some internal essence or jeopardising a moral framework to how we recognise talent or effort in sport, and the like. Rather, it actually has something much deeper to do with how we are changing as a species and as individuals. This terribly long quote is a good indication of that. A quote from Lee Sweeney's work, who I mentioned earlier, who has been working with WADA trying to find ways of detecting gene doping. But he says, and I'll read it out:

From my own work with the mice, I also know that [the] earlier you intervene, the better off you're going to be when you get old. So once you go down that path, I think it's unethical to withhold from someone something that would actually allow their muscles to be much healthier now and to the future. As long as there's no safety risk, I don't see why athletes should be punished because they're athletes. So I'm on the other side of the fence from Wada on this one, even though we're on the same team right now⁹⁴.

Lee Sweeney, January 2014

At the moment the direction of travel for genetics is that for it to be an effective public health intervention we need to intervene before an athlete even becomes an athlete.

These technologies, that at the moment, are within the WADA prohibited list and rejected by the sports community generally, are seen as kind of discrete doping problems, but they are part of a wider change in the circumstances of our biological condition.

A lot has happened over 20 years or so. We have now an article that covers gene doping within the WADA Code, even if our knowledge of what is taking place is limited. Over the years there have been indications of gene doping at Games but nothing confirmed. We've heard talk about specific genetic products being used at different Games; but, again, it is all very unclear. My concern is that the present strategy doesn't really address the problem I wanted to consider back in Sydney in 1999, which was to do with the way

⁹⁴ Franks T (2014) Gene doping: Sport's biggest battle?, <http://www.bbc.com/news/magazine-25687002>.

in which genetics enters the population in a much deeper sense, perhaps through germ line transfer of enhancements.

People in the world of sport, when asked this question about that germ line modification or these wider questions about society and how it uses technology will shrug their shoulders and say, well, what can we do? We have nothing to do as a sporting organisation to address this. We have to see how society changes its values and, if it does, we may respond to it. Others will talk about it as just complete nonsense, that germ line genetic engineering is just pie in the sky and akin to science fiction, and it is then also quickly dismissed. But then I'm often reminded, and have often been reminded over these years, as to how quickly these things change, how technology is taking us into new realms of capability. And year after year I have seen examples of that.

For example, this is from the TED Conference happening this week in Vancouver.

[IRON MAN TED VIDEO: <https://www.youtube.com/watch?v=RivboCTtz2I>]

Sports find themselves at a time of tremendous change in the sorts of things that people want to do with their lives. Numbers around many sports, traditional sports, are diminishing. People are inventing alternative forms of physical practice which have alternative values and relationships to this problem of anti-doping.

One of the big areas that I wasn't going to get into but just to mention it very briefly is the rise of E-sports – competitive computer game playing – which has risen in the last few years significantly. It has so many profound implications for the world of sport. I could give a whole presentation on just that. However, the key thing here is that sport is losing generations to other kinds of activities, where the approach to the questions of doping is very different. So, we need to look at these and understand really what is going on and where it leaves us with regard to the ethical dilemmas that sports face.

In that context, the second act of this talk is to mention a few examples. Just to give you a glimpse of some of these challenges that we face.

The first one I want to talk about is CRISPR, this technology that will allow a much more sophisticated approach to gene editing. CRISPR has been discussed at length in the press in the last couple of years, where there is concern that in fact that era of gene transfer for potential enhancements that was dismissed 15 years ago as pie in the sky, as not quite

here yet, is around the corner. The quotes again from scientists working in this field will say that this is easy to do, it may not be safe, but this is something that is now within our grasp. We also have projects that are changing those capacities we have as people. One of the nicest examples, I think, is North Sense. Here's a quick glimpse of it.

[LINK TO WEBSITE: see <https://cyborgnest.net/products/the-north-sense>]

Now, many nonhuman animals have a capacity to know which direction is north, and this project is giving humans this sensorial capacity, which can change the sorts of things we can do in our lives. My proposition to you is that, in fact, this describes the future of sport much more than the older problems of doping that we see played out in the world of sport today. Creating people with different functions, different capacities, will lead to the creation of different kinds of sports and we'll see how this will change that approach that we have to the doping problem.

We also have the rise of ingestible sensors. A patent was awarded for this for the first time a year ago in the US, and we now begin to see this technology being rolled out. Here is, again, a sense of how it works.

[LINK TO WEBSITE: see <http://www.proteus.com/discover/>]

This is here now. You can see how athletes might wish to use something like this to fine-tune their doping to avoid detection and so on, but you can also see how, perhaps, it can be used in a much wider sense as well.

The next one is prosthetics. Prosthetics are changing the sense of what biology can do by transforming it into artificial apparatus. We saw this around the London 2012 Games with Oscar Pistorius, who became the first person to compete in an Olympic Games with a prosthetic device. But it was really only the beginning of this and we see ourselves at the cusp of an era where prosthetic devices on both significant levels like an artificial limb, but also on nanoscale levels, can be transforming that boundary between nature and technology to the point where it makes no sense to think about these as separate things.

So, in different ways, each of these examples, I think is a problem for sport as they are not really covered by the Code – not even its catch-all article which indicates the capacity to encompass other forms of enhancements that aren't listed specifically. But the

Code fails the concern that medicine is slipping into the realm of enhancement rather than therapy, calling into question the role of medicine. Many people who work in this field coming from the medical perspective are worried this enhancement era transforms the act of providing medical care in a way that undermines it and so are pushing back against it. Yet, we exist in a world where we are increasingly comfortable with this slip and where some even argue that we have moved into a post-human era where the conventional assumptions about healthcare are no longer relevant.

I mentioned one example at breakfast this morning where, in the UK, the NHS, our National Health Care Service, is beginning to experiment with artificial intelligence as a diagnostic tool within primary care. So, you can see how these technological changes are coming. The dilemma, I think, to go back to the task I was set today, which was to talk about a current dilemma, can be articulated thus: how can anti-doping protect its social mandate, when human enhancement is allowing the general public to become more capable of performing acts of physical endeavour than the anti-doping compliant athlete?

The point at which the general public is more enhanced than the athlete is the point at which anti-doping becomes a failed project. As you will anticipate, I don't think that anti-doping can succeed, and what we will see steadily is an erosion of public interest in the unenhanced athlete and the expansion of alternative sports that will not operate by the same kinds of rules.

The answer, however, I think is found within the Code, which has a fundamental flaw within it. The Code is somewhat tautologous; it is a very self-contained set of directives and principles, self-referential in many ways. It asks the signatories to protect doping-free sport because that is the rule. It does not allow the signatories to question the rule. Even more worrisome is that within Article 18 on education, it does not seek to undertake education in any meaningful sense.

As an educator myself my role is to guide students in the pursuit of certain ideas but to allow them to arrive at their own conclusions.

Anti-doping prescribes the end point of that educative route and it is to be in the service of the Code's purpose. In my view that is far from being education.

Thank you very much.

[Questions from the floor]

DR MATTHIAS KAMBER: Thank you, Andy, for your talk.

I always enjoy your talks very much. I remember the first talks about gene doping and then we were on the brink, everybody is saying gene doping is around the corner, but I don't think so. But I'm convinced that we have to discuss this technical enhancement, these products helping people. But I think it is not a problem because we already have it in sports. We have all the sports equipment, already you have the bobsleigh, you have the Formula One cars. And so I think this direction is not such a problem. But I guess the discussion about gene doping, changing your genes, is over. I'm not sure it's coming to the sport. Because if you look at medical enhancement, medical improvement, in the last years, it didn't exist. But I agree with you that we have to discuss these enhancements with the technique, with this equipment we have. Maybe we have mixed races, as we have shown. This we have to discuss but no longer gene doping.

PROFESSOR MIAH: Wow, I can't believe you said that, Matthias, really. I'm staggered! I mean given, you know, that this is something that experts from your position say at every Olympic Games: «this is something we need to discuss». It seems it is part of – maybe it is part of – the rhetoric. Maybe I misunderstand this. Is it simply about generating a sense of the fact that WADA is doing something, we're forward thinking, we're thinking about these problems and making clear to the public that this is what we're doing? But at every year over the last 15 years people within WADA have said: «This is a problem we have to deal with». And the funding going into this from their side, but also our side of it, suggests this is a serious concern. So, I am surprised that you would say this, but I accept what you have said about the fact that gene therapy hasn't been particularly effective or successful in any medical sense, and the assumption is that until it is at least effective in a medical sense we wouldn't even dream of using it in a non-therapeutic context.

The caveat to that is there is no capacity to embrace its use within a non-therapeutic purpose because, as with other medical devices or methods or treatments, the limits of their regulation is in the precise terms of that therapeutic application. So, by implica-

tion, anything used out with those terms is considered to be unethical and unreasonable for scientists to be involved with. But the reason to put Lee Sweeney's quote up there is to show that people working within this field regard that the effective use of these next-generation therapies requires stepping back from the idea that there is something called «the natural course of ageing» and intervene much earlier in life to benefit from those interventions later in life. When you get into that, for me that is a completely radical point for many people who think that, no, we get old and we die, and that's it. We might do some fixing along the way with some medicine, but the direction of travel for the project of western medicine [PAUSE] I was going to say «is immortality», but the less radical way to put that is this ongoing pursuit of interventions. And hopefully these interventions will be safer, but they need to happen earlier in life rather than later. You don't get to 70 and then start your gene therapy to deal with the problems you face, it has to be earlier on, and that is a big shift, I think, in how people will feel about it.

Sorry, that was a long response.

PROFESSOR SANDS: One more question and then we'll break before our panel.

JEAN-PIERRE MORAND: I must say that when we are listening to you it is like an abyss is opening in front of us. My reflection was the following. Sport is one aspect of life. What you are showing is touching on many, many, many more severe and more serious aspects, including who is going to be mortal, etc., etc. Then you say the Code is a failure. But I say, looking at this, sport as a concept becomes a failure. Because sport is based on comparison of people who are more or less having an equal field, otherwise it loses completely its function and sense and a competition will be like a technical fair: which is the best matching? Which was designed the best by the best genetician then, and this is our product. There I think therefore doping becomes a detail and irrelevant in such a big, vast array of ethical problems.

PROFESSOR MIAH: I'm more optimistic.

I think that even with these technological interventions the human role in performance remains crucial and it is our task to decide which things are relevant to the test of competition and which things are not.

One of the central points of the presentation, and I was trying to draw attention to this mindful of the purpose of this event, is that there is no mechanism for that interface between sport and society within the Code itself.

Now that might be straightforward to many people. The Code is supported by governments and other organisations and their support implies a kind of assumption that this is what we want to do. But there needs to be an interface where people are able to discuss the ideology and the values behind it. And this is especially concerning when, within the Article 18 that talks about education, there is no statement about creating or nurturing critically-engaged athletes who can defend their position and understand what it is that matters to them about doping. It is entirely, I mean, for want of a better word, propagandist in how it approaches the concept of education. Without that interface within the Code, without some provision for a dialogue interface within that Code, it is destined to fail, I think. It doesn't fail, sport kind of happens and it takes place reasonably well, although we have these problems with it, but I do think the key point is that interface. At the moment the Code is pretty self-contained and it is about sport deciding what it wants to do and society accepting it. We need to look more broadly, I think.

PROFESSOR SANDS: Andy, a big thanks from the entire audience and from me. I think we take a moment to thank Andy for his very interesting and challenging outline of issues that we have faced and that we will face. Andy, thanks a lot.

PROFESSOR MIAH: Thank you.

3. Panel discussion – What can anti-doping learn from the athlete perspective?: Mr Obadele Thompson⁹⁵, Mr Johannes Eder⁹⁶ and Mr Lucas Tramèr⁹⁷

PROFESSOR SANDS: I'm now inviting our three world class athletes to come and join me on the panel. We're going to have an informal conversation on the athlete's perspective on the issues that you addressed yesterday and that we are addressing today: the policy and legal considerations in relation to regulatory efforts to limit, to control, to prevent doping, and then the arrangements for enforcing those rules, including through the dispute settlement mechanism and the CAS. The format we're going to follow is each of Obadele Thompson, Johannes Eder and Lucas Tramèr will make a couple-of-minute statement on what this issue means for them personally in the context of the sport in which they have been or are involved.

I'm going to start with Obadele. If you could just share with us, from your experience, what are the issues.

OBADELE THOMPSON: Good morning, everyone.

I must say that it's an honour to be here. I'm quite new to this side of sports law issues, anti-doping issues, but it's great to be at a conference where you see so many important stakeholders discussing issues that I think are fundamental to us getting this right.

Very briefly, I am a former Olympic athlete from Barbados. Many of you probably know Barbados mostly for Rihanna, not for sports. I competed in the 1996, 2000, 2004 Olympics. I was a medallist in the 100 meters in 2000 in Sydney. I developed an interest in issues with anti-doping, I think, very early on in my career.

I look at myself sort of as an outlier. My dad is a former university professor who was an athlete. He was a Jamaican 100 yards champion, even though he's not Jamaican, when he went to school, to university in Jamaica. From the age of 17 I've had TUEs. My mom was a nurse, my dad was very into sports. I had him, at various stages, advise me «don't

⁹⁵ Olympic medallist in athletics (100m) (Barbados) ; Associate, King & Spaulding.

⁹⁶ Olympic cross-country skier; Consultant, Institut für Verwaltungsmanagement (Austria).

⁹⁷ Olympic gold medallist in rowing (Switzerland).

go with this coach» because my dad would look at performances that certain coaches had with some athletes and he would say, «don't go around those people». So, in many ways I look at myself as being an outlier.

Even during the earlier part of my career I was really vocal about this concept of clean sports. I was the type of person who, if I wasn't ready to compete, I wouldn't even turn up at the track meet because I thought, well there's this idealism in my head that the fans are there to see me at my best, right? And if I wasn't at my best, I'm not competing, I'm not taking anyone's money. You know, this is really stupid stuff when I look back on it. But that's how I was. Then a couple of things happened during my career, especially after I won my Olympic medal, that caused me to sit back and consider what's really going on. I think that has a lot to do, again, with my father, really causing me to think about the importance of due process, the importance of people having an opportunity to be heard. I'll give you one quick example and then we can move on. In the 1996 Olympic Games we had a case where a boxer from Barbados felt cheated by the ref, and when the result came in he threw his glove at the ref. I remember we had a team meeting, and the President of our Olympic association at the time jokingly said that by the time the boxer's glove hit the ground the boxer was on a plane to Barbados. Of course everyone laughed, but there's a seriousness regarding: does the athlete really have a fair chance to be heard? Often times what happens is people forget or they minimise or overlook the fact that athletes are human beings. At the end of the day we can talk about the sanctions and everything else, but it's a human being's life. They are connected to other people. And sometimes we can focus so much on wanting to clean sport up, and wanting to do this or that, and we forget that, okay, at the end of this process is a human being: and have they had a fair chance to be heard? Is their input important?

For me, where I am, and the things that I've wrestled with, perhaps more so in the last month or so as I thought about this conference is, what's the role of the athlete? I understand CAS has been around for 30 years and WADA and the WADA Code have been around for 20 years or so, but how much input do athletes have? Because at the end of the day the lives which are most affected are the athletes' lives. Sometimes I think you don't really hear what is the athlete's input. I'll pass it on, but then hopefully we'll circle back to some things. Thanks.

JOHANNES EDER: Good morning, everyone. My name is Johannes Eder, I am from Austria, I'm a former cross-country skier, not as successful as Obadele or Lucas, but I tried to do my best in the years, stopped around 10 years ago and I just want to start with a similar point that Obadele did.

Yesterday we talked a lot about how to level the playing field. I guess from an athlete's perspective it is also important to level the playing field before Court. If you are an athlete and you have to go to Court and you have to fight against any big international federations or the IOC, you will have problems to bear all your costs. So, I guess it is important to establish, and I'm glad to see that now there is a system of legal aid established. I cannot assess how properly it works, but just taking into account that all the lawyers have to work for free within this system, I doubt that it fully levels the playing field. As I said, I cannot assess it, but it is just my guess. So, I hope that, if necessary, there are further means taken to level this playing field and to give all athletes, despite their financial capacity, a fair chance. Because, and I guess no one in this room will object, that an excellent lawyer and very good expert witnesses can make the difference in the outcome of a case. So, that's the first point I wanted to raise.

The second is that from my perspective as an athlete, if you are involved in a CAS case and the other party is an international federation or the IOC, you may doubt that the Court, the institution, is fully independent, taking into account the ties between the IOC, the international federation, and the CAS and ICAS. So, again, that's just how it feels if you have to deal with cases from an athlete's perspective.

Furthermore, I hope that all the arbitrators always keep in mind that not all the athletes who appear before a hearing panel, are cheaters. Because sometimes the unlikely can be the truth too. And what I wanted to say is that I hope that all arbitrators start the proceedings totally impartial, irrespective of the sport which is involved.

At the end I just want to support what was said yesterday, that clear rules in the Code are needed. Because from my point of view, all athletes will also seek the legal limits to maximise their performance, and so clear rules can contribute to avoid that any athlete passes beyond these limits unintentionally.

LUCAS TRAMÈR: Good morning, everyone, also from my side.

I am a Swiss rower. I was at the Olympic Games last year for the Swiss national team. I was invited to this panel about a week ago so I'm nowhere as prepared as these two guys are, I'm sorry.

I'm very honoured to be here and to talk about the doping problem in sport. I must say, I'm from an environment, from a sport, which isn't known a lot for doping problems. Rowing is traditionally, historically, a very academic sport, but it could profit from doping if you look just at the physiology. But it's quite interesting because there have been very little doping cases in the last 10 or 20 years in our sport.

I think my message today is just to address a thank you to all the people who really go into the practice of beating doping worldwide, because we athletes, we really profit from a fair environment, from a clean environment, and I have always been very, very happy, very proud to evolve in an environment where you know the other nations, the other countries you are competing against are probably clean. I always had the feeling that the people who beat us on an international level, be it at World Cups or World Championships, the boat which was quicker were clean to my eyes. That is always a good feeling when you know if you want to beat these people that the solution isn't external aids, the solution isn't doping, the solution is only you have to train more, you have to train better. If you are convinced the guys who are beating you are clean then there's only this way.

I'm also very happy because the International Rowing Federation has done a lot against doping. Last year, before the Rio Olympics, it was one of the international federations who acted a lot against doping and who banned a lot of athletes from eventually going to the Rio Olympics. Of course there is always the question was it a fair decision. Were all the athletes who were banned really confronted with doping or was it just the system in certain countries that isn't working? I think in the end it is really the system which has to change, it is not always the athlete's fault if he gets confronted to doping. As I said, in our sport where there's not a lot of money, not a lot of sponsors, not a lot of media attention, it creates an environment that's more likely to see clean athletes instead of doping.

PROFESSOR SANDS: Thank you, all three.

Just as you were talking I was in my own mind just working out from the athlete's perspective the different stages at which the interest of the athlete cuts in. The design of the rules, step one. What does the rule actually say? We heard a call for clear rules. I'm conscious also that clear rules sounds like a good thing, but a clear rule imposing on decision makers, including adjudicators an absolute duty to go one way or the another, and I found this in some of the cases in which I've sat, means you have no room for manoeuvre, and you may be faced with a grey area that is neither in the black, the white, clear direction one way or another, but you have no wriggle room as an arbitrator because the rule is absolutely clear, and that may lead to an unfairness.

The application of the rules is the second stage. At an event, when a rule actually has to be applied, how it is applied? Again, I've had cases in which the application of the process of treating a sample has become an issue in terms of whether the protocol has been absolutely precisely met, and often the rules are unclear as to what happens if a vital stage of the sealing of the container has not happened precisely as it should happen. There, too, there is wiggle room.

The third stage – one you have all touched on and mentioned – is the enforcement of the rules. When it comes to a challenge to a decision that is taken, either at the federation level or at the level of the Court of Arbitration for Sport, or if it goes beyond to a national court or a national system. So, at each of those three stages the athlete obviously has a particular interest. Now I'm wondering, Johannes, we talked a little bit last night, I wonder whether you feel able to share a little bit your own experience. Because it seems to me, if you are able to talk a little bit about it, that it threw up some really significant issues about independence. You touched on the question, and people may not have quite been clear about what it was you were saying: the need for the enforcement phase to be completely independent, both of the athletes and of the organisation, so that you feel you get fair hearing. To the extent you feel able, could you share with us your own experience?

JOHANNES EDER: Thank you.

What I wanted to say is I had a case, it was in 2008, me against the IOC. By this time, actually, there was no legal aid system established. So, I just had the luck that a lawyer

from Austria said, okay, I will do it pro bono. This was my only chance to go to CAS to have my case heard.

The second point is by that time Dr Thomas Bach was the head of the appeals division, if I am not wrong. If you are a party in a case against the IOC, you may doubt that the court is totally independent. It is just the feeling if you are party of the case.

I was banned for life from all Olympic Games for administering a saline infusion at the Olympic Games 2006, and we have seen the case of Johan Mühlegg and other guys at other Olympic Games, they are not banned from any further Olympic Games, so I just guess it was a harsh decision. For me there was no possibility to go to the Swiss Federal Tribunal or something like this, it would be beyond any financial capacity, and that was what I tried to mention before.

PROFESSOR SANDS: As I've understood, from your perspective as an athlete, and just again to give clarification, what I understand happened, was you were initially given a one-year ban in relation to that act and later in time the IOC adopted a new rule which effectively gave you a lifetime ban from the Olympics. You then appealed it to the Court of Arbitration for Sport, and the person who is involved in the choice of the arbitrators himself has a position on the organisation that has imposed, in effect, the ban on you. That raises a fundamental question of independence of the dispute settlement mechanism that needs to be put on the table.

We'll come to questions, but how would you change that? What would give you and I'll ask also Lucas just your sense from the anecdotes you've heard, do you feel the system works fairly in the round for athletes? First to Johannes. How would you change the system?

JOHANNES EDER: I don't guess that I have a solution but I just want to raise the question if it is necessary that members who are persons of the IOC still have to be members of ICAS, if this is a necessary tie between these two organisations, and also between ICAS and other international federations, or if there is any way to make the CAS still more independent. I guess what was criticised by the audience, is that Thomas Bach was not directly involved in deciding who will be the chair, because I guess they had to step down when the IOC was involved, but I guess, if I'm not wrong, he was the President of the

Appeals Division at this time. I don't say that the Court is not independent. I just say it gives you the *feeling* if you are a party of the case. It's just what I experienced.

PROFESSOR SANDS: Lucas, do you have any observations from your own experience in your respective world of how the system has functioned in the world well, you can talk about athletics, there has been a lot, obviously, in rowing there has been much less.

LUCAS TRAMÈR: What I see from a Swiss perspective is the system in Switzerland is working very well. We're lucky enough to have an anti-doping federation which is working well, which is doing a good job. In my eyes there's a lot of improvement to be done in other countries. When I see what the influence is on our private lives, when we have to always say where we are, our whereabouts, and we can be controlled 12 hours a day. I've been controlled, for example, at 6 o'clock in the morning when I had an exam at university at 8 o'clock. It is stressful. You never know when they're going to come. And when I see how this is handled in other countries, where it's much more lax, the rules are much easier, I think there should be a global commitment, a worldwide commitment, on this idea on how it's handled, so that every country has the same system. In my eyes this is one of the big problems of anti-doping worldwide.

OBADELE THOMPSON: From my perspective, one of the concerns that I have is about the idea of consent and are athletes really consenting to this form of dispute resolution. We, as athletes, often get into our respective sport's systems and somehow it's imputed that we consent, in many cases, to ultimately resolve things through arbitration.

From my experience, so this is anecdotal, I remember being at three Olympic Games and signing the contract the IOC requires all athletes to sign before competing at the Games, but the reality is, I'm there already. I sign whatever agreement they put in front of me. God forbid I didn't sign it, because if I didn't sign it and therefore didn't compete, everyone would probably say I'm a doper, even though that wasn't the case. I'm pretty sure it's not informed consent, and the concern that I have is that if you want to impute consent, then you have to ensure that everything else lines up.

I now do international arbitration at King and Spalding and presently I am on secondment to the London Court of International Arbitration as a counsel. One of the first issues that we examine when we receive a request for arbitration is: who are the parties? Is there an agreement? If you are not a named party or someone lists a party that's not

named to the agreement in the Request for Arbitration, we ask the claimant to please explain. I'm not sure if athletes even understand what they're getting into. By the time an athlete figures out what has really happened, he or she, I think, is so far down the road with their back against the wall. And by then I think the options available to the athlete are significantly limited in terms of who may represent them, including experts. So, even if the system is not biased in operation, there may be concerns regarding the system's appearance. I think a better job needs to be done in regards to ensuring that there is a level of independence or separation. So, that on the front end you say, well, okay, we need to somehow impute consent because for the whole anti-doping system to work we need to be able to bring alleged violators into the arbitration process, but then on the other side greater efforts have to be made to ensure that there is independence.

PROFESSOR SANDS: One of the themes that we keep coming back to, of course, is this issue of independence. Johannes, you've told your story. One of the issues that, of course, an institution like the CAS faces, is that it is supported by sports federations, who contribute to the cost of its functioning. That at least creates, to take Oba's point, a perception that gives rise to an independence issue.

The very first case I ever sat in on the CAS wasn't a doping case, it involved FIFA. And I had the remarkable experience, as a novel arbitrator, of having Mr Blatter appear as a witness before me in the CAS building. He was on video, but the hearing took place in the CAS office. Of course I was acutely aware as an arbitrator that FIFA was supporting the institution of the CAS. So, coming from the world of arbitration outside of sport, in which I function, that could give rise to a perception issue. So, there is something there, I think, that needs to be addressed. It is a common theme that we are hearing. I wonder if this is a moment to throw it open. You have an opportunity now of three remarkable athletes who can respond to your questions and the particular perceptions that you have following this introductory exchange. So, over to you, the audience, now to throw your questions.

SEAN COTTRELL: I'm Sean Cottrell from LawinSport. Thank you for your perspectives. I wondered if each of you could just explain what your involvement has been in the anti-doping movement throughout your careers. At what point did you have any input

into, for example, disciplinary procedures, rules being made, how the administration was followed? I would be curious given that you have all been affected in some way.

JOHANNES EDER: I guess I already tried to explain that I was involved in two cases in front of CAS in relation to the 2006 Olympic Games. So, that was---

SEAN COTTRELL: Sorry, I meant in terms of structurally, institutionally, at what point did you have any input into the rules and how they are applied to the processes? An athlete as a stakeholder. An athlete being 50% of the stakeholders, at what point did you have any input?

PROFESSOR SANDS: Were you ever asked for input into the design of the rules, the application of the rules, the enforcement of the rules?

JOHANNES EDER: No.

But can I add something? I guess at least in my surrounding there was less expertise about the CAS Code, this was the WADA Code of 2003, how it shall be interpreted from a scientific perspective and also from a legal perspective. Of course the athlete has the liability to follow the rules, but actually he needs some support. And this is a duty, I guess, from all national federations to provide this support. That's it.

OBADELE THOMPSON: Regarding rule-making and such, I've never been involved in that process. As I have done more research, I think that this aspect has become more troublesome to me. As I mentioned in my introductory comments, I feel athletes have actually contributed little to the development of the rules. And because it affects our lives so much, I think that we need to have a bigger say.

Look at the models, for example, in major league sports in the United States where there's collective bargaining. I've come to the opinion that unless there is some level of collective bargaining, with real boycott power, then you're not really going to get a robust athletes' perspective.

Really quickly, I think it is also important to understand how athletes make decisions. An athlete often is presented with a particular decision matrix, from which he or she makes rational decisions. So, for instance, I'm not an apologist for doping by any means, but I have long felt, and this is probably going back 15 or so years, that if you

remove, in athletics for sure, 10 people from athletics, it would change the whole sport.

We're talking managers, coaches and those intermediary people, who I guess we call athlete support personnel, right?

And I give this analogy. A lot of time athletes, at least in track and fields or athletics, come into the sport and they are young people. You call them «professionals», but there's a distinction between professional athletes and professional lawyers, accountants, doctors. A person is a professional athlete only because someone else considers him or her to have a value in the market whereby they pay that person. But there's no specific training, no specific exams that they take. If a team or sponsor doesn't pay for you to play your sport, you slip from being a professional into being an amateur. You can't unilaterally will yourself and make yourself a professional. And I think there has to be an understanding that athletes are very dependent on other people. We don't just independently run our business.

I have a good friend, an Olympic champion, whose dad told me at the beginning of my career: «Oba», that's what people call me, «your body is your business. You need to take care of your business». Well, I relied on tons of people to run my business. As a 20, 21 year old coming into the professional side of my sport, I had an agent. And one of the reasons why I chose that agent is because of how he framed certain important things to me. He said: «Look at my clients». At the time he was the most powerful agent in athletics. And that's how it often goes.

So, you come across situations with coaches. Coaches frame certain things in certain ways. I have another friend that's a former athlete, who confessed to me years after the incident about sustaining a career-ending injury, and his medical staff saying to him: «You're near the end of your career. You have two more years or three more years in your contract. You have this injury. You can do it all natural, where this could be the end of it, or you can take growth hormone». And I remember when my friend told me this, years after, I was taken aback because I knew the type of person he was. But for him it was a rational decision because, on one side, if he doesn't do it he'll probably lose his contract because there are all these reduction clauses if he cannot compete or achieve specific performance standards; on the other side, he may get caught but he

also might not get caught, and if he doesn't get caught, he at least has his contract for a couple more years and he can figure out what he's going to do with his life.

Basically what I'm saying is that the understanding of how athletes make decisions, it's not something everyone knows. Sometimes you're told in the press about «good and evil», «good and evil». And a lot of times as athletes within the sport, we don't even view each other as «good» and «evil». It's not this dichotomy of this or that. As athletes in the same sport, you often end up going on the same planes. You end up rooming with people, even competitors. You end up in so many situations together. And I think, even above that, I've come to the conclusion that for the most part the public doesn't even care. I think the public cares when the person that they support or their team is on the losing side because of doping.

I've thought about this a lot. And this is not the opinion that I had when I was an athlete, it's an evolved opinion. Sports is entertainment. You know, the IOC and all these sports governing bodies, they're selling entertainment packages. That's what it is. It competes with other forms of entertainment.

If you want to see how people think a lot of times just look at the highest-grossing movies of all times globally. They are all fiction. I can't tell you how many times people tell me: I was there for «this» event at a major championship. They don't care if it's real or not, they just want to be there to say that «I experienced it» so they can go back and tell others their story of being there. People come to me and ask me, «Do you think this is real?» And if I hesitate, they say: «Don't tell me», because they just want to watch. And often we hear about this whole concept of: Well, we'll protect the clean athletes. It's great, but what's the input of the clean athletes?

PROFESSOR SANDS: On that question, let's let Lucas have a say.

OBADELE THOMPSON: Sorry!

LUCAS TRAMÈR: One point I would like to add is anti-doping prevention.

We talk a lot about going to the task and catching the cheaters, but I think sports is a life lesson, and people who start with sports, young athletes, they start and they learn a lot from training, from training in a team and having a team around them. I think I learned a lot in my life from sport, how you dedicate yourself to something, and I think

it is a shame that there isn't a lot of energy put into prevention from doping, from really telling the athletes what are the risks, actually what sport is all about. Because when you're an Olympic athlete, often you're in a tunnel, you don't see what's left and right, you only see your goals. And I think if we can concentrate a bit more on the younger athletes and keeping their eyes open to the bigger world and not only to their results, I think that could help a lot with the evolution of the athletes in the next years and less athletes would want to dope because they see the bigger picture.

In my career I've never been confronted with anti-doping prevention. Never ever has anybody told me what is doping, what are the risks, how could you take doping without knowing, what does your coach have to know about it.

I mean it was always a bit taboo. Never anybody talked about doping to me. I think if we open this discussion a bit more with the athletes, with the coaches, and really know what this is all about, I think this could help preventing it instead of catching the cheaters when they've already taken the stuff.

PROFESSOR SANDS: Thank you, all three.

We have time for more questions. These are remarkable interventions. I'm extremely grateful to all three of you for speaking very openly. We're under what, in London, we call the Chatham House Rule here, which is essentially a conversation amongst friends to just tease out, in the interests of the system as a whole that we all care about, ways to improve ourselves. That's the spirit, I think, in which we're taking this very, very helpful conversation.

DR MATTHIAS KAMBER: Thank you very much for this great discussion.

I will come back to what Lucas is telling about why are certain sports more touched by doping than others. You said more from academics or higher education, less money involved, and so on, but there are other sports like this as well. For instance, cross-country skiing, there is not so much money involved as well. But still when EPO came up in 1990, cycling and then cross-country was hugely taken by this.

You also said about education. You're correct, we have now a big programme with different federations, but our own federation in Switzerland never came to us for such. We

have things we can do, but until now we have not established a relation with the rowing federation.

I guess it is very correct to have this education, but how do we focus then on which sport is at risk as an anti-doping organisation? We have tested you, but you have a low risk, according to you, but still you won a gold medal. You are a role model. So, we have to prove that you are clean.

I really don't know how can we dispute our controls to sport which are more affected and to others not, and why are certain sports more affected than others? I don't know.

PROFESSOR SANDS: Let's carry on with another question at the back and let's put the two questions together. There was someone else at the back.

STEVEN TEITLER: My name is Steven Teitler, I work as legal counsel for the National Anti-Doping Agency of the Netherlands. About the point of prevention: in the Netherlands we've developed a whereabouts app, a prevention app, we're going to launch a supplement app, we do e-learning. That's all the kind of stuff we offer. Now, I see two signs of a problem. There are some doping organisations that don't offer prevention, but, also, when doping organisations do offer prevention, when we organise meetings where athletes can show up and we have prevention people explaining to them, no one shows up. So, prevention is important, and I have been doing this a long time, I've heard it over and over again, but sometimes there is no prevention and sometimes there is no interest.

So, my question to you athletes is what can we do to, in situations where there actually is prevention, that we can bring it to the athletes? Of course it's easy when the athletes are included in a registered testing pool because then we know who they are, we have their contact info because they have to provide whereabouts, so we can send them the stuff even physically or through email. But what can we do, in your view, to bring it to lower levels? How can we make prevention interesting for athletes who have not maybe reached that elite level where they are automatically exposed to prevention? What can you give us as ideas to distribute the prevention tools that we have better?

Thank you.

JOHANNES EDER: I guess the national federations are crucial. In the way cross-country skiing is organised, you fully depend on the Federation, you have no choice to participate for someone else, for another team or something like that. So, you fully depend on how your support and personnel works out the whole issue, which knowledge they have, what they can tell you, what they can teach you and how their mind-set is about the whole doping issue. From my perspective the national federations are crucial also to reach all the athletes.

LUCAS TRAMÈR: That was exactly what I was going to say. We athletes, we always are in touch with our national federation but we don't really have contact with the Anti-Doping Agency.

We see them when they come to our home and they come and control us, but we don't really know the background. We don't know what they do. We don't know how the whole process works, especially if we're young athletes and we start the whole process.

When I had the first doping control of my life I had no idea what was coming up. I had never done this before, never had anybody tell me how it was going to be like, what were my rights, what I had to do. So, I think this whole process of education has to start early, already in teenager age, and it has to come from the federations, because the federations are responsible for the athletes. They have to secure this education for the younger athletes because, as I said, the Anti-Doping Agency isn't really in contact with these younger athletes.

OBADELE THOMPSON: I agree. Education, I think, is such a huge component. Sometimes the focus is on punishment as a primary deterrent or behaviour-shaper. I really think that behaviour shaping has been so much on the punitive side. You say, okay, four years or two years suspension or whatever, and as I go back to my earlier points about athletes' rational choices, there are cases where people may be able to make more money in one year cheating than they could otherwise. So, what are you going to do in that situation?

But something that I have thought about is perhaps doing educational certificates. So, if an athlete is going to get funding, they go through a programme where it is mandatory that they take a course, an online course or something, where after they pass that course they can get the funding and make national teams. So, at least you are making them

more aware of the issues and therefore, I think, it becomes more reasonable to say, okay, well, you knew about these things, you were educated on these things, okay, we'll hold you accountable to this stuff.

Also, getting back to one point about role models. I wrestle with this because I grew up with my dad instilling in me I was a role model. But I wonder, why are athletes almost held to this superhuman standard? As an athlete, I was given higher-than-normal physiological gifts, but that doesn't imbue me with any type of higher sense of morality. That is shaped by circumstances and my environment and those types of things. So, why, somehow, are athletes held to sometimes even higher levels than the people who govern the sport? So, I'm not sure I'm very comfortable with athletes being automatically deemed role models. I get that we represent a country and things like that, but why should I be a role model?

PROFESSOR SANDS: Let's have one last question from someone who hasn't had a question yet.

MARIO VIGNA: I'm Mario Vigna, I'm deputy chief prosecutor of the Italian NADO. My question is for you, Johannes.

I fully understand your perspective about the notion of independence of the hearing bodies, but it seems that you consider athletes as a category not having any influence or power within the framework of sports institutions. Don't you think that when a disciplinary action starts for doping or corruption or bribery – it was mentioned the case of Mr Blatter, for instance – this institution is not acting necessarily against someone but also in favour of clean athletes. So, my opinion, isn't the role of athletes in sports governing bodies in general to be improved in order to increase the feeling of confidence and trust in the independence?

JOHANNES EDER: So, don't get me wrong. I guess that most of the athletes who will be in court have tried to do something to improve their performance. I guess that's the majority. I just wanted to say that there may be some cases, and we always have to be aware of the fact, that sometimes it may be more complicated than it seems. That's the first thing I wanted to add to this.

The second is, actually, in reality, if you're not a superstar of your Federation, you really have very, very little influence with whom you train. You can't choose your trainer. It is different in athletics, I guess, but if I want to stick with the Austrian Skiing Federation I have to take the support personnel they have hired. So, athletes have very little influence.

I guess we always see these famous cases of Sharapova, Lance Armstrong. They can create a system. If you are within a Federation and you are at the beginning of the career or you are not that successful, you have little influence or let's say no influence on with whom you will train or what and which support staff will be hired.

PROFESSOR SANDS: I fear we have run out of time and we have to keep moving along.

I must say I found this conversation incredibly interesting. I kept a note of all the different issues that have come up.

Prevention has come up as a major theme. How to enhance the role or the involvement of athletes across the board in that early first phase, including at a very young stage. But our colleague from the Netherlands has explained when you try, often people don't turn up. That has struck with me.

Not a level playing field. I have seen this for myself. You get a superstar athlete turn up in front of you at the CAS and they will come with an array of first-class lawyers and first-class experts, but the athlete who is more junior or less of a global star, who may have as pressing an issue, of course, does not have the resources. And that, frankly, makes a difference in a process. Because what is put before you as a CAS arbitrator has an impact on how you perceive an issue, as in any case. I'm not saying anything that's different.

National federations. I have seen that for myself. I absolutely endorse what is said. It is not a level playing field. There are some national federations that are extraordinarily diligent and there are others that are the opposite of extraordinarily diligent. And you see that and you have to take that into account when you are arbitrating these cases. And you see some remarkable things occasionally, experiences. And I think it is not just the national federations that become important. One of the common themes across all cases is the role of a medical practitioner at some point in the chain. And one of the

things that has always struck me is why aren't the national medical associations more actively involved in this entire process and in this entire project? I say that against the background of a number of cases and situations which I have observed in which a medical practitioner is hit with some sort of sports-related restriction or ban, and one would expect the national medical federation to come in and say that person needs to be subject to our disciplinary process also, and absolutely nothing happens. That is a very dispiriting thing to see, I have to say.

Then the issue of independence. Which is a complex issue. No one is saying that by involvement in a particular appeals' board a person is not acting independently, that is not what is being said. It is all about perception. Oba, you've explained how, in other forms of arbitration and dispute settlement the test is «Would a reasonable person perceive that there is a problem?». I think it is fair to say that in many instances a reasonable, independent observer, the man or woman on a Clapham omnibus in London, would see that there is a problem in how the dispute settlement mechanism is structured. I'm not making this as a criticism of what has happened. We are where we are. But I think we can learn from a constant state of improvement.

In that regard I have to say that one thing that CAS has done, which is totally different from other institutions, I do mainly CAS cases and investor state arbitration cases, the same kind of cases that you do [to Obadele Thompson] in these investor state arbitration cases, it is a revolving door between the arbitrator and the counsel. You can wear both hats. I have long argued that the rest of the world should follow the CAS in saying you cannot do both, you have to choose, because of a perception problem if you do both. That, I think, is one area where CAS and the sports world has really taken a leadership role. I think if that can be taken forward and further reflection on some of these other issues that have been addressed, I think the system will continue to enhance and improve itself.

But I stop there. We have had three very genuine and wonderful contributions from our three athletes, and on behalf of all of us I would like to thank them deeply for speaking so openly.

Thank you so much.

4. Psychological aspects of anti-doping – The decision to dope and the impact of getting caught: Dr Mattia Piffaretti⁹⁸

PROFESSOR SANDS: Ladies and gentlemen, we carry on.

We are now turning to the vital issue of psychology. Any person involved in the world of sports and sports law knows that psychology is absolutely at the heart of every aspect, from the setting of the rules to their enforcement and everything in between, including the performance of the athletes. So, I am delighted to introduce Dr Mattia Piffaretti, who is the founder of AC&T Sport Consulting.

Mattia, the floor is yours.

DR PIFFARETTI: Thank you, ladies and gentlemen. I'm delighted and honoured to be part of this impressive panel of people. I'm aware that I might be the only psychologist in the room.

I really want to thank Antonio for getting me involved in this event.

I have been working with athletes, and not only athletes, for about 20 years now.

I founded this practice of mine, AC&T Sport Consulting, back in 1997. For those 20 years mainly I've been confronted with the fears, with the uncertainties, with the challenges, that athletes go through when they're directed towards achieving their ambitions and their goals: to enhance their performance, to win the competition, and also to overcome all of those barriers that very often come into their path towards achieving those goals. Obstacles like injury or deselection or fatigue or social and economic disadvantage. The topic of doping, I think, is very central to this aspect as well.

Very soon in my career, not only as a basketball player, during which I had the opportunity to experience anti-doping controls myself, but mainly as a sports psychologist, I have come to realise that doping and substance abuse at large are kind of an appealing shortcut for many athletes who were trying to find solutions to cope with

⁹⁸ Founder, AC&T Sport Consulting; Director of the WINDOP Project. EDITORS' NOTE: Dr Piffaretti's presentation during the Summit was cut short due to time constraints: the following section was supplemented so that the complete presentation could be included.

stress, deal with the psychological challenges of their careers and satisfy their ambitions.

As a psychologist, I have always committed myself to help athletes rely on their inner resources and develop themselves as clean performers, instead of counting on external illicit aids.

Today I would like to give an insight coming from my perspective as a sports psychologist, who is interested in contributing to the fight against doping by involving the athlete's perspective. I'm really glad to have heard the panel of athletes before. I think today in our fight against doping it is important to involve more and more athletes at various levels of the anti-doping process.

The topic of today is to explore the decision to dope. It is a rational decision, as Obadele Thompson pointed out. Yet it is not always a rational decision, sometimes it is irrational. Also, another aspect that I really found interesting in my work is to describe the impact for athletes when they get caught. In other words, when they live and experience the sanction, what is it that happens to their lives? I soon realised, by looking at the literature, that it is an aspect that is totally overlooked. I think we all have to learn from that also, in order to feed in prevention, an aspect about the fight against doping that seems to be more and more important.

Prevention with young people, with young athletes.

But first of all, let me tell you how I first decided to specify my interest in doping.

The starting point was this.

[indicating two photographs, the first showing four athletes displaying the Olympic gold medals hanging around their necks, and the second showing a rugby player]

These athletes have something in common, at least some of those. There's one athlete in the picture on the left who some of you might recognise and know. His name was Antonio Pettigrew, and he was found dead after committing suicide at the age of 42 after having been banned and stripped of his gold medal in Sydney in the 400 meters relay.

The second picture portrays an athlete coming from a different background, as a matter of fact, a rugby player. Terry Newton was his name. Likewise he was found dead. Terry Newton was serving a two-year suspension, becoming the first English sportsman to test positive for human growth hormone. That was in the early 2010 years.

Those events in the news really touched me deeply because what they were revealing was the lack of support and the absence of a program to accompany, tailor, suit, and monitor what is going on for an athlete being caught and sustaining a ban, be it for one year, two years or four years, and the extent to which these athletes are undergoing psychological breakdowns and possibly also, in those two extreme cases, commit suicide. Of course this is certainly not the intention of the current anti-doping regulation and policy, to come to these extreme consequences. By sanctioning athletes, anti-doping authorities really hope they can contribute to clean sports. They want to change athletes' intentions to use substances by using a principle that is very well known in psychology which is deterring, through fear and sanction. We all know that is effective to a certain extent, but we are also conscious and aware that it is not a long-term solution to really make sport a cleaner place.

My intent today is to show the sport psychology perspective can contribute to the fight against doping by changing the paradigm on which we have based our current policy, and doing that not by only creating respect for the rules and fear of sanction, but by creating inner psychological changes in the athletic community, by having athletes adhere to this anti-doping fight.

It is kind of a mutation also in terms of the psychological paradigm that we're going to use. As you know, psychology has a long tradition and theories for bringing about behavioural change. If we want someone to give up doping we are working on behavioural change.

At the beginning of scientific psychology, the main model that was applied was behavioural: change could be triggered through reinforcement, either a positive reinforcement (if it's a desired behaviour and we want to maintain it in people) or negative reinforcement

if we want the behaviour to be abandoned (like in the case of anti-doping sanctions). That's what we technically call <an operant conditioning>⁹⁹.

So, if we want a desired behaviour, we want to reward it. If we want the behaviour to be abandoned, and that is the case for doping, well, we are giving negative reinforcement through sanction, hoping that this will change people's behaviour.

Since then we have also understood in scientific psychology that conditioning can be efficient for a short period of time, sure, but as soon as time passes and as soon as the strength and the meaningfulness of the reinforcements, be they positive or negative, weaken, the undesired behaviour may reappear. That's basically why people change, to avoid being sanctioned and not because they change internally.

I believe that current anti-doping policy is based on the old paradigm. My invitation through this presentation of mine is to really encourage anti-doping policy to be based on a more updated psychological research-based model that explains human behaviour and behavioural change not only through reward and sanction but through the fact that human behaviour is also influenced by cognitive, emotional, social, and relational aspects of the human being.

According to this new paradigm, change occurs in people when people feel empowered, when they feel they are part of the process, they are part of the programme, they have been heard, and they have been given a voice. Also, change occurs in people who intrinsically adhere to the new behaviour because they feel responsible and valued for their own worth. Despite the mistake or error that they might have done, in this case, of course, according to the violation of the anti-doping rule.

I think that criminal law has already understood this principle by introducing, when someone commits a crime and the person is in prison, measures to help those people reconstruct themselves. Social rehabilitation measures, psychological rehabilitation measures and spiritual rehabilitation measures are systematically used now to help people to be reintegrated in and contribute to society.

⁹⁹ Skinner B F (1948) <Superstition> in the pigeon. *Journal of Experimental Psychology* 38: 168-172.

So, what is it in sport that nowadays prevents us from adopting this similar view and from using sanctions not only to get rid of the truants, but mainly as an opportunity to enrich sport by having those very athletes contribute to a cleaner sport through their experience, through what they really internally experienced?

My presentation is really based on this assumption. Giving a voice to athletes I think is key to finding new ways to enrich the anti-doping fight. That's on this core motivation that I created some years ago a program, the name of which is WINDOP. WINDOP is a complete support of the denounced athletes for violation of anti-doping regulations. And how it practically works is that athletes who are sanctioned can benefit from support. That's the first phase, what is called «*WINDOP Classic*».

This support helps the individual sanctioned athletes to gain understanding and awareness of the reasons for their behaviour. Why did they take their decision? What is it that triggered that decision? What was the mental attitude that they had at the time that pushed them to go in that direction? At the same time, WINDOP Classic also wants to give athletes the opportunity to develop tools for personal rehabilitation, be it on occupational level, sporting level, personal psychological level and social level as well.

The second objective of WINDOP is to integrate those athletes in the prevention campaigns. The very people who went through the process of being sanctioned for an anti-doping rule violation come and talk to the young athletes, and really feed in the prevention process. This part of the programme is called WINDOP junior.

Then there's a third component to the program, called WINDOP watch, which aims at providing event organisers and sports federations with a guarantee that the athlete who has committed this violation of the anti-doping code has followed a programme, has understood the implications of that. The risk of relapse is therefore reduced.

The whole program started off as a research project, back in 2010/2011, supported by WADA. The idea was to interview 11 sanctioned athletes to obtain knowledge about the psychological determinants of the anti-doping Code violation. So, basically, we were interested in finding the reasons underlying that decision: more specifically the personal, psychological, and finally, social reasons.

The second objective was to have a better grasp of how athletes experience the ban period. That is a critical issue, because when we send athletes for a ban for two years, are we sure that these two years are useful for the athlete to come back to sports with a new attitude? Are we sure that their relapse risk has been reduced? No data was present at that moment. That work would really help us to throw some light and give us new insight on this specific subject. To answer those questions, we planned to look at the scientific literature, especially on the first aspect; because on the second aspect, namely the experience of the sanction, there was no literature at all. Some literature about similar experiences exists, but linked to other domains, like the prisoners' experience of sanction, but not directly in the sporting domain and more specifically linked with the topic of doping.

So, what came out of the first question?

The literature review allows us to pinpoint a series of predisposing psychological and normative factors, such as the willingness to win at all costs and the extrinsic motivation¹⁰⁰. We have some interesting overviews and studies showing that if athletes were guaranteed they would not be caught by controls, they would agree to use banned substance. The extrinsic motivation turns out to be an encouraging factor to make use of prohibited substances to enhance performance¹⁰¹.

The next aspect is an interesting one. These authors¹⁰² all underlined the fact that in the world of sports there seems to be a shift of norms and what appears to be a kind of unwanted, undesired behaviour in society at large, within the world of sport suddenly may be perceived as normal. Some of us have already identified the role of culture within the sports environment, the role of the entourage. Of course when athletes bathe in this kind of entourage, their perception of what is right or wrong totally shifts, and that's what we call also the phenomenon of positive deviance. Athletes do not always

¹⁰⁰ See e.g., Ehrnborg C, Rosén T (2009) The psychology behind doping in sport. *Growth Hormone & IGF research* 19(4): 285-287.

¹⁰¹ See e.g., Bamberger M, Yaeger D (1997) Over the edge. *Sports Illustrated* 86: 62-70.

¹⁰² Becker HS (1985) *Outsiders*. Paris: Métailié. Laure P (1995) Echeveau motivationnel au dopage: enquête auprès de 512 sportifs. *Médecine du sport* 69(2): 43-47; and Brissonneau C, Aubel O, Ohl F (2008) *L'épreuve du dopage : Sociologie du cyclisme professionnel*. Paris: PUF.

have the perception that they're doing a wrong thing by doping. They believe they are being very professional. They believe they are doing what the job is and, of course, to respond then to the expectations that are placed on them by the federation, by their team, by all the environment around them.

The sports culture more and more seems to play a role, also, as a triggering factor of the decision to dope or not to dope. Which, of course, does not mean that the athlete is only a victim. Fortunately enough, athletes are free men and women. That's exactly what the sports psychologist is supposed to do, provide those athletes with the skills to be aware of those influences and make conscious decisions not to undergo such pressures from the outside, which is, of course, a very, very big challenge.

Through the application of the WINDOP Classic program we were also able to gather some additional intelligence on predisposing factors. Some of them were colliding or were kind of reflecting what the literature was saying and some others were interesting. What we proposed to those 11 athletes, was a psychological assessment to assist the athlete in the understanding of his or her psychological dependence from the environment, from the willingness to achieve success in sport.

There was also an important part which was the career orientation program. What's the place of sport in these people's lives? How significant is sporting success as a possibility for those athletes to have a future if they don't have any other solution in the working area?

The other aspect which was important to give through this program is information about physical and nutritional preparation, and that was performed with the cooperation of the University of Lausanne.

Basically what came out of the interviews and the contact with those athletes was that for most of the athletes one of the common factors was a big uncertainty in their sport transition. Most of these athletes were undergoing a career transition, be it coming out of an injury or trying to be selected to the Olympics or trying to make the step to the level above them. Of course in that phase athletes undergo a very special emotional state of uncertainty and fear of failure. That proves to be a moment of fragility in the decision-making for athletes about doping or not.

This is one quote from one of the interviewed athletes, saying: «*I strive to be as professional as possible. It's my job. And if I see that I am not recovering well, I will do all I can to recover*».

So, you see how fragile at some point, because of those motivations, because of those perceived pressures in this transitional period, athletes can become. It is a human factor and the human factor is really the core focus of the WINDOP perspective.

What about motivations? Also motivation was an interesting aspect to look at. 69% of the motivations that were mentioned are outcome-oriented, which makes sense in a world of sports which is very outcome-oriented. Most of the athletes believe it is their results that count the most to them and it is their results that count the most to their sporting environment. Basically, athletes do not feel they count as a person in general, but they just count as a product, as a product of results.

This is a quote that clearly illustrates this point: «*It was the only thing that I was good at and it was very important for me that everybody was recognising me as an athlete more than as a person. And as an athlete you must bring results*».

It was as simple as that. But that perception, of course, creates the fertile ground then for deviant behaviour, because the athlete really feels that athletic identity is the most important thing for him or for her.

What about the blurred perception of norms in the sporting environment? Something that the literature has shown clearly and was also corroborated by the data we picked on those 11 athletes. Five types of perception corroborate this aspect:

- The hypocrisy concerning doping in the sports world. Many athletes felt it's a hypocritical world, where things are not clearly expressed as they really are.
- Ambiguity in the anti-doping rules. That also puts the accent on something that was already mentioned in the athletes' panel before, namely the lack of clarity on the usefulness of doping.
- Social modelling in lack of fair play and possibly substance abuse. In other words, athletes perceive that their world is not a world based on sportspersonship or fair play. These values are absent. So, how can you find models in that

behaviour? You just have models in the opposed aspect. This lack of positive models makes it very hard for young athletes to learn positive behaviours if the environment is not applying and implementing those behaviours.

- Besides, we can observe the normalisation of deviant conduct. Normalisation through the effect, of course, also, of the environment. It is normal. You have to do it.

That's another quote from a cyclist: «*Personally I had a tendency to be cooperative with my opponents when they had a chance to win. But when I saw that everyone was acting for their own interest, I stopped being cooperative*».

The athlete becomes aware that his own ethical sense, of sportsmanship, of fair play is undermined by the fact that nobody is applying it around him, so why should he be the dumb one to do that.

What about a summing up of the data here about the unhealthy psychological attitudes that underpin these kind of behaviours, anti-doping or violating the anti-doping code? The main factors are the uncertainty in sport transition, the stress and performance pressure, the lack of self-confidence in athletes (they believe they cannot make it, they are not strong enough in front of the system), the blurred perception of norms and the lack of sportsmanship. We haven't mentioned another important aspect, which is the very easy access to substances nowadays through Internet and everything and the normalisation of this practice.

What about the second issue which was less well known in the literature?

To date, no scientific literature has focused on the personal experiences of athletes at the moment they received a sanction and during the whole period that they are banned, which, in our sample, lasted from 1 to 4 years. Understanding how athletes perceive their sanction, how they feel during the ban and the strategies they develop (or not) to cope with it can provide precious clues on how to strengthen anti-doping prevention by:

- Protecting and fostering the athletes' mental health during the ban period
- Maximising strategies of self-rehabilitation, allowing athletes to diminish their risk of relapse with doping behaviours

- Integrating sanctioned athletes as positive examples in prevention campaigns for young people involved in sports

We had a particular interest in that one, when talking with those athletes, of course you can imagine how traumatic such an experience can be for an athlete, to learn and to get the sanction that for the next two to four years they are not going to compete or to train, because they are all of a sudden thrown out of the whole system with no kind of support whatsoever. You can imagine what it means: the whole world crumbles down.

Athletes generally perceived that there is no consideration of factual human circumstances to their sanction. In the athletes' perspective anti-doping authorities do not seem to care or be interested in how it happened, what the circumstances were. Just hearing that, just taking that into consideration, doesn't mean that the sanction should be revised for that, but just having an ear for that is an important aspect for the athlete. That is still totally lacking.

The lack of support from the official structures, federations. All of these athletes felt they were alone, left alone in that. Most of the athletes (63.6%) underline they were fortunate to count on their *family and close friends*.

Besides, psychological support is recognised by all athletes as a fundamental measure, to be provided by people with knowledge about the psychology of sports, to help athletes in their psychological, occupational and physical recovery. As a matter of fact, evidence shows that athletes undergo a series of strong emotional reactions during the whole sanction process: the most frequently mentioned were anger (reported by 72.7% of the sample), sadness (36.4%), and disappointment (27.3%). Other emotions that were mentioned were hope, denial, confusion, existential fear, regret, incomprehension, guilt for the athletes' environment, loss of self-esteem, and frustration.

By gathering the different testimonies, athletes are in general able to identify 3 stages, the duration of which depends on their own personalities and the context of their code violation. The first 'acute' phase is often characterised by confusion and a great difficulty of coming to terms with the reality of the ban. Athletes often report they cannot believe what is happening, and that the emotional experience is particularly distressing because they may be entertaining some hopes or rather are in denial of their situation. It is interesting to notice that many of them report anger as the dominant emotion,

probably in an unconscious attempt to get rid of any responsibility and to perceive that the problems come from the external realm.

The second phase corresponds to the period that usually takes place from a couple of weeks to 3 months after the sanction, which is characterised by the athlete's confrontation with the bleak reality of the ban. This is when athletes display the strongest emotional reactions and seem to be more vulnerable in relation to any possible act of self-harm. When reading their testimonies, it is not too far-fetched to suppose that the association of anger, sadness and other negative internal states might lead to fatal consequences for some athletes in the acute emotional phases of their sanction. The recent suicide cases of sanctioned athletes that have been reported in the media unfortunately corroborate this possibility.

A third and final phase is then reported almost unanimously, characterised by a progressive decrease of the distressing emotional states and a psychological and practical re-organisation of the athlete's life. For some athletes though, bitterness or other negative feelings linger on still many months later, making it hard to really re-organise their life after the doping ban and truly make sense of the sanction.

By getting the support by WINDOP, athletes were able to recognise the benefits and take advantage of the ban as a period of personal understanding and reconstruction. By acknowledging their personal psychological strength (experience makes them stronger and closer to their own true self), their better knowledge about doping risks, their increased awareness about the environment's role, and their overall enhanced self-esteem (athletes recognise a wider identity differentiation that makes them feel able to reconstruct themselves in the sports realm or in other professional domains), athletes develop a strong basis for reduced relapse risk.

Here are some athletes' quotes to illustrate those inner changes:

- *«I understood that somehow I had wanted this situation to happen to me that inside of me I was not doing well, I felt fragile and confused».*
- *«The sanction and the program helped me change. I realised that what counted before was money, and now I realise that expressing yourself and speaking can make you feel happier than money».*

- *«In the past, I was really worried [what people] might think of me. Now I do not longer rely on what people think of me ... I have become mentally stronger».*
- *«I have learned to know who my true friends are and distinguish them from the people who just want to profit from your sporting success».*

Among the strongest assets to help athletes making sense of their sanction, is the opportunity for them to be part of the anti-doping prevention for young athletes. That corresponds to the WINDOP junior program. Most of the athletes are motivated to enrich prevention campaigns for young athletes by sharing their experiences and providing the learning points.

For some athletes, the main goal of such a prevention campaign is to show what can happen in an athlete's life if he/she gets caught in a doping control. Negative consequences illustrated by a living example will, according to him, act as a major deterrent to adopt such deviant behaviour. In addition to contributing to discouraging athletes from doping, such campaigns highlight the consequences of being sanctioned, and in particular, how easily you can lose sight of a goal you pursued for many years.

Some other athletes strongly believe that participating in a prevention campaign is an opportunity to show empathy to young athletes and to help them maintain their focus on health and self-respect, while stressing the importance of preserving such a demeanour despite the difficult moments traversed in competitive sports.

So, far, prevention campaigns have taken place with young athletes and coaches, in the form of school-based sessions, coaching education sessions and youth sports sessions. During such sessions, the doping issues are addressed in a comprehensible language for young athletes, the primary target of this level of prevention. The evaluations of the prevention sessions held in schools and coaching clinics have helped us in identifying the most important consequences of integrating sanctioned athletes. By doing so:

- The young athletes are motivated to reconsider their core values
- By hearing the athletes' testimony, negative consequences of doping are illustrated very clearly

- Sessions allow young athletes to speak openly and tackle personal concerns (friends' influence), without the fear of being judged. The speaker himself displays his own doubts and mistakes, encouraging the audience to disclose more personal experiences
- Young athletes understand the importance of taking responsibility and believing in your own strength when responding to pressures in the sports world.

As one of the program participants finally states: «*To isolate sanctioned athletes is counter-productive, to integrate them is an asset in the fight against doping, by relying on their experience Sport Federations can leverage to create change in the system*».

Let me conclude by stressing that prevention for me is key and should be given more attention in the future by anti-doping authorities. To give more attractiveness and beneficial impact to prevention campaigns, athletes who have gone through the turmoil of a suspension for doping should be integrated in the prevention process. Integrating sanctioned athletes by having them give their advice, their tools, on how to handle pressure and giving the room to young people to ask real questions; not only being informed about doping, but going a step beyond and really learning skills. And create the conditions for a concrete practical change in the next generation of athletes.

5. «Independence» of the anti-doping process – From the involvement of international federations to the role of CAS: Professor Antonio Rigozzi¹⁰³

PROFESSOR RIGOZZI: I'm impressed so many people are still here, despite the weather. I'll try to be short because we want to start the panel session at noon sharp.

My topic is «independence» from a policy perspective. It is a bit weird to have a lawyer talking about policy, but I will do my best. As a lawyer, the first reflex was to do CTRL-F in the WADA Code and start with «indep». With the exception of Article 4.4.4.3 regarding TUEs, and the various provisions regarding the Independent Observer Program, which I do not have the time to discuss here, the only provisions where the word «independent» is mentioned *expressis verbis*, are Article 20.5.1 and Article 13.2.1¹⁰⁴.

Under the heading «*Roles and Responsibilities of National Anti-Doping Organizations*» Article 20.5.1 states that NADOs have «*[t]o be independent in their operational decisions and activities*». No such provision exists in the sections devoted to the roles and responsibilities of the other signatories of the Code, i.e. the IOC (Article 20.1), the IPC (Article 20.2), the international federations (Article 20.3), the NOCs (Article 20.4) and the major event organisations (Article 20.6). Tellingly, or maybe this was considered to be self-evident, no such obligation of independence is provided for under the «*Roles and Responsibilities of WADA*» (Article 20.7). Obviously, what is meant in Article 20.5.1 is that NADOs shall be independent from what is now generally referred to the «national interest» – I will come back to this notion later.

The other entry explicitly mentioning independence is Article 13.2.2, which refers to the appeal process in national cases. It says that national-level anti-doping appeals shall be heard by «*an independent and impartial body in accordance with the rules established by the National Anti-Doping Organization*». So, again, it goes to the national level – one could

¹⁰³ Partner, Lévy Kaufmann-Kohler; Professor, University of Neuchatel; Author, WADC Commentary project.

¹⁰⁴ EDITORS' NOTE: For the sake of completeness one should mention Article 24.3 of the WADA Code according to which «*[t]he Code shall be interpreted as an independent and autonomous text and not by reference to the existing law or statutes of the Signatories or governments*», with the word independent used in a non-legal sense.

start thinking that WADA does not really trust the NADOs... as we will see later, this mistrust is now reciprocated.

Article 13.2.2 shows us, and this is certainly no news to the many arbitration practitioners in this room, that «independence» goes hand in hand with «impartial» – which induced me to expand the search to CTRL-F «impart». The only new entry was Article 8.1 where it is stated the «*Anti-Doping Organization with responsibility for results management shall provide, at a minimum, a fair hearing within a reasonable time by a fair and impartial hearing panel*». This provision concerns the composition of and the procedure before the first instance panels, i.e. the panels that render the decision which can then be appealed according to Article 13.2 of the WADA Code.

As I already mentioned, a national-level appeal goes to the national appeal body which is required to be independent and impartial by Article 13.2.2. But what about appeals in international matters? As you can see I have listed on my slide also Article 13.2.1, which says that such appeals shall be brought «*exclusively to CAS*» with no reference to either independence or impartiality. This is because WADA obviously implied that CAS is both «independent», as stated by the Swiss Supreme Court in *Lazutina*¹⁰⁵ and confirmed by the German Supreme Court in *Pechstein*¹⁰⁶, and «impartial».

So, this is what we have in the WADA Code right now, which is, frankly speaking, not much. But everybody seems – or seemed – to be fine with this legal framework.

Then Russia happened.

Remember Ulrich yesterday said that anti-doping evolves when we have a crisis and we need to move on and to change rules and to ask questions. You know exactly what happened, so I will skip the slide but will urge you to keep in mind that the Russia doping scheme was investigated by journalists and exposed in a well-known German ARD TV documentary following which further claims were made in an article in the New York Times.

¹⁰⁵ Swiss Supreme Court, 4P.267/2002, *Lazutina et al. v. IOC*, decision of 27 May 2003.

¹⁰⁶ German Federal Court of Justice (BGH), KZR 6/15, *Pechstein v. International Skating Union*, judgment of 7 June 2016.

The first reaction by WADA was: we should investigate the allegations of the German ARD TV documentary. This gave us the so called «Pound Independent Commission» composed of three members, Mr Richard Pound (Chair), Professor Richard McLaren and Mr Günter Younger. The word «independent» was also used to describe the second Commission that was put in place to investigate the allegations made by Grigory Rodchenkov, former head of Russia's anti-doping agency, in an interview with the New York Times. This second Commission was the so-called «McLaren Independent Investigation».

Independence, all of a sudden, became a «big deal», at least in the terminology and the official discourse. Indeed, it can be asked: Were the Commissions really independent or independent to what extent? People immediately expressed doubts given that Mr Pound was the first WADA President and is still a member of the IOC¹⁰⁷. In addition, Dr Younger is now the Director of Intelligence and Investigations for the World Anti-Doping Agency¹⁰⁸. It appears that it was precisely to avoid the obvious perception of conflict of interest that the second Commission was led by Professor McLaren alone. If I remember well, among the people who voiced their concern about the independence of the Commissions were not only Mr Rodchenkov but also Vitaly Stepanov, the whistle-blower who first gave the evidence that led to the Pound Report, and Beckie Scott, chair of WADA's athletes' committee.

As a lawyer, what I couldn't resist was to check the Terms of Reference. If you look at those of the Pound Independent Commission, they provide that in order «*[t]o achieve [the task of investigating ARD allegations] the IC [Independent Commission] will review evidence gathered by WADA and will request the collection of further evidence as it deems appropriate. In principle, the IC is also able to obtain information on its own initiative, including interviews with persons of interest. This however will be the*

¹⁰⁷ EDITORS' NOTE: The present contribution does not question the subjective independence of Mr Pound, but merely notes that his connections with WADA and the IOC could raise objective questions of independence.

¹⁰⁸ EDITORS' NOTE: At the time of the Independent Commission, Dr Younger was Head of the Cybercrime Division at the Bavarian Landeskriminalamt (BLKA) in Germany. The present contribution does not question the subjective independence of Dr Younger, but merely notes that his employment by WADA following the Independent Commission could raise objective questions of independence.

exception and will be **coordinated with WADA** to avoid duplication» (emphasis added¹⁰⁹).

Speaking of independence in these circumstances is an abuse of language.

The same with the McLaren Commission: «*The evidence/information and other data are to be gathered by WADA operating through its Investigation Manager and those from whom he may seek assistance (e.g. potential collaboration from NADO investigators and others) or engage for the purpose. The Investigation Manager is to report directly to [Professor McLaren] and to the WADA Director General and WADA COO*¹¹⁰» (emphasis added).

For me as a lawyer, the way in which the evidence is gathered is paramount and any defect in this respect cannot be cured no matter how independent the person receiving and assessing this evidence is. I am sure you remember how important the computer data were in the investigation. To me the very fact that this data, or shall I say meta-data, were gathered by WADA operating through the investigation manager is difficult to square with the idea of an Independent Commission – again irrespective of the way in which the investigation manager did collect and process the evidence. Yesterday Mathieu Holtz told us that the investigation body of WADA will have an independent supervisory body, but that's for the future; right? One would hope that such independent supervisory body will be genuinely independent. As matters stand today, the only thing that one can say for sure is that the evidence was not tested in an adversarial way.

That said, and irrespective of how independent (and from which stakeholders) the process was, the reality is that the work of the investigative Commissions confirmed what the ARD journalist discovered and what Mr Rodchenkov said and that it clearly appears that there was institutionalised manipulation of the doping control process in Russia.

¹⁰⁹ WADA, Independent Commission: Terms of reference, <https://www.wada-ama.org/sites/default/files/wada-independent-commission-terms-of-reference-2015-jan-en.pdf>.

¹¹⁰ WADA, Independent investigation into the Sochi allegations made by Grigory Rodchenkov: Terms of reference, https://www.wada-ama.org/sites/default/files/resources/files/wada-independent-investigation-of-g-rodchenkov-allegations-tor-en_0.pdf.

You will agree that this is unprecedented and makes Festina and Armstrong look like amateurs. How was that possible? What went wrong? Who is to be blamed? Those are the questions that need to be answered. This is where policy, or maybe I should say politics, comes into play. On this slide you will find what I think is a list of papers or positions, the underlying purpose of which is to address the issue of what should be done after Russia so that this won't happen again:

- 17 October 2015: Fourth Olympic Summit Communique¹¹¹
- 30 August 2016: NADO's Copenhagen reform proposals¹¹²
- 20 September 2016: WADA multi-stakeholder Think Tank meetings¹¹³
- 8 October 2016: Declaration of the 5th Olympic Summit¹¹⁴
- 19-20 November 2016: WADA Executive Committee – Foundation Board Meetings¹¹⁵
- 28 February 2017: Travis Tygart's witness testimony – US House Energy and Commerce Subcommittee on Oversight and Investigations hearing¹¹⁶

¹¹¹ IOC, Fourth Olympic summit communique, 17 October 2015, <https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/Documents/Conferences-Forums-and-Events/Events/Olympic-Summit/4th-Olympic-Summit-Communique-Lausanne-2015.pdf>.

¹¹² Special NADO summit, Copenhagen, Denmark, 30 August 2016, available at https://www.usada.org/wp-content/uploads/Special_NADO_Summit_Reform_Proposals.pdf.

¹¹³ WADA, WADA holds first in series of multi-stakeholder think tanks, 20 September 2016, <https://www.wada-ama.org/en/media/news/2016-09/wada-holds-first-in-series-of-multi-stakeholder-think-tanks>.

¹¹⁴ IOC, Declaration of the 5th Olympic summit, 8 October 2016, <https://stillmed.olympic.org/media/Document%20Library/OlympicOrg/News/2016/10/2016-10-08-Declaration-Olympic-Summit.pdf>.

¹¹⁵ WADA Executive Committee and Foundation Board meetings, Summary of outcomes, 19-20 November 2016, Glasgow, Scotland, UK, https://www.wada-ama.org/sites/default/files/resources/files/summary_notes_-_ec_fb_meeting_-_november_2016.pdf.

¹¹⁶ Testimony of Travis Tygart, House hearing, House Energy and Commerce Subcommittee on Oversight and Investigations, 28 February 2017, <http://docs.house.gov/meetings/IF/IF02/20170228/105613>.

- 16 March 2017: IOC's 12 Point Declaration¹¹⁷
- 23 March 2017: iNADO's response to IOC's 12 Point Declaration¹¹⁸
- 21 April 2017: iNADO's White paper on the concept of an «Independent Testing Authority»¹¹⁹

The list is quite remarkable in and of itself and the sheer speed at which the reports were issued makes it truly extraordinary. From the end of 2015 there was a back and forth between iNADO, that is the most important group of NADOs, and the IOC, with WADA somehow caught in the middle and trying to figure out what we need to do for the future. If you ask me, but it's only an impression, this is the result of how the different stakeholders tried to distance themselves from what happened and/or take advantage of the Russian scandal to attempt to solidify or improve their own position/importance within the anti-doping field. What I will do in the next couple of minutes is to try to summarise the positions of the various stakeholders and to see how they have relied on the concept of independence to support their position.

Let's start with the IOC's position as it is now framed. It is the famous 12 Point Declaration from 16 March 2017 – it is quite fresh. Again, I have checked the Declaration to identify any reference to independence. As this is only 12 points no need to use CTRL-F and it was also easy to extend the search to independence, impartiality and neutrality. Six of the 12 points were responsive:

- Point 1: WADA «*must be equally independent from both sports organisations and from national interests*».

¹¹⁷ IOC, Declaration of the IOC Executive Board: 12 principles for a more robust and independent global anti-doping system to protect clean athletes, 16 March 2017, <https://www.olympic.org/news/declaration-of-the-ioc-executive-board-1>.

¹¹⁸ iNADO, Institute of National Anti-Doping Organisations (iNADO) Board of Directors' Response to International Olympic Committee (IOC) Declaration of March 16, 2017, 23 March 2017, http://www.inado.org/fileadmin/user_upload/Press_Releases/2017_March_iNADO_Statement_on_IOC_Declaration_2017Mar23_.pdf.

¹¹⁹ iNADO, iNADO White paper on the concept of an «Independent Testing Authority», 21 April 2017, http://www.inado.org/fileadmin/user_upload/Press_Releases/2017_March_iNADO_Statement_on_IOC_Declaration_2017Mar23_.pdf.

- Point 2: «*The WADA boards should also include independent members*».
- Point 3: WADA «*is to have a neutral President and Vice-President*».
- Point 6: «*An Independent Testing Authority [is] to be created*».
- Point 9: WADA is to «*ensure that NADOs' Test Distribution Plans are implemented independently from national interests*» (emphasis added) – again the national interest¹²⁰.

Then point 12, probably the most controversial one: «*[s]anctioning with regard to individuals ... to be determined by the independent Court of Arbitration for Sport (CAS), following the democratic principle of the «separation of powers»*». Now the NADO's position, which was published following the «Special NADO Summit» in Copenhagen, Denmark on 30 August 2016. Here are the main points:

- As a general statement NADOs «*endorse a strong WADA that adheres to the principles of independence, separation of powers, and best governance*»
- More specifically NADOs insist that the **independence requirement of Article 20.5.1**, which we know currently applies only to NADOs, should apply equally to WADA, IOC and IFs: «*[A]ll decision makers of anti-doping organisations should not simultaneously hold a board or officer position or other policy-making positions in any IF or major event organisation*».
- According to NADOs, this requirement should apply to the entire «*anti-doping system*», i.e. not only to investigations and testing but also to results management.
- Moving from the operational to the executive level, NADOs suggest that «*[t]he chief executive and any board of directors of anti-doping organisations should be selected independently and transparently*» (emphasis added)¹²¹.

¹²⁰ IOC, Declaration of the IOC Executive Board: 12 principles for a more robust and independent global anti-doping system to protect clean athletes, 16 March 2017, <https://www.olympic.org/news/declaration-of-the-ioc-executive-board-1>.

¹²¹ According to the published document, «*[t]he proposals were written and endorsed by anti-doping leaders from around the world, including Australia, Austria, Canada, Denmark, Finland, France,*

Of course, there is a bit of playing with words: «we endorse WADA», it is good, but then we start disagreeing... And of course the NADOs clearly wanted to address this recurrent notion that NADOs must be independent from the «national interests», and the fact that the WADA Code mentions that only with respect to the national adjudication process. Following the Russia matter, the IOC explicitly extended the notion to testing (i.e. the «Independent Testing Authority» or «ITA»), as it is obvious that if the test is rigged there is not much that an independent panel can do. The assumption in the WADA Code and the implication in the IOC's position is clear: NADOs might be or possibly are somehow subject to national interests. So, NADOs say: Wait a minute; why only us? Everybody should be subject, according to the Code, to the same standard of independence. That's point number one.

Then they go on and they say: all levels of the process must be independent. It is not only at the adjudication level but even before, when it comes to testing and investigation and results management. From this point of view it is not totally different from the concept of the ITA suggested by the IOC.

But, of course, when you go down to the detail of who will have the responsibility for the various anti-doping tasks then the consensus is gone. NADOs are of course fine to have a new ITA taking over the IF's responsibilities at the international level, but they would like to retain their responsibilities at the national level. This slide is borrowed from the presentation that Matthias Kamber made in this very same room at the ASDS conference on 25 November 2016, which can be taken as an illustration of how the system would operate according to the NADO's position (at least as interpreted by Swiss Antidoping, the Swiss NADO, which is one of iNADO's constituents):

Germany, Ireland, Japan, Netherlands, New Zealand, Norway, Sweden, Singapore, Switzerland, United Kingdom, United States as well as Institute of National Anti-Doping Organizations (iNADO)», Special NADO summit, Copenhagen, Denmark, 30 August 2016, available at https://www.usada.org/wp-content/uploads/Special_NADO_Summit_Reform_Proposals.pdf.

New Responsibilities in Anti-Doping

	Rule Setting	Testing	Intelligence / Investigation	Prevention	Research	TUE	Sanctions
New WADA	Code, IS	No	Yes	No	No	No	Yes (non-compliance in general)
STA	No	Yes (international)	No (yes for testing follow up)	No	Yes (lab techniques)	No	Yes (international level)
Laboratories (multi-national)	No	Yes (Analysis)	No	No	Yes (new analytical techniques)	No	No
IFs	No	No	No	Yes (on international level)	No	No	No
IOC	Olympic Charter	No	No	Yes (Olympic Values)	Yes (Social science, effect of values based education)	No	No
NADOs	No	Yes (national level and if accredited international level)	Yes (national level)	Yes (national level)	Yes (national level)	Yes (national level)	Yes (national level)
CAS	No	No	No	No	No	No	Yes

What immediately struck me is the line about international federations. There's nothing left for them. The only thing that is left for them under this position is «prevention» at the international level – and we heard the athletes today telling us that prevention must be done by the national federation. So, it is really pushing the international federations out of the system and replacing them with the ITA (which is referred to as STA in Matthias' slide) and to have the NADOs playing the ITA at the national level – a sort of NTA so to speak.

Now, what is WADA's position? WADA's position is – frankly, I don't know. There is a working group of stakeholders trying to come up with a proposal, and a proposal is meant to be presented to the next meeting of the WADA Executive Committee and Foundation Board on 17-18 May 2017.

[EDITORS' NOTE: Following the Macolin Summit, WADA published a summary of outcomes of the Executive Committee/Foundation Board Meeting¹²². For the purposes of completing this presentation we have set out some of the key points, as follows:

Consequences of Non-Compliance: The Foundation Board (Board) approved development of a framework proposed by the independent Compliance Review Committee (CRC) that specifies a range of graded, proportionate and predictable consequences for non-compliance with the World Anti-Doping Code (Code) by a Signatory. With this approval, WADA will be required to conduct a stakeholder consultation process, starting 1 June, with the view to seeking approval at the next Board meeting in November 2017 and the changes entering into effect in early 2018. The goal is to reach consensus on:

- review of a limited number of Code articles related to Code compliance; and
- a new International Standard for Code Compliance by Signatories (ISCCS).

...

Independent Testing Authority: The Board approved the recommendation of the ITA Steering Group concerning the structure and process of establishing the ITA Board. These include the following:

- The ITA would be established with full independence, constituted through a new Swiss Foundation. The IOC, on behalf of the Sports Movement, would be the founding body of the ITA and would be responsible for the initial capital.
- Once created, the Statutes (after approval by the Steering Group) will reflect the agreed structure; the mechanisms of Board appointment; and, indicate initial Board members put in place.
- The composition of the ITA Board would be as follows:
 1. A Chairperson (Independent/Neutral);
 2. An IOC representative;

¹²² WADA Executive Committee and Foundation Board Meetings, Summary of outcomes, Montreal, Quebec, Canada, 17-18 May 2017, https://www.wada-ama.org/sites/default/files/resources/files/wada-summary-notes-ec-fb-meeting-external-may2017-en_0.pdf.

3. An IF representative;

4. An Athlete;

5. An Expert (Independent/Neutral).

- A representative of WADA would be invited in an ex-officio, non-voting position.
- The Sport Movement would propose the five members to a Selection Committee comprised of three persons. The Selection Committee would be appointed by WADA Management and would include persons with appropriate expertise.
- The Selection Committee would be responsible for reviewing nominations put forward by the Sports Movement to the positions.
- The two independent/neutral positions could also be suggested by anyone from sport, government, WADA or the wider anti-doping community.
- Once vetted by the Selection Committee, the proposed composition of the ITA Board would be presented to the WADA Executive Committee for ratification.
- The Steering Group acknowledged that WADA cannot be responsible for or directly involved in the ITA, given its position as the independent global anti-doping compliance regulator. The above recommendation on structure/composition provide for that separation while also allowing the ITA Board to access and benefit from WADA expertise.
- The ITA Board itself would be responsible for appointing a Director General who would be autonomous. The Director General, in consultation with his/her Board, would be responsible for structuring the organization.

What is still unclear is whether and to what extent the ITA will be mandatory for international federations or even at the national level. According to the WADA Summary of Outcomes from the 17-18 May 2017 meetings, the «ITA, which was [originally] proposed by the Olympic Summit, is intended to assist International Federations (IFs) that wish to delegate their anti-doping programs to an independent body. The ITA would not change

IFs responsibilities under the Code, they would ultimately remain responsible for compliance with the Code»¹²³.

So, what are we left with? As I see it, there are three issues. First, there is the independence of WADA itself, which is an issue that has been put forward by the IOC and endorsed by the NADOs. Second issue, the independence at the testing level, which is the main idea behind the ITA. Third, the independence at the sanctioning level, which I have only mentioned in passing by reference to point 12 of the IOC 12 Point Declaration.

As to WADA's independence, I think that this is often repeated and that there is a great deal of consensus but no real discussion about it. I have already expressed my doubts about the independence of the investigation Commissions set up by WADA. It is not enough to add the label «independent» to make a process or an institution truly independent. To me the issue is even more complicated given that we now know that WADA was informed about the «Russian problem» well before the ARD allegations – I think this has even been noted, although in passing, by the Pound Commission. Martial Saugy conducted a study about the prevalence of doping and there was a country, referred to as country A, clearly standing out. But who in this room didn't know that country A was Russia? Of course we all knew it was Russia, there can be no serious doubt about that. So, the issue is why did we have to wait for a German journalist to come up with a documentary to do something? To be clear, this is not about pointing the finger, this is just to question why nothing was done by WADA before so that we can try to figure out the best way forward.

If the problem was a lack of independence, fine, but where is the evidence? Frankly, I do not know. It could be other reasons. Maybe WADA is simply ineffective. It has become a bureaucratic monster. You read the Technical Documents, there might be an indication suggesting that this could be part of the answer. What really strikes me is that the two independent reports, they examined everything, but they did not examine WADA's role itself. So, I don't think that we have enough evidence to say: «Oh, what

¹²³ WADA Executive Committee and Foundation Board Meetings, Summary of outcomes, Montreal, Quebec, Canada, 17-18 May 2017, https://www.wada-ama.org/sites/default/files/resources/files/wada-summary-notes-ec-fb-meeting-external-may2017-en_0.pdf.

happened, it's because WADA was not independent enough». And of course it will not be me saying independence doesn't matter, but I think that before changing the system (or proclaiming that independence is the solution) it is good to just ask the question what happened and why, and then we fix accordingly.

If you do that, you will realize that there is no real evidence that what happened in Russia is due to a lack of independence in the system. To be frank, with one exception, this has not even been explicitly alleged. The exception is Travis Tygart's testimony of 28 February 2017 during the hearing conducted by the House Energy and Commerce Subcommittee on Oversight and Investigations. In his capacity as USADA Chief Executive Officer, Mr Tygart claimed that the reason why WADA dragged its feet in the early phases of its investigatory efforts into Russia, despite «WADA and the IOC [having] compelling evidence, from whistleblowers, about systematic Russian cheating for several years prior to the 2014 Sochi Winter Olympic Games» is a deficiency in WADA's governance structure and funding:

As it stands, half of WADA's 38-member Foundation Board and its 12-person Executive Committee is selected by the Olympic sports movement. These sport members are not mere figureheads but are lifetime sport executives with strong incentive to influence WADA decisions to advance their own sport interests. One IOC leader who simultaneously sat on WADA's Board for years until this year, expressed his position on clean sport to The New York Times in November 2016 by stating, «We need to stop pretending sport is clean. It's a noble principle but in practice? Its entertainment. Its drama». While surprisingly open and candid, not exactly the type of independent leadership clean athletes can or should depend on to protect their rights.

WADA's current President is also an IOC member and served as an IOC Executive Board member through the Rio Olympic Games. The lack of a clear conflict of interest policy or term limits perpetuates the ability of sport interested decisions to take precedence over the right decisions for clean athletes. Additionally, the IOC is by far the single largest funder of WADA providing WADA \$14.8M in 2017. And, while this number is paltry compared to the IOC's annual revenue according to its 2015 Annual Report of \$1.5 Billion or compared to its \$3.9 Billion total assets including a \$1.4 Billion fund balance,

it is significantly larger than the next single WADA contributor, the U.S. government which contributes \$2.1M in 2017¹²⁴.

If this, basically a comment by one single IOC member, is the evidence of an alleged lack of independence of WADA, it is clearly insufficient. To me there must be more compelling evidence before putting into question the independence of an institution vis-à-vis the IOC, let alone to suggest that the IOC is not serious about anti-doping.

The reality is that even the IOC agrees that the President and Vice-President of WADA should be «neutral» to avoid any «perceived conflict of interest». I totally agree that with respect to independence, perception and appearance do matter. This is what Johannes said earlier today with respect to CAS: he did not say that CAS was unfair and partial, he said that his experience as an athlete in front of that court was that he felt it was unfair. This is something we should not only accept but also address. The same applies here. We should all recognise that and when the people in general – like these athletes – say that there is an appearance of lack of independence, that's something that needs to be fixed.

Now assuming that lack of independence was indeed the reason for WADA's failure to investigate or intervene in the Russian situation earlier, the issue is whether the IOC's call for independence of the President and the Vice-President of WADA is sufficient. I'm not sure that the President of WADA and the Vice-President of WADA are the persons who, on a daily basis, are really involved in the choices that matter. So, the question is where to stop. The entire Executive Committee? The entire Foundation Board? We know that the committees have a lot of power. The committee in charge of the prohibited list, that is the committee deciding to add meldonium on the list despite the lack of an excretion study, is a good example. Should they be independent? Had they been more independent would they have acted with more caution? The only reason I am asking these questions is because independence is not necessarily the panacea in all

¹²⁴ Testimony of Travis Tygart, House hearing, House Energy and Commerce Subcommittee on Oversight and Investigations, 28 February 2017, <http://docs.house.gov/meetings/IF/IF02/20170228/105613/HHRG-115-IF02-Wstate-TygartT-20170228.pdf>.

situations and the situation should be carefully assessed to identify the problem before simply suggesting increased independence as a miracle cure.

This also applies to another point identified by both the NADOs and the IOC and that is independence of testing. This is certainly possible and advisable. Now, how to do it? Do we really need an ITA? Again I would suggest that we look at whether there is evidence that the current system doesn't work and why. Is there any evidence that either the international federations or the NADOs are not doing the right thing? Did somebody speak up about that? The only mention I could find is in the latest iNADO white paper¹²⁵ which was issued this week and that Joseph De Pencier sent me at 11 p.m. – I am saying this because I must confess I did not update the slides overnight. The White Paper states that the IOC's original rationale for an ITA was «the conflict that exists within IFs who are both responsible for the advancement (e.g. development, promotion, marketing) of the sport and maintain responsibility for detecting and deterring doping in the sport» but does not refer to any evidence of this statement. It goes on to claim that an «independent testing authority may also be supported on the ground that some IFs may be implementing the Code in an inconsistent and consequently ineffective manner». This time, it adds that «individual NADOs cooperating with IFs and NFs have seen frequent evidence of this». If that is the case, this evidence should be put forward in order to investigate the problem and to fix it if necessary.

As far as the international federations are concerned, if we look at the only two real pieces of evidence – or should I say investigations – I don't think that it is the case that there are issues of independence within the IFs:

1. There is of course the shameful precedent of the IAAF that has been presented by Mathieu Holz this morning. The investigation into the IAAF showed that yes, the organisation was corrupt at the highest levels. However the (wide scale) corruption that occurred was not a case of an international federation trying to protect the reputation of its sport by covering up doping. It was a case, pure and

¹²⁵ EDITORS' NOTE: This reference is to iNADO, iNADO White paper on the concept of an «Independent Testing Authority», 21 April 2017, http://www.inado.org/fileadmin/user_upload/Press_Releases/2017_March_iNADO_Statement_on_IOC_Declaration_2017Mar23_.pdf.

simple, of some powerful men trying to extort athletes and get more money in their pockets.

2. The second example is the UCI, where allegations of cover up were brought forward in the wake of the Armstrong matter. The UCI put together a genuinely independent investigation commission (the Cycling Independent Reform Commission or CIRC) – and I say «genuinely» based on the terms of reference. I do not have time to expand on this but if you are not convinced I invite you to compare the terms of reference of the CIRC against those of the WADA Commissions to see that this is the case. And even despite the clear independence of those on the CIRC panel, it became clear that there was no evidence of cover up and that there is currently not an issue with the testing of athletes by the UCI. Of course the CIRC suggested that in the past the management of the UCI took some actions which could be seen as protecting the sport rather than promoting anti-doping efforts, but it also found that this attitude no longer exists. The UCI has recognised that minimising doping is not the way to proceed and, to me, it is actually the best example of how a sport governing body can turn this attitude around and make sure it is doing «anti-doping» properly.

With respect to NADOs there is the overwhelming evidence uncovered by the two WADA-led Commissions which shows that what the IOC has been referring to as the «national interest» did indeed play a role. There have been suggestions that similar situations could exist but no actual investigation has been conducted. What is sure is that the NADOs have taken the recurrent reference to the «national interest» as a sign of mistrust. In their latest policy paper they clearly express the fear that the new ITA would interfere in their testing responsibilities: «*the IOC's demand for a global independent testing bureaucracy to combat supposed «national interests» [is not] practical or calculated to be an effective solution*». Interestingly, iNADO contrasts the IOC's «*unproven, untested, and currently non-existent global bureaucracy*», on the one hand, with the «*established effectiveness of dozens of NADOs around the world*». Again, nobody was provided with the evidence of such claims and, most importantly, it is not even suggested that they could apply to all NADOs worldwide.

Maybe instead of using «independence» or «lack of independence» as an argument whenever it serves their interests, the various components of the anti-doping community

should look at the actual situation and figure out what is the best way to make sure that Russia is the last scandal of this kind.

I also think that, irrespective of whether there is actually evidence of a problem, we've seen in just this last year that WADA already has significant powers. With WADA taking great strides to focus on investigations and compliance issues (as is clear from its latest meeting outcomes set out above) we have to assume that this will be enough of a safeguard, at least for those sports and those countries who are competent to handle testing on their own and to take measures where it is really necessary.

PROFESSOR SANDS: Antonio, you have two minutes.

PROFESSOR RIGOZZI: Two minutes!

So, my point would be that – and this is the last point – WADA already have a lot of power; they have input into the test distribution plan, they have access to everything through ADAMS. We heard from Mathieu yesterday that they can even order independent testing. So, the tools are already out there. Let's use them, let's give WADA, I think, the power and the resources to do that, and then more likely than not there will be no need for an ITA and the entire debate that is now exciting the international sports arena will probably be useless.

Given the time constraints and knowing the way in which Philippe enforces them, I shall not discuss in detail the last point of the IOC 12 Point Declaration, namely that «*sanctioning with regard to individuals*» is to be done directly by CAS. The NADOs have pointed to the fact that the IOC's proposal alleges to be based on a «*separation of powers*», while the President of the International Council of Arbitration for Sport (ICAS), the body responsible for the administration and financing of CAS, is also an IOC Vice-President. This is of course a valid point and I was told that even the IOC recognises the problem. Personally, I think this is more a matter of perception than a genuine independence issue, but as we have seen time and again, perception counts.

Coming back to independence, I think, again, that the key question we should ask ourselves is if the Russia scandal is somehow related to a problem of lack of independence in adjudication – and the answer is clearly no – or at least whether there is any indication that the current system is deficient. In other words: is there any indication that

there is a widespread problem of independence in the adjudication process that cannot be efficiently addressed by the fact that the NADOs, IFs and WADA have a right to appeal to CAS decisions from allegedly non-independent first instance adjudication bodies? As you know I follow these issues quite closely and I never heard WADA complaining about that, let alone have I seen any evidence of such a problem. Both in the IAAF case and in Russia the system was rigged well before the cases reached adjudication. Of course, I cannot rule out that some federations might be inclined to impose lesser sanctions on their athletes or to conclude that there was no violation, but such cases are easily fixed on appeal.

Just like the NADOs have pointed out the bureaucratic nature of a new centralised ITA, one should also question whether the centralisation of the adjudication at CAS level would be beneficial to the process. Again, this would require a careful analysis of the current situation, which has not been done. As many of you in this room know, despite its best intentions, CAS arbitration can take a remarkably long time. Sometimes even appointing a president to a panel can take a matter of months, let alone finalising the proceedings and receiving the award. If CAS is to be appointed as the sole sanctioning body, how can it ensure that it is more efficient when acting in first instance? Along the same vein, it's no secret that CAS proceedings can at times be prohibitively expensive. Is the idea to have all of these cases free of charge like appeals from international federations currently are? If so, how can CAS cope financially with this new load? And if not, how is an athlete going to afford the costs of a first instance hearing at CAS?

Knowing the number of cases that are handled just by the UCI, and the availability of the CAS arbitrators on the current list, if you multiply this by the number of international federations I think that the CAS arbitrator list would have to be significantly expanded in order to ensure that the system is not paralysed. Assuming all this would even be feasible the question is whether specialisation and expertise of all the arbitrators on such expanded list can still be guaranteed. I am not sure that these issues have been properly assessed before the suggestion was made that all cases should be decided by CAS in first instance.

Having gone through the various stakeholders' positions I cannot help but wonder whether this new emphasis on independence in the wake of the Russia scandal is not

simply a way – or I should say an easy way – to show that something has been done. After all who can disagree with the idea of increased independence? My concern is that this is just about appearances and that the real causes that allowed the IAAF and the Russia scandal to happen have not been carefully investigated. The fact that the investigations that were conducted were done in a way that is far from the high standards of independence that are suggested for the future somehow reinforces me in that impression.

Personally, I have come to the conclusion that accountability is more important than independence as it will force people and institutions to act independently and impartially. A powerful and independent WADA would then be in a position to take the necessary measures when lack of independence and impartiality becomes evident. Interestingly enough, the latest recommendation of the Council of Europe's Monitoring Group¹²⁶ focuses on the concept of «operational independence», which can be achieved internally provided that all the relevant actors are made accountable for their actions.

Last point, Phillipe --

PROFESSOR SANDS: This is your second last point, Antonio!

PROFESSOR RIGOZZI: Not overreacting does not mean that independence is overrated. This is really my last point.

PROFESSOR SANDS: That was a terrific last point, and it was short.

¹²⁶ EDITORS' NOTE: This refers to Monitoring Group (T-DO), T-DO/Rec (2017) 01, Recommendation on ensuring the independence of hearing panels (bodies) and promoting fair trial in anti-doping cases, 20 February 2017, [http://www.coe.int/t/dg4/sport/Resources/texts/T-DO-Rec\(2017\)01_EN_Recommendation%20fair%20trials.pdf](http://www.coe.int/t/dg4/sport/Resources/texts/T-DO-Rec(2017)01_EN_Recommendation%20fair%20trials.pdf).

6. Panel discussion – Outlook for the future of anti-doping: Full speed ahead or back to square one?: Mr Benjamin Cohen¹²⁷, Dr Paul Dimeo¹²⁸, Dr Bengt Kayser¹²⁹, Professor Denis Oswald¹³⁰ and Mr Jaimie Fuller¹³¹

PROFESSOR SANDS: Our panel discussion, as our colleagues assemble, is given the following title: outlook for the future of anti-doping: full speed ahead or re-start from scratch?

That is a very binary proposition. I suspect that between full speed and re-start from scratch, there may be much in the middle which could occupy us.

I think the best way to go is in the order of speakers. I'm going to invite each speaker to address the matter in two minutes so that we can have some proper time for conversation. I will be tough, in application of the principle that «less is more».

Benjamin Cohen, director of WADA's European regional office, if you could introduce the topic.

MR COHEN: Thank you, Professor.

You have not given me an easy task to introduce such a topic in two minutes, especially after Professor Rigozzi's insightful presentation on independence.

Just to answer the theme given to the panel, as to whether we should go back or full speed ahead. I joined WADA six months ago because I believed that there was a need to go full speed ahead. That would be my very blunt answer. I think that the Russian case, as Professor Rigozzi said, highlighted some issues. People think the system is broken. I personally don't think so. I don't think that by uncovering more cases suddenly there's more doping. I think it is also because the system somehow works that we are able to uncover cases. Again, as Antonio said, never before had there been so many

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¹³¹ Executive chairman, SKINS.

meetings, summits, think-tanks about anti-doping, and I think that is also healthy. It shows that because of this «drama» people come together, the stakeholders come together, and want to find solutions. I don't know if I'm already beyond two minutes but I think we should go full speed ahead. I was a bit disappointed when the McLaren report came out because the first thing that happened was a political war between the organisations, and I think that was not healthy.

But I feel that now people have come back to reason and decided to start discussing again. I'm still unsure why everyone is trying to pull the strings in their favour and why doping is so political. I still don't understand it. I think it is very technical. I think it should be operational and focus on efficiency, and so I don't really support all the political side of it. We would need hours to talk about the ITA, the independence, the governance, but I think we will discuss these points a little bit more in detail. I pass the floor to my colleagues.

PROFESSOR SANDS: Thank you for being absolutely bang on with time.

Our next speaker is Paul Dimeo.

DR DIMEO: I am a university lecturer. I don't have a particular vested interest in any of the institutions or stakeholders, but increasingly I've become aware of the role of athletes, and I think the panel that was held earlier on the athletes' experience is really important.

The question for the panel was, is there scope to revisit or start from scratch. I think pragmatically the answer is probably no, but I think it would be really interesting to have a conversation about what we actually mean by «clean sport». What is the justification for the amount of surveillance of athletes? What do athletes actually want? And what are the processes by which an athlete gets educated, why do they fail so badly? Why is the process of having to go to CAS and make an appeal so difficult? I think those sort of fundamental questions would be really great to lay on a table and actually have a proper conversation about them and not just leave it to one organisation to set all the rules.

PROFESSOR SANDS: Can I just ask. We have one vote for full speed ahead. You didn't actually express a view, and I'm going to push you to express a view. Full speed ahead or start from scratch or something in between?

DR DIMEO: Start from scratch.

PROFESSOR SANDS: The battle lines are drawn. It is 1-1 after four minutes.

Bengt Kayser, Professor of Psychology is next. Thank you, Bengt.

PROFESSOR KAYSER: You're changing roles, I'm a physiologist! Second, we were promised three minutes and suddenly you change the rule! I'm appalled.

I will make it short. I go for the mid stance, and here's my reasoning: prohibition just doesn't work. We've tried that. The war on drugs is a miserable failure, and comes with an extraordinarily high societal price. Also, the war on doping cannot succeed, not as long as it maintains its credo of wanting to eradicate doping and to guarantee clean competition in athletes. It is impossible. Worse, it may actually cause more problems than it prevents for society at large.

We propose a new, dynamic, practical approach of doping using a harm minimization or harm reduction approach. The basic idea is to only keep the health argument central and, initially, not change much else, but gradually simplify the list of forbidden substances and methods while monitoring what happens.

This model might provide a way out of this present spiralling towards excessive surveillance and repression which also leads towards a general movement of negation of what – elsewhere in society – will for sure become mainstay anyway. I'm alluding to what Andy Miah discussed before, and that is human enhancement. In my view it is now time to move away from the ill-inspired ideology behind present anti-doping and become more realistic and more pragmatic. My proposal may be of help in fleshing out a workable alternative, which is not «minus one», not «plus one», but somewhere in between.

Thank you.

PROFESSOR SANDS: Deeply grateful for the time. This is getting incredibly exciting. It is now 1-1 and each side has been shown a red card. They are down to 10 players.

Our next speaker, Denis Oswald, who is known to you all: IOC member, director of CIES.

[To Professor Kayser] And I do apologise, it does, indeed, say «*physiologist*», Bengt.

PROFESSOR OSWALD: I will try to sum up in one minute what I was supposed to say in three minutes. I have been asked to speak about the activity of the IOC Disciplinary Commission in recent months. You probably read that a number of athletes from the Beijing Games and London Games have recently been stripped of their medals.

The reason is the following. Cheaters, it was mentioned yesterday, are a length ahead of the prosecutors. However, if you wait a little bit, equipment will improve, get more sensitivity, new methods will be developed and you can catch athletes that you couldn't catch at the time of their Games. It is why the IOC has established a programme of re-testing for athletes from previous Games. It started with the Athens Games, and the IOC and the Federations selected 1,400 athletes to be part of this re-testing programme for Beijing and London. Out of these 1,400 retested samples, more or less 10% were positive whereas they were negative at the time of their games.

We had hearings for about 120 athletes, regular hearings; we started in June 2016 and we just finished last March. The athletes were stripped of their medals. The example of a typical substance which was found was turinabol, which is a steroid, an old steroid which was used already at the DDR time, and which has not disappeared. I do not have time to tell you (what I had planned to do), how the selection of the sports and of the athletes was made. Now we will continue our work with the consequences of the McLaren report and try to establish evidence of cheating from the athletes who have benefited from the system put in place by Russia. That's not an easy task but we hope we will be able also to catch athletes who got medals in Sochi that they did not deserve.

PROFESSOR SANDS: If I may ask, in catching athletes who get medals that they don't deserve, in the past or in the future, full steam ahead, Bengt's view, or start from scratch in the methodology, or are you in the middle?

PROFESSOR OSWALD: Well, probably in the middle. Because nothing is perfect and improvements have to be made, but not everything is wrong, not everything is bad, and certainly we have to build up on what is existing.

PROFESSOR SANDS: 1-1 with five minutes to go and two red cards.

We're over to Jaimie Fuller, who is going to declare what happens in this game. Jaimie.

MR FULLER: Thank you, Philippe.

I'm a little bit of a fish out of water here. I love coming to these things because they are full of academics and lawyers, whereas I'm in business. My company is called SKINS and we're a sportswear business and we're about building brand. So, I try and bring a different perspective to these discussions as opposed to the academic and legal perspective. I try and bring what I like to call a 'real life' perspective.

We're driven by our brand values which are around fuelling the true spirit of competition. It is about appreciating what role sport has in society. Sport is immensely influential, and I think at times some of the people in this room lose a bit of that perspective. We heard the athletes' panel before talking about what the impact is on them. And what is core to our business and core to our culture and beliefs are the two constituents that are heard least from in this discussion: (1) being the athletes and (2) being the fans. There's a lot of money in the business of sport, and all that money comes back to the fans. It doesn't matter whether it is tickets, memorabilia, subscriptions to broadcasters or what have you; it is the fans that fund it. When you overlay that view about the role that sport plays in society, that really puts a huge responsibility on those governing sport, driving sport, and they've got to start with the right intention, and we have seen a plethora of examples over the last several years where that's not the case.

I'll cut to the answer, Philippe. Are you going to have a vote on this?

PROFESSOR SANDS: No, I'm the referee, the Martin Atkinson of the operation.

MR FULLER: Good. Well then I'm with him [indicating Dr Paul Dimeo]. I think the system is so inherently busted that it is a wipe-it-and-start-again. I think we need to rebalance priorities and rebalance how to build it and how to define it and go from there.

PROFESSOR SANDS: Firstly, I express my gratitude to each of our five panel members for clarity, brevity, and precision. That is superb.

We've had a group sat here very patiently, and I think there are quite a few questions. I'm going to take questions in pairs so that the panel can now begin to address the questions on the topics they've addressed and on the views they've expressed but, interestingly, we have a view that has emerged on this panel that the system is broken and it needs to be well, it depends how you measure it, actually. One could say that the

two people who voted in the middle are more with Ben's view, but there are a range of views that have been addressed.

Let's throw it open to you for questions and the things you want to talk about and get answers from our panel.

JOSEPH DE PENCIER: Thank you very much.

Joseph De Pencier from iNADO.

For those who would re-start, what's the first step?

PROFESSOR SANDS: Thank you. Another question? Is there anyone else who wants to ask another question?

HOWARD JACOBS: Hello, Howard Jacobs.

You know, when we talk about alternate ways to look at anti-doping, and I know the WADA Code is always held up as the gold standard, there are other ways. In American professional sports, if you look at how, for example, Major League Baseball and the National Football League do anti-doping, one of the ways that it is different, and I'd be curious to hear from WADA on this, is they actually have separate policies for substance abuse versus performance-enhancing substances with different purposes.

So, performance-enhancing substances, the primary goal is punishment and deterrence, but for substance abuse it is counselling. So, if you test positive for a substance of abuse, it stays confidential, you get counselling, you are put into a programme and it never becomes public if you comply with that.

I'm curious, you can read through the WADA Code, I don't think counselling is mentioned once. I don't think that there is any counselling for athletes after a positive. Is that something that has ever been considered or maybe another way to look at some of these issues?

PROFESSOR SANDS: Why don't you two start with the first question.

MR FULLER: Joseph, when I say 'start from scratch', I don't mean throw absolutely everything out, but the two key things that I'd like to see is I'd like to see the IOC removed from interaction with WADA and I would also like to see the IOC removed from interaction with the Court of Arbitration for Sport.

In real life we have independent judiciaries, certainly in my country, Australia, and in the UK, I can't speak for other countries but there's no reason why the International Olympic Committee has to have controlling influence over the Court of Arbitration for Sport. And I know we talked before about perception and reality, I don't understand why it cannot be removed completely and have a judiciary play a completely independent role.

I don't think it is wrong to say that WADA is reflected in a lot of ways in the vision that is the IOC. I attended the congress in 2013 in Johannesburg and was greatly disappointed to see what I felt was WADA reflecting back on the IOC in terms of a lot of way that that congress was run and the culture that came through it.

DR DIMEO: Thank you.

I think firstly what I would like to see is a team of international experts work through the World Anti-Doping Code and create a commentary. When is it going to appear?!

I think for me, personally, I came at this from a history perspective many years ago. Things have developed in such a way that the logic of anti-doping now is the logic of anti-doping in the 1960s: if we test someone we can find what they've taken, we can determine that they're a cheat; if they have won something over someone who didn't take that substance, they should be punished. To me, the world is a different place now and many of the cases that we're seeing are inadvertent, they are not performance enhancing, they are not deliberate, which makes me think we need to go back and actually understand the logic. What are we trying to achieve? Why are we trying to achieve it? Does it relate to athletes? Does it relate to fans? What do they want? To what extent are new technologies reshaping sports culture?

I think the IOC's role in this is to create a sense of Olympism, which is a slightly nostalgic post-amateur view of sport and has been embedded in the World Anti-Doping Code as the spirit of sport. I think all of that needs to be reassessed. And it is being reassessed by academics, but there's a lack of dialogue between academics and practitioners out of probably some mutual suspicion. I can't think why. So, that's where I would start.

PROFESSOR SANDS: I'm going to go over to some of our other colleagues, but can I also invite others to begin to reflect on their questions.

Can I just observe, Paul having just said the world of sport is a different place, I've just noted that every panel member this morning has been male; there is not yet a question from a non-male. It would be very nice to have some women's questions. And, may I add to that observation, in several dozen cases appointed in the CAS proceedings I believe that I have never sat with a female CAS arbitrator.

I think in 2017 that does not reflect the world we live in and it is time to really begin to address those issues.

MR COHEN: There have been many comments, but I think we need to think as to what we want. When I say we need to go full steam ahead it doesn't mean we need to continue the way it is done. There are many issues and I think we also need to reflect on what can be improved.

I really think that there's a lot to be improved. If we look just at the number of tests that's being done per year, there's approximately 300,000 tests being performed every year on this planet for less than 2,000 positives. I'll let you do the math, but it is about 1% positive. For the amount that one test costs, aren't we wasting quite a lot of money? So, I think that also there should be a reflection as to whether this is the way forward and perhaps there are better mechanisms right now.

The testing is one part, but we talked about the governance. What do we want? WADA has been established over a scandal, the Festina scandal in cycling. The IOC was pressured by the governments to do something, so they decided to create an independent anti-doping agency. The governments were not ready to finance it. It took them, I think, about four years to come together and say, okay, this is the money we will be able to put into WADA. So, IOC basically funded WADA at the beginning alone.

Today, 18 years later, (we spoke about minors), WADA became major, it is no longer a minor, it is a young adult, and I think it now knows a lot more clearly what needs to be done in the future, but there needs to be a clear discussion as to what should be the governance of WADA. Should it still be the governments of the world on one side and the sport movement on the other?

I know Joseph De Pencier also thinks that the NADOs should have a seat at the table. We talked about the athletes' involvement. Currently there are athletes at the table but are there enough?

Is there enough diversity? You talked about gender equality. So, these are issues that need to be raised.

PROFESSOR SANDS: How would you increase the role of athletes in the WADA process?

MR COHEN: I'm not in line with what was said, I'm sorry, by the athletes this morning. Coming from an international federation I know that some international federations have issues in addressing and integrating athletes into their decision-making processes but there's a lot of efforts being done and there's a lot of improvements. At UEFA, for example, every issue that concerns professional football is being discussed by the professional football strategy council, which is a body composed by equal representation of the leagues, the clubs, the national associations, and the players. At FIBA, athletes have a permanent seat on the board. So, they take decisions. Most Federations have athletes' committees, elected by the athletes themselves. But very often, and this was again mentioned today by one of the athletes, when you tell the athletes: «Okay, you're not happy about this and you're not happy about that, what should be the solution?» They say, «Oh, well, I don't have the solution but I think it should be different». So, I think it is also time for the athletes to come together and decide what they want for the future.

At WADA we have an athlete committee. They are very active, they are very vocal, and I think this is positive. And we have athletes in the board, but more generally should the funders only have a seat on the board, meaning the governments and the sports movement, or should we open it to academics, should we open it to medical doctors, physicians, athletes' entourage, etc...? These are questions that need to be raised.

Today we have a board of approximately 40 people. It is really hard to manoeuvre a boat with 40 people. You have a smaller Executive Committee composed equally of governments and sport representatives. And the statutes are very clear: the board members need to act independently. I've been to only one board meeting at WADA, but it has been the same all over the Federations that I've been through, every board member,

whenever they take the floor, they say, «Well, in my constituency», or «In the interest of my federation, I think that...». It is very clear at WADA, whenever the sports movement takes the microphone they say, «Well, as the sports movement we think that...». But they never think as WADA. Indeed, as a board member of WADA, I must represent WADA whenever I sit in the board, no longer my federation. I think it is perhaps part of the politics or the human nature, but it is really hard, I think, for them to make that difference and to wear a different hat. That, I think, needs to be resolved. Because you cannot move WADA and you cannot become more efficient if you have forever the board members speaking in their best interest.

PROFESSOR SANDS: Denis, I want to ask you, a couple of suggestions have been made, IOC's role in WADA, a question has been raised about IOC's role in the CAS, I just would be interested to hear your personal observations on what you've heard.

PROFESSOR OSWALD: There is an evolution towards more independence. For the first time at the games in Rio the doping violations were not assessed by our commission, IOC Disciplinary Commission, but directly by CAS, which is seen as more independent than our commission composed by IOC members. That's an evolution also for the future. But the idea to remove completely the IOC or the international federations from the process is totally unrealistic. Somebody has to know the situation in sport, has to understand it.

If you look at state courts, who elects the judges in state courts? Who pays for the functioning of the state court? It is the state. So, somebody has to take the responsibility and the lead to make sure that the system works, and doing it without the international federation, without the IOC, to me is unrealistic. Of course we can better balance the role of the different sport bodies and include more people from outside, but you have to keep a structure including sport federations and IOC.

PROFESSOR SANDS: Your views on what you've heard and responses to the questions.

PROFESSOR KAYSER: There is a paradoxical effect of anti-doping which will amplify itself if we go full steam ahead, which was one of the options we were given. This effect is the following: the harder we try to repress doping, the more we are and remain suspicious of extraordinary performance. So, it is quite terrible today to observe that whenever something special happens, the first thing that happens is that journalists call me

at the University of Lausanne, asking me: Can it be true? Must be doped? Unfortunately the only answer I can give is: I can't tell. Nobody can tell. Because control density is what it is. Can we go much further? We know that there is doping outside and we can't get rid of it. It is terrible. We kind of create a situation which spirals away and makes life harder and harder.

So, my very concrete proposal is this: let's get rid of this idea that it's against the spirit of sport. Come on. What is it being an athlete? Being lucky. You've got the right genes. Then, if you're in the right environment and you do whatever you can to improve your performance. What's so different between a hypobaric chamber and some EPO? Sure, there is an important argument that we have to take along, which is health. The pressure is such that we can expect that some athletes are crazy enough to do crazy things. So, why not just accept that doping is part of the spirit of sport but keep the health argument and really defend the health of the athletes? That's what's important to defend.

I don't think we defend the health of the athletes in an optimal way today, by the way. Think of American football. So, my idea is to ditch the first argument, «may» or «does» improve performance, accept it, it's part of sports, it is part of the profession of elite sports, ditch the spirit of sport argument, keep the health argument, keep the list to begin with exactly as it is today, but then one by one see what happens when you take off something that is on the list. Let's start with cannabis. It would be a good thing to try.

I'll stop there.

PROFESSOR SANDS: My word, this panel is just getting better and better. It is so exciting to be here.

I must say, I'm rather partial to paradoxical effects, because I've just written a book on the origins of crimes against humanity and genocide (East West Street) and rather come to the conclusion that the invention of the term «genocide» in the summer of 1945 by a Pole called Raphael Lemkin, has actually had the unwitting effect of giving rise to more genocide and having the opposite effect to that which it was intended to address. I think it is something that we know as lawyers, particularly those involved in academia, that any legislative effect has unintended consequences, and in a sense what you are putting on the table is whether the entire regulatory system actually contributes in unintended

ways to the very thing it is intended to address. That may or may not be right, but it is something that we all have to think about.

Next questions, please. I'm looking for a female. Yes! Finally!

ANNA KONDAKOVA: My question would be in part also to the last presentation as well. If they are concerned that the system is not working the way they want it to work, wouldn't the first step be to make it kind of public information what exactly these international federations and national anti-doping organisations are doing – or not doing – to open it to kind of things which is called a peer review in academia or a kind of public scrutiny. Because you are right, all the money here comes from fans, and fans need to trust that the athletes are clean, otherwise they don't want to support it any longer.

PROFESSOR SANDS: Just immediately next to you, because I think you had your hand up.

We'll have these two questions.

PROFESSOR DAVID COWAN: A very simple question. Does the panel feel enough is spent on anti-doping by sport?

PROFESSOR SANDS: One question on transparency. I have to say I'd add to that question, and I wouldn't mind hearing from our panel members, I'm putting it simply as a question, not expressing as a view, should CAS proceedings be public and be open for all to see? If we are going to go the transparency route, how far do we want to go? So, the question about transparency and public information, and the question about costs.

Let's start on the other side this time and go in reverse order. Let me start then with Bengt in these two questions.

PROFESSOR KAYSER: I don't know about CAS but I would like to make public the discussions on what's on the list and why.

PROFESSOR SANDS: Denis?

PROFESSOR OSWALD: Personally I have nothing against opening CAS hearings. The idea is to protect the athletes and not let the media come in and attend the audience. Criminal proceedings are open to public, and for me there is no other reason than protecting the athlete. But I think we have nothing to hide.

PROFESSOR SANDS: And money. There was a money question.

PROFESSOR OSWALD: Money question. I can tell you, I have been 25 years president of the international federation of rowing and you heard the rower this morning, he seems to be happy with what we have been doing. But anti-doping has been a big part of our budget and we would prefer to dedicate that money to development of our sport in some continents.

ANNA KONDAKOVA: I just want to clarify.

I didn't mean to open the proceedings, I meant, for example, that WADA publishes every year an annual report on what every country and every international federation did, but it is an annual report, it is aggregated figures. For example, RUSADA, because I come from RUSADA, we had huge numbers in the past. What does it tell us?

Nothing. We don't know if the right athlete has been tested, if the right athlete has been tested at the right time. If this data is available, both between different anti-doping organisations and to general public, to media, who can then challenge people and ask them why you are doing this or why you are not doing something else, it will probably help a lot. Also, it will help a lot of athletes, because athletes often feel that they are the only ones who are tested and their counterparts from other countries, they are not tested and therefore it is unfair to them. If you make it public, you remove these kinds of attitudes.

PROFESSOR SANDS: Ben, it would be good to hear from you on this.

MR COHEN: I agree with you. Generally, I'm in favour of transparency. At FIBA we created a Basketball Arbitral Tribunal where all decisions are made public.

PROFESSOR SANDS: The decisions or the proceedings?

MR COHEN: The decisions. Because there is no hearing, as a principle. As lawyers, I think we need to be careful with that because during proceedings, players' medical records are being discussed and I think that also poses a difficult, sensitive question as to whether you want people to have medical records in the public domain. Generally, I would be in favour of opening the proceedings. I have no problem with that.

Regarding the money, definitely I think that's also part of a governance question. What do you want WADA to be? Or the fight against doping in general? With a budget of

30 million annually, this is a joke. It is literally a joke. Lance Armstrong was making more money when he won the Tour de France than the entire budget of the World Anti-Doping Agency. So, if you want WADA to control doping and review decisions of sanctions every now and then, we can. If you want to eradicate doping, that's going to cost a lot more in terms of education, in terms of all the issues that have been raised.

Maybe one point, because we touched upon CAS, and I think that's also something for us lawyers to reflect upon, the proposal by the IOC to have CAS adjudicate all the cases of the IFs, I think it can open a dangerous door. If IOC is of the position that the IFs are no longer independent enough to decide on doping cases, basically this means that the same applies for all disciplinary cases. If a player punches a referee and gets a 10-game suspension, this then also becomes a decision that may be subject to conflict of interest. Therefore, if you open the door for doping then you open it for disciplinary cases and then you open it for all the decisions of the IFs. Are the IFs then able to take decisions on their own sports? Is sport able to police itself?

I think that's an interesting discussion to have as lawyers as well.

PROFESSOR SANDS: This side of the room.

DR DIMEO: I think the issue of transparency is really, really interesting.

I think that there's a lack of harmonisation about who gets tested, which sports, which countries.

Some athletes can go most of their career, never get tested, and therefore it creates a suspicion amongst clean athletes that other athletes have been allowed to dope.

But it is very difficult to get that information into the public domain and, therefore, even if it was in the public domain it is not all that clear, to me, anyway, who would be the interrogators of that data. You almost need some form of auditing commission to ask the question: are the right things being done in the right places?

I have had some personal dealings with WADA. For example, I had to sign a contract for a research project in which the contract says that they won't allow me to publish anything out of that project that goes against their objectives, even though they would not define what their objectives are. I've also had dealings with them when trying to do

research on compliance. So, although they publish the list of which countries are non-compliant, they refuse to give any further information as to how that decision is made or who does the investigation or anything.

Ben's point about the Scientific Committee, about who gets to put less drugs on the banned list, we don't know who is on the Committee, we don't know when they meet, we don't know what's discussed. Some people do, of course, but it is not public. So, I think there are huge, huge governance and policy and transparency issues. And I think the point was made earlier that the standards to which athletes have to keep up, because they're the role models and all of that, they're not being upheld by the organisations who control this.

MR FULLER: I'll just add a couple of points to that, particularly the connection between the transparency and you mentioned trust, the public trust and the public confidence, in those that are running sport.

It is obviously at an all-time low, I think, today, and that needs to be rebuilt. It is very hard to see how that is going to be rebuilt whilst we continue to have what normally gets cast as the 'Pale Male and Stale Brigade'. Philippe quite rightly mentioned the lack of female interaction on CAS. I come from a country; the only country in the world – where we have four professional football codes, and there's roughly 1,500 male professional footballers playing in Australia every year. And you have to go back to 1993 to find the one and only time that we had an out, gay football player.

Sport is inherently backward and unprogressive. It is stuck in the '50s. This comes back to the social interaction. And I'm ashamed, because of the implications for those players who are gay, who can't be themselves and the mental health implications and the problems that result. That's why I'm with Paul in terms of bust it down and rebuild it.

You don't have to bust it down completely but I think it needs a real shakeup. And thanks Philippe for bringing up the gender equity issue, because the gender equity issue along with the non-heterosexual community one is huge and gender identification too.

PROFESSOR SANDS: I think we have time for one more response, yes, of course. Let's just carry on then amongst ourselves.

PROFESSOR OSWALD: I don't want to prevent anybody to ask any questions, but I just would like to take a position to what Bengt has just said.

I think there is a fundamental right for a human being to practise sport with a legitimate ambition to win without being forced to dope. You heard this morning Lucas Tramer explaining how he felt to be in a sound environment, knowing that the opponents were using the same tool as they had and that only more training and better technique would help them to win. I think we cannot deprive the athletes from that legitimate right.

I agree with Bengt that we are not all equal. We get genes from our father, mother, and so on. But I think there is a distinction to make between the differences that we cannot control and the differences we can control and where we can have influence on.

As sport leaders, as international federations, national federations, we can make sure that everybody starts on the same starting line. That we can do. And all efforts, to me, should be made, even if it will never be perfect. Because it is not the same thing if you are born in one continent or another, if you have a poor family or a rich family, which allows you to dedicate more time to your training. I agree. But on that you have no or very little influence. But on the racing competition conditions, that you can influence and make sure that you have a level playing field.

PROFESSOR SANDS: I'm going to allow Bengt, because it is an interesting discussion the two of you are having.

PROFESSOR KAYSER: Yes, I must react, because this is, of course, the position in defence of what we might call 'the natural aristocracy', where, if you are unlucky enough not to have the right set of genes, stick to your position and don't dare to try to come up to the level with the others.

The so-called level playing field is a mirage. It is one we like – we love – and we should defend. I'm not here arguing against the Games or something, but we have to try to interpret it on its face value. So, this natural aristocracy, why not, if we like, to look at that?

But let's not defend this doping issue on that basis. I think we should accept that this level playing field is something really tricky, and if there are people that are willing to do more, even, like say take some risk and take some stuff, we should perhaps even see this as heroic character amplifying their willingness to do their best, even though they have this gene set that was maybe not optimal for what they are trying to achieve.

PROFESSOR SANDS: Final word to Paul.

DR DIMEO: It is a really interesting debate and I'm honoured to be part of it.

I think one point I would just like to make is, if anyone has an imagined view that anti-doping protects the health of athletes, then I suggest you look up the case of Kristen Worley, who was denied medical use of testosterone, and she has taken her case to the Court of Human Rights in Canada. The legislation has become too restrictive because we have an imagined sense of what's fair and imagined sense of what's healthy, and I think that's what I would like to see another discussion of, a wider discussion, about how people who do have genuine needs can be protected.

PROFESSOR SANDS: I'm deeply grateful to every member of the panel for introducing a range of topics that have caused us to think. I think that is the function of a decent panel. Antonio and his team have put together a fabulous panel.

Your last point reminds me of a case that I sat on recently with a colleague who's here today. It was an extraordinarily difficult case, involving the Paralympics, of a young man who had been authorised to take a drug on two occasions previously that basically kept him alive and allowed him to compete in his sport and in the Paralympics. But on the third application a few years down the line, to be authorised to take the drug for reasons that I'm sure were entirely proper, it was refused. So, he faced a choice at which he could continue taking the drug but no longer be involved in the exercise and activity that really kept him going or he could compete without the drug which would, of course, be impossible.

So, these are the kinds of dilemmas we face.

Anyone who says these issues are easy, I think just misunderstands – that is really not the case. We all in this room understand the deep complexities of these issues, and I'm just so hugely grateful to every member of the panel, with all their different perspectives, for sharing that with us. On behalf of all of you I thank them for their really wonderful contribution.

Thank you so much.

PROFESSOR ANTONIO RIGOZZI: Thank you, Philippe, for handling this panel the way you did. I think you have to leave, so thanks and good-bye. See you soon.

V. CLOSING REMARKS

PROFESSOR ANTONIO RIGOZZI: It is now time for the usual boring closing speech. It is basically to say thank you to everybody. Thank you to our speakers, thank you to our panellists, and a particularly warm thank you to our court reporter, Susan McIntyre. Also, and in particular, thank you to all of you. I have never seen this room late on a Saturday morning as full as this. Of course the quality of the last panel was probably one of the reasons why that happened.

When I say thank you to all of you, I have to particularly thank people who travelled from far away. We have people not only from around Europe, we have Russia, USA, Malaysia, Kenya, Qatar and I am certainly forgetting some. We are particularly proud that you made your way up to Macolin, despite the remote location and everything. We hope that we made your journey as easy as possible.

I also, of course, have to thank our partners, the list of day one. It is, of course, University of Neuchâtel; the associated CIES, in particular Denis Oswald, he agreed to help us and to come and participate in the panel; BASPO, the Swiss Federal Office of Sport, our host and sponsor here today; Swiss Antidoping and its director Matthias Kamber who contributed also personally with a lot of input during these last two days.

The presentations and the debates were lively but Susan McIntyre, our stenotypist, who managed to follow relentlessly and to produce a transcript of everything that was said. This generous contribution will serve as the basis for a publication that you shall receive in the next couple of months – any delay will be the fault of the editors and certainly not Susan's.

I shall not forget our volunteers – I got a comment that the colour of their polo was more <AG2R> than <Team Sky> as I somehow provocatively suggested yesterday morning. Anyway, you were wonderful and a lot of our guests told me that you made their life much easier – and not only at the Bienne train station. Nor shall I leave out Charlotte Perret, who worked with us over the last few months to help organize and coordinate the logistics behind this event – and who has impressively served as the mission

control for the last two days, ensuring that all things ran more smoothly than we could have even hoped for. A sincere thank you.

Finally, I have to warmly thank Emily and Marjolaine. They are the driving force behind this project. My friend Jaimie Fuller brought up gender equality in the last session; I think they will agree that this is a female-driven project... I'm just the guy here. Seriously, you know what my main contribution to this conference was? I picked this picture, which is also on the program and the flyer and which will certainly be on the book. There is a reason for this picture, I'll come back to that.



Actually there is another contribution I made: I pushed for the word «summit» in the title of the conference. In Switzerland, we are used to be low profile and «summit» is certainly not low profile. You heard Lucas Tramèr introducing himself this morning; he won a gold medal in Rio and he said, «Oh, I participated in the Rio Olympics». That's what he said. That's what Switzerland is about. With this in mind, I said, let's go for «summit». There has recently been a self-declared «*Olympic summit*», let's have an anti-doping summit. If it doesn't work out, we can still say that this is because we gathered here in Macolin up in the mountain. But then when I look back to the quality of the presentations, to the questions and also to the list of participants, I think that the word «summit» was well deserved and this was particularly thanks to all of you.

Now, going back to the picture and the mountain. Being involved in anti-doping since the enactment of the first WADA Code, the recent events made me think that it was probably the right time to pause a moment; to look back at what has been done and reflect on the future, especially since the next revision of the WADA Code is just around the corner. To look back, of course, requires a privileged position, a high vantage point, hence the alpinist here in the picture, looking off to the horizon. You notice that the sun is shining, but the clouds are not far away. And the weather in the mountain can change very quickly – you now have first-hand knowledge of that by looking out the window. And what happened with Russia showed us that things can also change very quickly in anti-doping. I don't have the kind of experience that Denis has but my impression is that we – and I say deliberately «we» – we always react, we don't anticipate. If everybody comes out of this room with a few ideas that would allow them to push their project, their agenda forward, this Summit would truly have accomplished something. I'm confident that now, with the great privilege of having heard the views that were exchanged here in this room over the past two days, and yesterday night at the bar. I'm sure that we will be able to make this anti-doping system better.