



Arbitration CAS 2000/A/274 S. / Fédération Internationale de Natation (FINA), award of 19 October 2000

Panel: Mr. Yves Fortier QC (Canada), President; Prof. Massimo Coccia (Italy); Mr. Denis Oswald (Switzerland)

Swimming

Doping (testosterone)

Burden of proof

Right to be heard

Prohibition of the retroactive application of substantive rules

1. The fundamental evidentiary nature of the IRMS Rule is not altered by the fact that this provision precludes athletes from raising a defence based upon evidence of a physiological or pathological condition. The T/E Rule only permits such a defence because an elevated T/E ratio does not constitute direct and conclusive evidence of the exogenous administration of testosterone. There may be other physiological or pathological reasons for an elevated T/E ratio. By contrast, IRMS analysis provides direct evidence of the exogenous administration of testosterone and, accordingly, there is no place for such a defence under the IRMS Rule.
2. Where a party adopts a position contrary to one it has previously taken, its conduct may constitute an abuse of right when the other party has relied on the initial position to its detriment. The prohibition against *venire contra factum proprium* does not however preclude a party from tendering new evidence or raising new arguments in an appeals arbitration procedure.
3. Under the Swiss Private Law Act, the right to be heard in adversarial proceedings specifically guarantees each party's right to participate in the evidentiary proceedings, to rebut allegations made by the opposite party, to examine and criticize evidence adduced by the opposite party and to bring its own evidence in rebuttal before an award is rendered to its detriment. However, a party must immediately protest if it considers that its right to be heard has been violated, failing which, the party shall be deemed to have waived the right to protest at a later stage.
4. In general, it is necessary to apply the laws, regulations or rules that were in force at the time that the facts at issue occurred. This general principle is, however, subject to several exceptions, including an exception for laws or rules that are procedural in nature. In the absence of an express provision to the contrary, laws and rules relating to procedural matters apply immediately upon entering into force and regardless of when the facts at issue occurred.

The Appellant, S., is a competitive swimmer licensed by the Italian Swimming Federation.

The Respondent, Fédération Internationale de Natation Amateur (“FINA”), is the international federation governing the sport of swimming world-wide. FINA has its seat in Lausanne, Switzerland. The Italian Swimming Federation is a Member Federation of FINA.

The FINA Doping Control Rules principally applicable to this appeal are those contained in the FINA Handbook 1998 – 2000, as supplemented by the FINA Guidelines of Doping Control (the “Old Rules”).

It is, however, common ground between the parties that the FINA Doping Control Rules which entered into force on 1 June 1999 (the “New Rules”) do not differ materially from the Old Rules, with the exception of one particular provision highlighted below. Accordingly, for ease of reference, the Old Rules and the New Rules shall be referred to collectively as the “FINA Doping Control Rules” and, unless otherwise specified, the numbering of the New Rules shall be employed.

The following extracts of the provisions of the FINA Doping Control Rules are relevant to the issues in this appeal:

- (a) Rule DC 1.1 [DC 1 of the Old Rules]: “*Doping is strictly forbidden as a violation of FINA Rules.*”
- (b) Rule DC 2.1 [DC 1.2 (a) of the Old Rules]: “*Doping offences are: (a) the finding of a prohibited substance (DC 3.1) within a competitor’s body tissue or fluids;*”
- (c) Rule DC 3.1: “*Except as set forth in DC 3.5, the following classes of substances shall be prohibited when found in competition testing:*”
- (d) Rule DC 3.2: “*Appendix A to these Doping Control Rules more specifically identifies the substances prohibited by FINA in competition*” [DC 2.1 of the Old Rules referred to the list of the banned substances attached as Appendix 1 to the FINA Guidelines of Doping Control].
- (d) Appendix A identifies the list of the prohibited substances referred to by DC 3.2. Under Class C.1 “*Anabolic androgenic steroids*”, the prohibited substance “*testosterone*” has the following footnote (the “T/E Rule”): “*The presence of a testosterone (T) to epitestosterone (E) ratio greater than six (6) to one (1) in the urine of a competitor constitutes an offence unless there is evidence that this ratio is due to a physiological or pathological condition, e.g. low Epitestosterone excretion, androgen producing tumour, enzyme deficiencies*”.
- (e) Rule DC 8.3.2 [DC 8.1 of the Old Rules]: “*Analysis of all samples shall be done in laboratories accredited by the IOC. Such laboratories shall be presumed to have conducted tests and analyses of samples in accordance with the highest scientific standards and the results of such analyses shall be presumed to be scientifically correct. Such laboratories shall be presumed to have conducted custodial procedures in accordance with prevailing and acceptable standards of care; these presumptions may be rebutted by evidence to the contrary*” [DC 8.1 of the Old Rules ends with the following text: “*but there shall be no burden on the laboratory in the first instance to establish its procedures*”].

- (f) Rule DC 8.3.8 [DC 8.5 of the Old Rules]: *‘If the B sample proves negative, the entire test shall be considered negative and the competitor, his Federation and FINA shall be so informed’.*
- (g) Rule DC 9.1.5 [DC 8.7 of the Old Rules]: *‘The right to a hearing related to an offence under DC 9.1 can involve only:*
- (a) *whether the correct body tissue or fluid has been analysed;*
 - (b) *whether the body tissue or fluid has deteriorated or been contaminated;*
 - (c) *whether the laboratory analysis was correctly conducted;*
 - (d) *whether the minimum suspension for a first offence should be exceeded;*
 - (e) *whether a minimum sanction can be lessened in accordance with DC 9.10’* [DC 8.7(e) of the Old Rules reads as follows: *‘whether the retroactive sanction for a first offence shall be less than six (6) months’*].

The New Rules contain the following additional provision in Appendix A under Class C.1 *‘Anabolic androgenic steroids’*, the applicability of which is in issue in this appeal (the “IRMS Rule”): *‘Evidence obtained from metabolic profiles or isotopic ratio measurements may be used to draw definitive conclusions regarding anabolic androgenic steroids’.*

On 22-24 January 1999, S. competed in Lyon, France. In the course of this competition, S. underwent a routine doping control on 24 January 1999.

The urine collected from S. was placed in two sealed bottles (the “A” and “B” samples). These samples were then submitted for analysis to an IOC-accredited laboratory, Laboratoire National de Dépistage du Dopage, in Châtenay-Malabry, France (the “Laboratory”).

The Laboratory carried out an analysis of the “A” sample on 17 February 1999 and reported the following results in its report dated 18 February 1999:

Conclusions:

T/E Ratio = 6.9 (d = 1.019) - Testosterone = 745 ng/ml - Epitestosterone = 108 ng/ml

Isotopic signature derived from metabolites, of an administration of testosterone or one of its precursors

NB: Screening:

Androsterone 13980 ng/ml - Etiocholanolone 14600 ng/ml

[translation from French]

At the request of S. and the Italian Swimming Federation, the Laboratory subsequently analysed the “B” sample, on 9-10 June 1999, and reported the following results in its report dated 11 June 1999:

Conclusion:

The analytical studies conducted on Wednesday 9 and Thursday 10 June 1999 within the framework of this counter-analysis requested by the Italian Swimming Federation have evidenced a very high urinary concentration of testosterone (545 ng/ml), a T/E ratio of 7.9 and an impoverishment in the ¹³C of metabolites 5α- and 5β-androstanediols, which confirms the results of the first analysis and indicates an administration of testosterone or one of its precursor [translation from French].

By letter dated 23 February 1999, FINA reported the positive test results set out in the Laboratory's report dated 18 February 1999 to the Italian Swimming Federation. As this case fell within the jurisdiction of the national federation, FINA requested that the Italian Swimming Federation investigate the matter and report back with its decision concerning the findings against S.

The Italian Swimming Federation thereafter initiated a medical investigation, including a longitudinal hormonal study of S. This longitudinal hormonal study involved the analysis of urine tests conducted prior to 24 January 1999 and several subsequent urine tests conducted over the course of 1999.

After reviewing the results of this medical investigation, the Italian Swimming Federation advised FINA, by letter dated 3 February 2000, of its conclusion that the elevated T/E ratio of S. reported by the Laboratory in its reports dated 18 February and 11 June 1999 "*can be due to a pathological condition*". Based on this conclusion, the Italian Swimming Federation decided not to sanction S.

On 19 February 2000, after consultation with the FINA Doping Control Review Board, the FINA Bureau Executive decided that the Italian Swimming Federation had not applied the FINA Doping Control Rules correctly and that it had erred in deciding not to sanction S. In accordance with Rule C 18.7 of the FINA Constitution, the FINA Bureau Executive therefore called for a hearing before the FINA Doping Panel to review the decision of the Italian Swimming Federation.

On 25 March 2000, the FINA Doping Panel conducted a hearing into this matter and rendered the following decision (the "FINA Doping Decision"):

The athlete is found to have committed a doping offence under FINA Rules DC 2.1(a) and DC 9.1.1.

She shall be suspended for four (4) years commencing on 25 March 2000. All results achieved by the swimmer within a period of six (6) months before 24 January 1999 shall be cancelled. This judgement shall become effective immediately. The swimmer shall be responsible for all costs related to this case with the exception of the costs of the Panel and the members of the Panel.

Under cover of a letter dated 6 April 2000, FINA delivered the full reasons for the FINA Doping Panel Decision to S.

In its reasons, the FINA Doping Panel emphasised that S. did not raise any complaint in regard to: (a) the identification of the samples; (b) the procedures for the collection of the samples and their transportation to the Laboratory; or (c) the correctness of the analysis of the "A" and "B" samples.

Instead, S.'s position was based upon the differences in the results of the analyses of the "A" and "B" samples. Specifically, S. relied upon the written expert report of Prof. Pietro Melchiorri, which concluded that "*these differences do not fall within the limits of the analytic errors declared*".

In addition, S. relied upon the expert evidence of Dr. Marco Bonifazi, who testified regarding her medical history and the medical investigations carried out on her between March and July 1999, including the longitudinal hormonal study. The following excerpt from Dr. Bonifazi's evidence is set out in the FINA Doping Panel's Decision:

In conclusion, medical investigations on the swimmer indicate a condition of temporary anovulation (some months) with lowered blood levels of LH, FSH and Estrogen and elevated blood levels of Testosterone precursors in association with a diagnosis of micropolycystic ovaries. This pathological condition can affect the T/E ratio in urine samples. [...]

In the swimmer in question this condition probably occurred contemporaneously and immediately subsequent to the finding of the altered T/E ratio.

S. assured the FINA Doping Panel that she had not taken any hormonal drugs or any precursor containing hormones.

In its decision, the FINA Doping Panel noted that Dr. Bonifazi's evidence was challenged by Prof. Jordi Segura, an expert witness called by FINA. Prof. Segura stated that the conclusion reached by Dr. Bonifazi was most unlikely. He testified that the analysis of the "A" sample in regard to androsterone (13980 ng/ml) and etiocholanolone (14600 ng/ml) indicated that the swimmer must have taken some precursors with hormonal ingredients. Prof. Segura also stated that, at a theoretical level, there were several good reasons that could explain the differences between the analyses of the "A" and "B" samples, though he was unable to specify the exact reason in this case without more detailed test results.

After summarising the evidence on record, the FINA Doping Panel turned to the applicable rules. It found that the Old Rules were applicable because the doping control at issue took place on 24 January 1999. It further held that the New Rules would only apply according to the principle of "*lex mitior*".

The FINA Doping Panel went on to state the following:

The confirmed result of the doping control test, carried out on the swimmer constitutes evidence of a finding of a prohibited substance as defined by FINA Rule DC 2.1. Testosterone falls under the classification of anabolic androgenic steroids.

The presence of a Testosterone (T) to Epitestosterone (E) ratio of greater than six (6) to one (1) in the urine of a swimmer constitutes an offence unless there is evidence that this ratio is due to physiological or pathological condition. However, as the presence of a the [sic] prohibited substance Testosterone in the urine of the swimmer has been established, the burden of proof shifts to the competitor to bring evidence that the T/E ratio of more than six (6) to one (1) is due to physiological or pathological condition.

With respect to the validity of the doping control, the FINA Doping Panel rejected S.'s position that the differences between the results of the analyses of the "A" and "B" samples cast doubt upon the positive finding of doping.

Having concluded that there was sufficient evidence of a T/E ratio greater than six (6) to one (1), the FINA Doping Panel went on to rule that S. had failed to satisfy the burden of proving that this elevated T/E ratio was due to a physiological or pathological condition. It found that the expert evidence of Dr. Bonifazi only established "*the possibility of a pathological condition, which might have affected the T/E ratio*", and that such an "*unverified hypothesis*" could not be considered "evidence", as that

term is used in Appendix A to the FINA Doping Control Rules, that the swimmer's reported T/E ratio of more than six (6) to one (1) was due to a physiological or pathological condition.

On the basis of the above reasoning, the FINA Doping Panel concluded that S. had committed a doping offence under FINA Rules DC 2.1(a) and DC 9.1.1. It should, however, be noted that the FINA Doping Decision was based entirely upon the finding that S.'s T/E ratio exceeded the accepted limit of six (6) to one (1). While there is some reference to the longitudinal hormonal study carried out on S., the FINA Doping Panel did not rely upon this evidence in reaching its decision. Most significantly, FINA did not raise, and the FINA Doping Panel did not refer to or rely on in any way whatsoever, the Laboratory's isotopic ratio measurements ("IRMS") of the "A" and "B" samples which, according to its 18 February and 11 June reports, indicated the administration of testosterone or a testosterone precursor.

On 4 May 2000, S. filed a Statement of Appeal against the FINA Doping Panel Decision with the Court of Arbitration for Sport (the "CAS"), pursuant to, and within the time limit prescribed in, Rule C 10.8.3 of the FINA Constitution and art. R47 of the Code of Sports-related Arbitration (the "CAS Code").

On 15 May 2000, the Appellant filed an Appeal Brief with supporting exhibits, in accordance with art. R51 of the CAS Code.

On 9 June 2000, FINA filed an Answer, with supporting exhibits.

At the hearing on 14 July 2000, the Panel heard the oral submissions of counsel for the parties as well as the expert evidence of Prof. Mario Serio (University of Florence, called by the Appellant) and Prof. Jacques de Ceaurriz (Director General of the Laboratory, called by FINA). Each expert witness was questioned by counsel for the parties and by the Panel. Prof. de Ceaurriz was unable to attend the hearing in person due to other professional commitments and, with the consent of Appellant's counsel, was heard by telephone. In addition, the Appellant's counsel expressly waived his right to question Prof. Jordi Segura, the other expert witness relied upon by FINA in its written submissions.

In her Appeal Brief and in oral submissions, the Appellant advanced three main submissions:

- (a) FINA has failed to prove the existence of a T/E ratio greater than six (6) to one (1);
- (b) there is sufficient evidence to establish that the T/E ratio greater than six (6) to one (1), if any, was due to a physiological or pathological condition; and
- (c) FINA is not entitled to rely on the IRMS analysis in this appeal.

In the Answer and in oral submissions, FINA has asserted three principal claims:

- (a) the Panel has full power to review the facts and the law;
- (b) the IRMS analysis constitutes positive direct evidence of a doping offence; and
- (c) the T/E ratio of greater than six (6) to one (1) and the longitudinal hormonal study constitute positive corroborative evidence of a doping offence.

LAW

1. The jurisdiction of the CAS and the Panel arise out the provisions of the CAS Code and the FINA Constitution.
2. Art. R47 of the CAS Code provides the following in respect of appeal arbitration proceedings:
A party may appeal from the decision of a disciplinary tribunal or similar body of a federation, association or sports body, insofar as the statutes or regulations of the said body so provide or as the parties have concluded a specific arbitration agreement and insofar as the appellant has exhausted the legal remedies available to him prior to the appeal, in accordance with the statutes or regulations of the said sports body.
3. Rule C 10.8.3 of the FINA Constitution provides the following in respect of appeals against decisions of the FINA Doping Panel:
An appeal against a decision by the Bureau or the FINA Doping Panel shall be referred to the Court of Arbitration for Sports (CAS), Lausanne, Switzerland, within the same term as in C 10.8.2. The only appeal from a decision of the Doping Panel shall be to the CAS. The CAS shall also have exclusive jurisdiction over interlocutory orders and no other court or tribunal shall have authority to issue interlocutory orders relating to matter before the CAS. Decisions by the CAS shall be final and binding, subject only to the provisions of the Swiss Private International Law Act, section 190.
4. In view of Rule C 10.8.3 of the FINA Constitution, it is clear that the Appellant's appeal against the FINA Doping Decision meets the jurisdictional requirements set out in art. R47 of the CAS Code.
5. Furthermore, the parties expressly confirmed the jurisdiction of the CAS and the composition of the Panel by duly countersigning the Order of Procedure.
6. In accordance with art. R28 of the CAS Code, the seat of this appeal arbitration procedure is Lausanne, Switzerland. The parties expressly confirmed this choice of seat by duly countersigning the Order of Procedure.
7. In accordance with art. R29 of the CAS Code, the language of this appeal arbitration procedure is English. The parties expressly confirmed this choice of language by duly countersigning the Order of Procedure.
8. The applicable procedure is that specified for appeal arbitration proceedings in art. R47 *et seq.* of the CAS Code and in the Order of Procedure.
9. Art. R57 of the CAS Code provides the following in respect of the Panel's scope of review:
"The Panel shall have full power to review the facts and the law." Accordingly, the Panel is not bound

by the evidence adduced before, or the factual or legal findings of, any other body or court which has ruled on this case.

10. With respect to appeal arbitration proceedings, art. R58 of the CAS Code provides the following in regard to the applicable law:

Law Applicable

The Panel shall decide the dispute according to the applicable regulations and the rules of law chosen by the parties or, in the absence of such a choice, according to the law of the country in which the federation, association or sports body which has issued the challenged decision is domiciled.

11. The “*applicable regulations*” in this case are the FINA Doping Control Rules referred to above in Section 1.2. Those rules do not specify any choice of law in respect of an appeal to the CAS or otherwise.
12. In the absence of a choice of law by the parties, art. R58 of the CAS Code stipulates that the law of the country in which FINA is domiciled shall apply. Article C 1.1 of the FINA Constitution provides that “[t]he site of FINA shall be located in the City of Lausanne, Switzerland”. Accordingly, the Panel shall apply Swiss law.
13. The Panel finds that the offence at issue in this appeal is that set out in FINA Rule DC 2.1(a): “*the finding of a prohibited substance (DC 3.1) within a competitor’s body tissue or fluids*”.
14. FINA bears the burden of proving the presence of a prohibited substance within the Appellant’s body tissue or fluids, and the standard of proof to be met is high: *M. & M. v. FINA*, CAS 99/A/234 and CAS 99/A/235, paras. 4.2 and 4.3.
15. For the following reasons, the Panel has concluded that FINA has satisfied its burden of proving that the Appellant committed a doping offence under FINA Rule DC 2.1(a):
- (a) IRMS analysis provides direct and conclusive evidence of an exogenous administration of the prohibited substance testosterone by the Appellant;
 - (b) the Panel is entitled to rely upon the IRMS analysis in the circumstances of this case; and
 - (c) the Appellant’s elevated T/E ratio and longitudinal hormonal study provide corroborative evidence of an exogenous administration of testosterone.
16. Based upon the evidence on record, and as explained more fully below, the Panel finds that FINA has demonstrated with the requisite degree of certainty that the IRMS analysis in this case provides direct and conclusive evidence of an exogenous administration of testosterone by the Appellant.
17. With respect to the specific facts of this case, the Laboratory performed IRMS analysis on the “A” sample and the “B” sample collected from the Appellant on 24 January 1999. The results of the IRMS analysis of both samples established an exogenous administration of testosterone

or one its precursors (Laboratory Report dated 18 February 1999; Laboratory Report dated 11 June 1999). Under Appendix A to the FINA Doping Control Rules, testosterone and testosterone precursors such as androstenedione, as well as “*related substances*”, are specifically identified as “*prohibited substances*” for the purpose of FINA Rule DC 2.1(a). Accordingly, the IRMS analysis has established the presence of the prohibited substance testosterone in both the “A” and “B” samples, as required under the FINA Doping Control Rules.

18. The results of the Laboratory’s IRMS analysis have been expressly confirmed by the uncontroverted expert evidence of Prof. de Ceaurriz, Director General of Laboratory, both in his testimony at the hearing and in his written expert report dated 17 May 2000:

I confirm that the result of the isotopic analysis of carbon effected on sample 139708 does constitute proof of an administration of testosterone or one of its precursors. An impoverishment of the stable isotope ¹³C allows one to draw this conclusion from a punctual sample [translation from French].

19. The results of the IRMS analysis have also been confirmed by Prof. Segura in his written expert report dated 17 May 2000:

[T]he isotope ratio measurement indicates the administration of an exogenous substance related to testosterone. Considering the additional data obtained by the laboratory in Paris regarding the concentrations of the main metabolites of testosterone (androsterone and etiocholanolone), only the administration of androstenedione is known, to our knowledge, to produce simultaneously the observed concentrations and the high T/E ratio. It is important to recall that androstenedione is also included in the list of prohibited substances, as is testosterone itself.

20. While not in force at the time of the doping control at issue, the Panel considers the IRMS Rule to be compelling evidence that IRMS analysis is a scientifically conclusive method for proving doping:

Evidence obtained from metabolic profiles or isotopic ratio measurements may be used to draw definitive conclusions regarding anabolic androgenic steroids.

21. Presumably, the FINA drafters used the permissive wording “*may be used*” rather than the mandatory wording “*shall be used*” due to the fact that IRMS analysis is only one method for proving the exogenous administration of testosterone and is not, as submitted by FINA, universally available. The T/E Rule is another method specifically recognised under the FINA Doping Control Rules.

22. The question of whether the Panel is entitled to apply the IRMS Rule to the facts of this case is considered below. For present purposes, it suffices to remark that FINA’s enactment of the IRMS Rule constitutes strong evidence that the international scientific community has determined IRMS analysis to be a conclusive method for determining the exogenous administration of testosterone. The Panel considers it highly unlikely that FINA would have enacted such a rule in the absence of a clear scientific consensus on the reliability of IRMS analysis.

23. In addition to the IRMS Rule, FINA has tendered the expert evidence of Prof. de Ceaurriz. In his expert reports and testimony at the hearing, Prof. de Ceaurriz has explained that IRMS analysis involves a comparison of the differences between the Carbon 13 isotope of endogenous and exogenous testosterone. Through this process, IRMS analysis provides direct and conclusive scientific evidence of the presence of exogenous testosterone.
24. At the hearing, Prof. de Ceaurriz gave the following testimony with respect to the conclusive character of IRMS analysis:

Following the Olympic Games in Nagano, IRMS analysis became widely accepted as a free-standing method for determining the presence of exogenous testosterone.

[...] Based on IRMS analysis, we can completely exclude the possibility of an endogenous cause for high testosterone. Athletes have no defence to a positive IRMS finding. It provides a much higher degree of certainty than the T/E ratio; there is no ambiguity in IRMS analysis.
25. Prof. Ceaurriz's evidence is uncontroverted on these points. Furthermore, apart from raising the question of degradation, the Appellant has tendered no evidence to challenge FINA's position that IRMS analysis provides conclusive scientific evidence of an exogenous administration of testosterone.
26. In the opinion of the Panel, the Appellant has made a persuasive case that the "B" sample was affected by degradation. Taken together, the expert evidence of Prof. Melchiorri, Prof. Serio, Prof. Gärtner and Prof. de Ceaurriz clearly establishes that the coefficients of variation between the T/E ratios found in the "A" sample and the "B" sample fall outside of the acceptable range for clinical studies. While various possible explanations for this variation were offered, the Appellant's expert witnesses all agreed that degradation of the "B" sample was the most likely explanation for the differences between the T/E ratios. Indeed, even Prof. de Ceaurriz, Director General of the Laboratory, conceded that degradation was undoubtedly one possible explanation for these differences.
27. Notwithstanding this evidence, the Panel has concluded that a finding of degradation does not cast any doubt on the scientific reliability of the IRMS analysis. This is because the Appellant has failed to tender any expert evidence that might establish that degradation would have an adverse impact on IRMS analysis. There is simply no evidence of any kind on record to support such a contention.
28. Rather, the evidence on record firmly establishes that IRMS analysis is not affected by degradation. At the hearing, Prof. Serio and Prof. de Ceaurriz both testified that the process of degradation could not create a prohibited substance that is not otherwise present in the urine sample of an athlete. Given the fact that IRMS analysis directly detects the presence of a prohibited substance, it is clear that degradation could have no impact whatsoever on the accuracy of this method of analysis. In view of this evidence, the Panel is convinced that any degradation which may have occurred did not cause, or in any way qualify or mitigate, the positive results of the IRMS analysis.

29. For the above reasons, the Panel finds that the IRMS analysis performed on the “A” sample and the “B” sample provides conclusive scientific evidence of an exogenous administration of the prohibited substance testosterone or one of its precursors.
30. Having made this finding, however, it nonetheless remains for the Panel to determine whether it is entitled to rely upon the IRMS analysis in the circumstances of this case.
31. From the perspective of the Panel, the most difficult and troubling aspect of this case is that FINA has raised the issue of IRMS analysis, and seeks to rely on the results of such analysis, for the first time, in this appeal to the CAS.
32. The results of the IRMS analysis were set out in clear and unambiguous terms in the Laboratory’s first report dated 18 February 1999. Despite this fact, neither the Italian Swimming Federation, a Member Federation of FINA, nor FINA itself made any reference whatsoever to the IRMS analysis during a review process which lasted over one year and culminated in a hearing before, and decision by, the FINA Doping Panel. It was only when faced with the Appellant’s appeal to the CAS that FINA finally chose to raise the IRMS analysis, in an effort to bolster its case in support of the FINA Doping Panel’s finding that a doping offence had been committed.
33. The Panel is concerned by FINA’s decision to raise new claims that significantly alter the nature of its case at this late stage of the doping control procedure. At the hearing, FINA’s counsel acknowledged that it was regrettable that the IRMS analysis had not been raised earlier. He was not, however, able to offer any explanation for FINA’s conduct, other than to suggest that because IRMS analysis is a relatively new procedure certain members of FINA may not have been entirely familiar with it.
34. The Panel does not consider this explanation to be satisfactory and questions whether FINA’s conduct is consistent with the principle of good faith which should characterise all dealings between international sports federations and the athletes within their jurisdiction.
35. In the context of this appeal, the Panel finds that FINA’s conduct gives rise to the following two specific questions: (a) Is FINA precluded from raising the IRMS analysis for the first time in this appeal, under the doctrine of estoppel? (b) Do the principles of procedural fairness preclude the Panel from relying upon the IRMS analysis in the circumstances of this case?
36. The Appellant submits that, under the doctrine of estoppel, FINA should be precluded from raising the IRMS results for the first time at this late stage of the doping control procedure.
37. The prohibition against *venire contra factum proprium*, often compared to the common law principle of estoppel, is widely recognised under Swiss law. This prohibition is based upon the concept of abuse of right under Article 2 of the Swiss Civil Code. Where a party adopts a position contrary to one it has previously taken, its conduct may constitute an abuse of right when the other party has relied on the initial position to its detriment: TUOR/SCHNYDER/SCHMID, *Das schweizerische Zivilgesetzbuch*, 11th ed., Zurich 1995, p. 57; H.

MERZ, *Berner Kommentar, Kommentar zum schweizerischen Zivilrecht*, Band I, Bern 1962, re: Art. 2 Swiss Civil Code, notes 402-403.

38. As a strict legal matter, however, the Panel does not consider that the prohibition against *venire contra factum proprium* precludes a party from tendering new evidence or raising new arguments in an appeal arbitration proceeding of this type.
39. Under art. R57 of the CAS Code, the Panel is expressly granted full power to review the facts and the law. It follows from this broad scope of review that the parties are not restricted to the evidence adduced, or bound by the arguments advanced, in the proceedings below. The Panel must examine the case *ab novo* and, accordingly, must consider all of the evidence and arguments before it, including those relating to the IRMS analysis.
40. In any event, there is no evidence to suggest that FINA provided any assurances or made representations to the Appellant, express or implied, to the effect that it would not raise the IRMS analysis; nor is there any evidence that the Appellant relied upon any such assurances or representations.
41. The question at issue therefore, is one of procedural fairness: has the Appellant been given a full opportunity to address the IRMS analysis in this appeal?
42. Although this question was not specifically raised by the parties, the Panel must determine whether the principles of procedural fairness preclude it from relying on the IRMS analysis in the circumstances of this case.
43. The Swiss *Tribunal Fédéral* has held that CAS arbitrations, having their seat in Lausanne, Switzerland, are governed by, and subject to review under, the Swiss *Private International Law Act* (ATF 119 II 271). The applicability of this statute to appeal arbitration proceedings such as the present one is also expressly recognised in Rule C 10.8.3 of the FINA Constitution.
44. Pursuant to Articles 182(3) and 190(2)(d) of the Swiss *Private International Law Act*, the Panel must guarantee equal treatment of the parties and the right of both parties to be heard in adversarial proceedings. In other words, the Panel must act in accordance with the principles of procedural fairness or due process.
45. Under the Swiss *Private International Law Act*, the right to be heard in adversarial proceedings specifically guarantees each party's right to participate in the evidentiary proceedings, to rebut allegations made by the opposite party, to examine and criticize evidence adduced by the opposite party and to bring its own evidence in rebuttal before an award is rendered to its detriment (Bull. ASA 1999, 537, 541-542; Bull. ASA 1998, 118, 125; Bull. ASA 1998, 653, 658; Bull. ASA 1997, 291, 306; ATF 119 II 386, 388-390; ATF 117 II 346, 347-348; ATF 116 II 639, 642-643).
46. The Swiss *Tribunal Fédéral* has, however, consistently held that a party must immediately protest if it considers that its right to be heard has been violated, failing which the party shall

be deemed to have waived the right to protest at a later stage (Bull. ASA 2000, 96, 102; ATF 119 II 386).

47. Turning to the facts of this case, the Panel must consider the following questions. First, has the Appellant been given full opportunity to address the IRMS analysis in this appeal? Second, if a different procedure had been followed, would the outcome of this appeal have been any different?
48. As regards the first question, the Panel notes that the Appellant raised no objection in connection with the procedure followed in this appeal as it concerns the matter of IRMS analysis:
 - (a) Professor Serio, an internationally recognised authority in the field, was called by the Appellant to testify as an expert witness at the hearing and was questioned by Appellant's counsel on the IRMS issue.
 - (b) Appellant's counsel was given the opportunity to make, and did in fact make, extensive oral submissions in regard to the nature, reliability and applicability of IRMS analysis in this case.
 - (c) At the conclusion of the hearing, the Appellant's counsel expressly confirmed that his client had been provided with a full and fair hearing.

In these circumstances, the Panel is satisfied that the Appellant has been afforded a full opportunity to address the IRMS analysis.

49. Second, the Panel considers that the outcome of this appeal would have been not different even if a different procedure had been followed:
 - (a) As discussed above, in Section 3.4, the evidence on record clearly establishes that the IRMS analysis provides conclusive scientific evidence of a doping offence in this case. Prof. Serio and Prof. de Ceauriz both testified that the degradation of the "B" sample could not have created the presence of a prohibited substance and thus, could not have affected the reliability of the IRMS analysis. In view of this evidence, it is highly unlikely that the Appellant would have been able to challenge the validity of the IRMS results, whether through expert evidence or otherwise, even if she had requested and been given an additional opportunity to do so.
 - (b) As discussed below, the IRMS analysis in this case is corroborated by the high levels of testosterone detected in the "A" and "B" samples and by the results of the longitudinal hormonal study of the Appellant. This corroborative evidence further supports the finding that the IRMS analysis provides conclusive scientific evidence of doping.
50. For all of the above reasons, the Panel has concluded that the principles of procedural fairness have been fully respected in these proceedings and, in particular, that Appellant was given a full opportunity to address all of the evidence adduced against her, including the IRMS results.

51. The next question to be determined is whether the Appellant is correct in submitting that the IRMS Rule and IRMS analysis can only be applied to confirm a positive finding under the T/E Rule, and do not constitute an independent basis for a finding of doping.
52. The Appellant argues that, in the absence of a valid positive finding under the T/E Rule, IRMS results cannot be relied upon and the entire doping control must be declared negative. The Appellant bases this argument on two alternative interpretations of the T/E Rule: (a) the T/E Rule creates an offence applicable to any case involving the prohibited substance testosterone; or (b) the T/E Rule creates a condition precedent to any finding of the prohibited substance testosterone.
53. The Panel acknowledges that, considered in isolation, the wording of the T/E Rule lends some credence to the contention that this provision creates an offence: “*The presence of a Testosterone (T) to Epitestosterone (E) ratio greater than six (6) to one (1) in the urine of a competitor constitutes an offence* [...]” [emphasis added]. However, the overall structure of the FINA Doping Control Rules and the FINA Doping Panel Decision clearly establish that the offence at issue is that set out in FINA Rule DC 2.1(a), as submitted by FINA.
54. FINA Rule DC 2.1 creates seven different doping offences including: “(a) *the finding of a prohibited substance (DC 3.1) within a competitor’s body tissue or fluids*”. FINA Rules DC 3.1 and DC 3.2, read together, provide that “*prohibited substances*” in competition are identified in Appendix A to the FINA Doping Control Rules.
55. Appendix A is entitled “*PROHIBITED SUBSTANCES – IN COMPETITION*”. It sets out a list of specific “*prohibited substances*” under various headings. For certain of these “*prohibited substances*”, there are footnotes that establish particular quantitative limits (e.g. caffeine, cathine, ephedrine, methylephedrine), or other factors to be taken into account (e.g. salbutamol, salmeterol and terbutaline are permitted by inhaler only for the treatment of asthma), for determining a positive finding of the substance.
56. Based upon this structure, it is evident that the sole purpose of Appendix A is to define the term “*prohibited substance*” for application in the offence created under FINA Rule 2.1(a). Considering the limited purpose of Appendix A, the T/E Rule must be interpreted as a means for determining a positive finding of testosterone rather than as an offence in and of itself.
57. Further support for this interpretation is found in the FINA Doping Panel Decision. The following statement is set out in the operative paragraphs of the Decision: “*The athlete is found to have committed a doping offence under FINA Rules DC 2.1(a) and DC 9.1.1*” (FINA Rule DC 9.1.1 relates to the issue of sanction). There is no mention whatsoever of an offence under the so-called T/E Rule. For this reason as well, the Panel is not persuaded that the T/E Rule creates a separate offence under the FINA Doping Control Rules.
58. Having determined that the relevant offence in this appeal is created by FINA Rule 2.1(a), the Panel must consider whether proof of a T/E ratio greater than six (6) to one (1) is nevertheless a condition precedent to a finding of the prohibited substance testosterone.

59. In the opinion of the Panel, there is no basis for this interpretation of the FINA Doping Control Rules. Testosterone is one of those prohibited substances that are produced naturally by the body. For obvious reasons, the prohibition against testosterone must therefore be interpreted as a prohibition against *exogenous* testosterone. Prior to the development of IRMS analysis, it was not, however, possible to differentiate between endogenous and exogenous testosterone.
60. Faced with this scientific limitation, FINA introduced the T/E Rule under which a T/E ratio greater than six (6) to one (1) constitutes presumptive evidence of an exogenous administration of testosterone. Under the express wording of the T/E Rule, this presumption may be rebutted with evidence that the elevated T/E ratio is “*due to a physiological or pathological condition*”.
61. Viewed within this historical and scientific context, it is clear that the T/E Rule is properly understood as an evidentiary rule which recognises a particular scientifically accepted procedure as a means of making a finding of doping, while at the same time acknowledging its limitations. The provision creates a rebuttable factual presumption; it is thus fundamentally evidentiary in nature.
62. The Panel also considers that the IRMS Rule is properly understood as an evidentiary rule, enacted in order to establish that IRMS analysis is scientifically recognised as a conclusive evidentiary method for proving doping. This is clear from the express wording of this provision:
“Evidence obtained from metabolic profiles or isotopic ratio measurements may be used to draw definitive conclusions regarding anabolic androgenic steroids” [emphasis added].
63. The Panel accepts FINA’s submission that the purpose of the T/E Rule and the IRMS Rule is to avoid the necessity of proving the scientific reliability of these evidentiary methods in every doping case involving testosterone. The T/E Rule and the IRMS Rule are, in essence, alternative and non-exclusive evidentiary rules. FINA is free to rely upon other scientific methods to prove a doping offence, subject to demonstrating a consensus in the international scientific community that such methods establish the presence of exogenous testosterone with a high degree of certainty.
64. Given the limited evidentiary purpose of the T/E Rule and the IRMS Rule, the Panel does not believe that there is any reason to conclude that a T/E ratio greater than six (6) to one (1) must be proven in every case in order to make a positive finding of doping. Rather, an elevated T/E ratio must be viewed as one of many potential evidentiary methods for proving an exogenous administration of testosterone.
65. Beyond a strict literal reading of the T/E Rule, the Appellant has offered little justification for giving precedence to one evidentiary method, the T/E ratio, over all other evidentiary methods that are proven to be scientifically reliable. In particular, the Panel finds that there is no good reason to give the T/E ratio precedence over IRMS analysis, a scientific method

which provides direct and conclusive evidence of an exogenous administration of testosterone.

66. Moreover, the Panel does not accept the Appellant's argument that the T/E Rule is rendered superfluous if it is interpreted as a purely evidentiary rule. Just as the existence of the T/E Rule in the FINA Doping Control Rules does not require that an elevated T/E ratio be proven in each case of alleged doping, the existence of the IRMS Rule does not necessitate direct evidence through IRMS analysis in every case. This is made clear by the use of permissive wording in relation to the IRMS Rule. IRMS analysis is but one possible evidentiary method for proving doping, and the IRMS Rule accordingly provides that this method "*may be used*" rather than "*shall be used*" to draw definitive conclusions of doping. Therefore, notwithstanding the introduction of the IRMS Rule, it is still possible to make a positive finding of doping solely in reliance upon the T/E Rule. Indeed, as the submissions of the parties in this case reveal, it is apparent that the T/E Rule will continue to be the primary evidentiary basis for finding the exogenous administration of testosterone until IRMS analysis becomes more widely available.
67. In light of these considerations, the Panel is of the opinion that the T/E Rule and the IRMS Rule are to be interpreted as alternative and non-exclusive evidentiary rules, both of which have full effect and are equally applicable to the present case.
68. The Panel does not believe that any weight should be placed on the fact that IRMS analysis is, in practice, used to confirm the finding of an elevated T/E ratio. Prof. de Ceaurriz testified that IRMS analysis is not systematically applied as part of the primary analysis of samples for purely administrative and financial reasons, rather than as a result of any controversy concerning its appropriateness or utility. The Panel is of the opinion that current practice sheds little if any helpful light on the proper interpretation of the T/E Rule or the IRMS Rule.
69. Finally, one very practical consideration weighs against the Appellant's interpretation of the T/E Rule and the IRMS Rule. If one were to accept the Appellant's submission, FINA would be required to prove doping through the indirect and rebuttable evidence of an elevated T/E ratio in every case, even though more sophisticated and conclusive scientific methods of proof have been developed. In effect, FINA would be precluded from relying upon the best scientific evidence of doping available at the time of the doping control procedure, at least until such evidence is formally recognised through an amendment to the FINA Doping Control Rules. Given the administrative complexities and undoubted delays associated with enacting formal amendments, and the pace at which science and technology evolve, it is clear that the Appellant's interpretation of the FINA Doping Control Rules would unduly hinder FINA's efforts to combat the problem of doping in sport.
70. For all of the above reasons, the Panel finds that it could rely upon the IRMS Rule and IRMS analysis in finding that the Appellant committed a doping offence, without concluding that the Appellant's T/E ratio was greater than six (6) to one (1).

71. The Panel must next consider whether it can apply the IRMS Rule given that it was not in force on 24 January 1999, the date of the doping control at issue in this case.
72. Under Swiss law, the prohibition against the retroactive application of law is well-established. In general, it is necessary to apply those laws, regulations or rules that were in force at the time that the facts at issue occurred (B. KNAPP, *Précis de droit administratif*, Basle 1991, p. 116; ATF 110 V 254; ATF 99 V 200).
73. This general principle is, however, subject to several exceptions, including an exception for laws or rules that are procedural in nature. In the absence of an express provision to the contrary, laws and rules relating to procedural matters apply immediately upon entering into force and regardless of when the facts at issue occurred (B. KNAPP, *Précis de droit administratif, supra*, pp. 117 and 123; ATF 110 V 330, 332).
74. It is common ground that the IRMS Rule came into force on 1 June 1999, some six months after the doping control at issue in this case. The only question to be determined is whether the IRMS Rule is properly characterised as a substantive provision or a procedural provision.
75. As discussed above, the Panel has concluded that the IRMS Rule is a purely evidentiary or procedural rule, enacted in order to establish that IRMS analysis is scientifically recognised as a conclusive evidentiary method for proving the exogenous administration of testosterone.
76. The fundamental evidentiary nature of the IRMS Rule is not altered by the fact that this provision precludes athletes from raising a defence based upon evidence of a physiological or pathological condition. The T/E Rule only permits such a defence because an elevated T/E ratio does not constitute direct and conclusive evidence of the exogenous administration of testosterone. There may be other physiological or pathological reasons for an elevated T/E ratio. By contrast, IRMS analysis provides direct evidence of the exogenous administration of testosterone and, accordingly, there is no place for such a defence under the IRMS Rule.
77. The IRMS Rule and the T/E Rule are alternative and non-exclusive evidentiary rules, as discussed above. The T/E Rule provides for a specific defence because of the scientific limitations of this evidentiary method. There is no reason to provide for this defence in the context of a different evidentiary method which is not subject to such limitations. In short words, the IRMS Rule cannot be said to deprive athletes of a defence because there is simply no scientifically valid defence to IRMS analysis.
78. The Panel is therefore satisfied that the IRMS Rule is an evidentiary or procedural rule and accordingly, it may be applied in this case notwithstanding the fact that the doping control at issue occurred before this provision came into force.
79. In any event, the Panel is entitled to consider FINA's enactment of the IRMS Rule as evidence of a consensus in the international scientific community regarding the reliability of IRMS analysis. This is strictly a question of considering the evidence on record; it does not

involve application of the IRMS Rule *per se*, as the Appellant was free to adduce expert evidence to demonstrate that there are doubts as to the scientific reliability of IRMS analysis.

80. Moreover, it should be emphasised that the Panel is entitled to rely on the IRMS analysis in this case without placing any weight whatsoever on the IRMS Rule. For the reasons set out above, the Panel considers that there is sufficient evidence on record, apart from the IRMS Rule, to establish that the IRMS analysis provides conclusive evidence of doping in this case.
81. Based upon Prof. de Ceaurriz's evidence that IRMS analysis is only carried out by seven or eight of the twenty-seven laboratories accredited by the IOC, the Appellant submits that any reliance on IRMS analysis would result in discrimination between athletes. The Appellant maintains that all athletes must be treated equally and that it is unfair that she be singled out for sanction in reliance on a method of analysis that is not universally applied.
82. The Panel has great difficulty accepting this submission. Prof. de Ceaurriz has testified that the equipment required for IRMS analysis is quite costly and, for this reason, only certain IOC-accredited laboratories are presently capable of performing this analysis. The decision as to whether or not an athlete will be subjected to IRMS analysis depends entirely upon the laboratory that is engaged to analyse the samples from a given competition. While it is true that the application of IRMS analysis is therefore quite random at the present time, this hardly constitutes discrimination. There is no question of singling out the Appellant as the specific identity of an athlete is not a factor in determining whether he or she will be subjected to IRMS analysis.
83. Moreover, the Panel does not consider it unfair that FINA has been able to provide conclusive evidence of doping against the Appellant while many other athletes who may have engaged in doping may have avoided detection. The question of whether or not other athletes have escaped sanction due to a lack of evidence is simply not relevant to the merits of this case.
84. Based upon the above analysis, the Panel has concluded that: (a) the IRMS analysis provides conclusive scientific evidence of an exogenous administration of testosterone and; (b) the Panel is entitled to rely upon the IRMS analysis as an independent and sufficient basis for finding that the Appellant committed a doping offence under FINA Rule DC 2.1(a).
85. In addition to the IRMS analysis, the Panel considers that both the Appellant's elevated T/E ratio and longitudinal study provide corroborative evidence of an exogenous administration of testosterone.
86. As discussed above, the Appellant has made a persuasive case that the "B" sample was affected by degradation and has thereby cast doubt on the reliability of the elevated T/E ratios found by the Laboratory.
87. Faced with this evidence, the Panel would be hesitant to find that the Appellant committed a doping offence exclusively in reliance on the T/E Rule. Nevertheless, the Panel considers that

the finding of a high testosterone level in both the “A” and “B” samples is entitled to some corroborative weight in support of the IRMS analysis.

88. In this regard, the Panel relies upon the following excerpt from Prof. de Ceaurriz’s written expert report dated 2 June 2000:

The abnormally elevated variability between the tests (sample A vs. sample B) of the testosterone and epitestosterone measures has little influence on the variability of the T/E support since this has always been found superior to 6 (T/E = 6.9 for sample A and 7.9 for sample B) [translated from French].

89. More importantly, it does not appear that the high level of testosterone found in the “A” and “B” samples can be explained by the Appellant’s physiological or pathological condition. While the Panel accepts that the Appellant suffers from PCO-Syndrome, Prof. Serio and Prof. de Ceaurriz both testified that it is very unlikely that this condition could account for the high level of testosterone detected by the Laboratory. The only other expert evidence on record regarding the effect of PCO-Syndrome on T/E ratios is that of Dr. Bonifazi and Prof. Gärtner. However, even accepting their evidence on the issue in its entirety, these experts merely take the position that PCO-Syndrome is a *possible* cause for the Appellant’s elevated level of testosterone.
90. In the opinion of the Panel, and with the greatest respect, the expert evidence of Prof. Serio and de Ceaurriz is more definitive and should for that reason be preferred to that Dr. Bonifazi and Prof. Gärtner. Such evidence essentially lays to rest one of the Appellant’s main arguments in this appeal and demonstrates that the elevated T/E ratios found by the Laboratory do, in fact, constitute reliable evidence of an exogenous administration of testosterone.
91. Finally, the Panel accepts FINA’s submission that the longitudinal hormonal study initiated by the Italian Swimming Federation provides further corroborative evidence of the IRMS analysis.
92. A longitudinal hormonal study involves the comparison of an athlete’s T/E ratio both before the finding of an elevated T/E ratio (to the extent that such data is available) and for a period of several months afterwards. The purpose of such a study is to determine whether an athlete’s elevated T/E ratio recurs over time, thus indicating that he or she has a naturally elevated T/E ratio due to some physiological or pathological condition.
93. In this case, it is common ground that the elevated T/E ratio detected on 24 January 1999 did not recur over the period of the Appellant’s longitudinal hormonal study. For the reasons set out above, the Panel does not accept the Appellant’s submission that the sole finding of an elevated T/E ratio on 24 January 1999 can be explained by her physical condition. Accordingly, the Panel finds that the longitudinal hormonal study constitutes additional evidence that the Appellant’s elevated T/E ratio was due to an exogenous administration of testosterone.

94. FINA Rule DC 9.1.1 establishes a two-part sanction for a first offence involving anabolic agents: a suspension of *at least* four years and a cancellation of the athlete's results for the previous six months.
95. Unfortunately, the Panel considers that it has little, if any, margin of discretion in determining the sanction to be applied in this case, for the following reasons.
96. A suspension of *more* than four years is clearly not called for and is explicitly rejected.
97. At the same time, the Panel does not consider that, in the present case, there exist grounds under FINA Rule DC 9.10 – which drastically limits the circumstances in which the minimum four-year suspension may be lessened, and imposes on the athlete a particularly heavy burden of proof – to shorten the minimum suspension period provided by Rule DC 9.1.1.
98. The Panel is aware that a four-year suspension is in effect equivalent to lifetime ban for the Appellant (which is the sanction established for a *second* offence), given her age and the unlikelihood of her competing again after such a long time. The Panel is concerned that, as a result, there is effectively no distinction between a first and second offence. Moreover, the Panel is both aware and concerned that the same offence is treated quite differently (often more leniently) in different sports, under the rules of various international federations.
99. The Panel having concluded that the Appellant has committed a doping offence under FINA Rule DC 2.1(a), however, the following sanction (identical to the sanction imposed by the FINA Doping Panel) is applicable under the FINA Rules and is for that reason hereby imposed:
 - (a) The Appellant shall be suspended for four (4) years commencing on 25 March 2000.
 - (b) All results achieved by the Appellant within a period of six (6) months before 24 January 2000 shall be cancelled.

The Court of Arbitration for Sport hereby rules:

1. The Appeal filed by S. on 4 May 2000 is dismissed.
 2. The decision issued by the FINA Doping Panel on 25 March 2000 is confirmed.
- (...)