

CAS 2017/A/5434 Olga Vilukhina v. International Olympic Committee (IOC)

ARBITRAL AWARD

delivered by the

COURT OF ARBITRATION FOR SPORT

sitting in the following composition:

President: Mr. Jacques Radoux, Legal Secretary at the European Court of Justice, Luxembourg

Arbitrators: Prof. Philippe Sands Q.C., Barrister and Professor of Law, London, United Kingdom

Prof. Petros C. Mavroidis, Professor of Law, Commugny, Switzerland

in the arbitration between

Ms. Olga Vilukhina, Russia

Represented by Mr. Yvan Henzer, Attorney-at-Law with Libra Law, Lausanne Switzerland, as well as by Mr. Alexei Panich and Ms. Polina Pdoplelova, Attorneys-at-Law with Herbert Smith Freehills CIS LLP, Moscow, Russia

Appellant

and

International Olympic Committee (IOC), Switzerland,

Represented by Mr. Jean-Pierre Morand and Mr. Nicolas Français, Attorneys-at-Law with Kellerhals Carrard, Lausanne, Switzerland, and Ms. Tamara Soupiron, Legal Counsel, International Olympic Committee

Respondent

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I. PARTIES

1. Ms. Olga Vilukhina (the “Athlete” or “Appellant”) is a retired Russian biathlete, who won three gold, two silver and two bronze medals at World Cups from 2011 to 2014. She also won the bronze medal in the 4x6 km relay at the European Championship 2010 in Otepää and the bronze medal in the 7.5 km sprint at the World Championship 2012 in Ufa. At the XXII Olympic Winter Games which took place in Sochi, Russia, in 2014 (the “Sochi Games”), the Athlete participated in five competitions and won a silver medal both in the Women’s 7,5 km Sprint on 9 February and in the Women’s 4x6 km relay on 21 February 2014.
2. The International Olympic Committee (the “IOC” or “Respondent”) is the world governing body of Olympic sport having its registered offices in Lausanne, Switzerland. The IOC is incorporated as an association pursuant to articles 60 et seq. of the Swiss Civil Code.

II. FACTUAL BACKGROUND AND PREVIOUS PROCEEDINGS

3. Below is a summary of the relevant facts and allegations based on the parties’ written and oral submissions, pleadings and evidence adduced. Additional facts and allegations found in the parties’ submissions, pleadings and evidence may be set out, where relevant, in connection with the legal discussion that follows. While the Panel has considered all the facts, allegations, legal arguments and evidence submitted by the parties in the present proceedings, it refers in its Award only to the submissions and evidence it considers necessary to explain its reasoning.

A. Background Facts

a. General facts

4. The Sochi Games took place between 7 and 23 February 2014. The Russian national team enjoyed significant success at the Sochi Games as Russian athletes ended up first in the overall medal table and won a total of 33 medals including 13 gold medals.
5. Following the television broadcast, on 3 December 2014, of a documentary concerning the alleged existence of an extensive secret, an state-sponsored doping programme within the All-Russia Athletics Federation (“ARAF”), the World Anti-Doping Agency (“WADA”) announced, on 16 December 2014, the appointment of an independent commission (the “Independent Commission”) to investigate the allegations as a matter of urgency. The Independent Commission, composed of Mr. Richard W. Pound QC, former President of WADA, Prof. Richard H. McLaren, CAS arbitrator and Professor of Law at Western University in Ontario, Canada, and Mr. Gunter Younger, Head of the Cybercrime Department at Bavarian Landeskriminalamt in Munich, Germany, was required to “*conduct an independent investigation into doping practices; corrupt practices around sample collection and results management; and, other ineffective administration of anti-doping processes that implicate Russia, the International Association of Athletics Federations [the ‘IAAF’], athletes, coaches, trainers, doctors and other members of athletes’ entourages; as well as, the accredited laboratory based in Moscow and the Russian Anti-Doping Agency [the ‘RUSADA’]*”.

6. On 9 November 2015, the Independent Commission delivered its final report (the “IC Report”) which contained a detailed account of the Independent Commission’s findings concerning “*systemic failures within the IAAF and Russia that prevent or diminish the possibility of an effective anti-doping program, to the extent that neither ARAF, RUSADA, nor the Russian Federation can be considered Code-compliant*”.
7. On 19 May 2016, WADA announced that it had appointed Prof. Richard McLaren to conduct an independent investigation into the allegations made by Dr. Grigory Rodchenkov. Dr. Rodchenkov was the former director of the formerly WADA-accredited laboratory in Moscow (the “Moscow Laboratory”) and the official on-site anti-doping laboratory in Sochi (the “Sochi Laboratory”). After leaving Russia in 2015, Dr. Rodchenkov made a series of widely publicised allegations concerning the existence of a sophisticated doping scheme before, during, and after the Sochi Games. Prof. McLaren was directed: (i) to establish whether there had been manipulation of the doping control process during the Sochi Games, including but not limited to, acts of tampering with the samples within the Sochi Laboratory; (ii) to identify the modus operandi and those involved in such manipulation; (iii) to identify any athlete that might have benefited from those alleged manipulations to conceal positive doping test[s]; (iv) to identify if this modus operandi was also happening within the Moscow Laboratory outside the period of the Sochi Games; and (v) to establish whether there was any other evidence or information held by Grigory Rodchenkov.
8. On 16 July 2016, Prof. McLaren submitted his first report (the “First McLaren Report”) to WADA in which he provided the following summary of his “Key Findings”:
 1. The Moscow Laboratory operated, for the protection of doped Russian athletes, within a State-dictated failsafe system, described in the report as the Disappearing Positives Methodology (the “DPM”).
 2. The Sochi Laboratory operated a unique sample swapping methodology to enable doped Russian athletes to compete at the Sochi Games.
 3. The Ministry of Sport directed, controlled and oversaw the manipulation of athletes’ analytical results or sample swapping, with the active participation and assistance of the Russian Federal Security Service, the Centre of Sports Preparation of National Teams of Russia and both Moscow and Sochi Laboratories.
9. On 9 December 2016, Prof. McLaren delivered his second report (the “Second McLaren Report”), chapter 6 of which contained detailed findings concerning the existence of a far-reaching doping program at the Sochi Games. Prof. McLaren concluded that there had been “*a carefully orchestrated conspiracy, which included the complicity of Russian sports officials within the [Russian Ministry of Sport], [Center of Sports Preparation of National Teams of Russia], Moscow based Sochi Laboratory personnel, RUSADA, the Russian Olympic Organising Committee, athletes, and the [Federal Security Services]*”. He explained that the overall effect of the programme deprived other competitors of a level playing field at the Sochi Games. He further explained that the Russian Ministry of Sport had developed a list of favored athletes who would be provided with a “cocktail” of performance-enhancing drugs, namely oxandrolone, methenolone and trenbolone, to aid their performance at the Sochi Games. According to Prof. McLaren, the 37 athletes on that list, the so called “*Duchess List*”, “*were considered protected and their samples would be*

automatically swapped during the games” pursuant to the scheme. He therefore referred to those athletes as *“protected athletes”*.

10. Prof. McLaren went on to explain that a key aspect of the programme to facilitate and conceal this doping was the creation of *“a catalogued bank of clean urine from the protected athletes”* allowing the swapping of *“dirty samples”* for clean, i.e. drug-free, samples. In summary, according to Prof. McLaren: (i) prior to the Sochi Games, protected athletes provided clean samples of their own urine in plastic beverage bottles; (ii) those samples were delivered to the Moscow Laboratory where they were tested to ensure that they were, in fact, clean; (iii) they were then provided to the Centre of Sports Preparation of National Teams of Russia (the *“CSP”*) and catalogued under each athlete’s name in preparation for future delivery to the Federal Security Services (the *“FSB”*); (iv) in the period before the Sochi Games, a *“clean urine bank”* was established at the FSB Command Centre, which was situated immediately adjacent to the Sochi Laboratory. Inside that building a dedicated room containing several large freezers was set up for the purpose of storing the clean urine samples.
11. The Second McLaren Report went on to describe the sophisticated arrangements that were implemented to facilitate the covert swapping of urine samples provided by protected athletes at doping control tests during the Sochi Games. These arrangements involved the surreptitious removal of the athletes' B sample bottles, which were provided to an FSB officer who had devised a technique for removing and replacing the plastic caps on the bottles without detection. Prof. McLaren explained that, in order to facilitate this process, athletes who underwent doping control tests would secretly send images of their doping control forms (the *“DCFs”*) to particular persons who would then transmit this information to the Sochi Laboratory, thereby enabling the laboratory to identify which of the anonymised sample bottles needed to have their contents substituted with clean urine belonging to the relevant athletes.
12. On 19 July 2016, a Disciplinary Commission chaired by Mr. Samuel Schmidt (the *“Schmidt Commission”*) was appointed by the IOC Executive Board (the *“IOC EB”*). On 2 December 2017, the Schmid Commission delivered its report (the *“Schmidt Report”*) concerning facts in support of the disciplinary procedure that the IOC had commenced under Rule 59 of the Olympic Charter. The Schmid Commission concluded that the analysis of the documented, independent and impartial elements, including those confidentially transmitted to said commission was corroborated by forensic analysis as well as biological analysis, and confirmed of the existence of the DPM and the tampering methodology, in particular during the Olympic Winter Games Sochi 2014, as described in the Second McLaren Report. It confirmed the seriousness of the facts, the unprecedented nature of the cheating scheme and, as a consequence, the exceptional damage to the integrity of the IOC, the Olympic Games and the entire Olympic Movement. According to the Schmid Commission, Dr. Rodchenkov played a key role in the development of the specific system to be operational during the Olympic Winter Games in Sochi 2014. The Schmid Commission recommended the IOC EB: (i) to take the appropriate measures that should be strong enough to effectively sanction the existence of a systemic manipulation of the anti-doping rules and system in Russia, as well as the legal responsibility of the various entities involved (i.e. including uniform, flag and anthem); (ii) while protecting the rights of the individual Russian clean athletes; and (iii) to take into consideration the multiple costs incurred by the two IOC

Disciplinary Commissions, in particular those linked to the investigations, the various expertise and the re-analysis of the samples of the Olympic Games.

13. On 19 July 2016, the IOC EB had appointed another Disciplinary Commission (the “IOC DC”), chaired by Prof. Denis Oswald, responsible for investigating potential Anti-Doping Rule Violations (“ADRVs”) committed by individual Russian athletes at the Sochi Games. In late 2016 and in 2017, the IOC initiated formal disciplinary proceedings against a number of Russian athletes, alleging that those athletes knowingly and actively engaged in an elaborate State-orchestrated doping and cover-up scheme at the Sochi Games. The Athlete was one among these Russian athletes.

b. Specific facts related to the Athlete

14. At the Sochi Games, the Athlete took part in five biathlon competitions, namely (i) the Women’s 7.5 km Sprint on 9 February 2014, in which she ranked 2nd; (ii) the Women’s 10 km Pursuit on 11 February 2014, in which she ranked 7th; (iii) the Women’s 12,5 km Mass Start on 17 February 2014, in which she ranked 21st; (iv) the 2x6 km Women + 2x7.5 km Men Mixed Relay on 19 February 2014, in which the Russian team ranked 4th, and (v) the Women’s 4x6 km Relay on 21 February 2014, in which the Russian team ranked 2nd.
15. Before and during the Sochi Games, urine samples were collected and analyzed by the WADA accredited laboratory in Sochi. The Athlete provided the following three urine samples: (i) 2889607, sealed on 31 January 2014, (ii) 2890580, sealed on 9 February 2014 and (iii) 2891822, sealed on 16 February 2014. Furthermore, the Athlete provided two blood samples: (i) 857619, on 31 January 2014, and (ii) 857190 on 9 February 2014.
16. None of these urine and blood samples tested positive for any prohibited substance.

B. Proceedings before the IOC Disciplinary Commission

17. On 22 December 2016, the IOC DC opened a formal investigation against a number of Russian athletes identified by their respective International Federations as being potentially implicated in the doping scheme, and which were to be conducted by the IOC DC.
18. On 19 October 2017, the IOC informed the Athlete that the investigation against her had been completed. By the same correspondence, the IOC provided the Athlete, through her NOC, with a set of evidence specific to her case, on the basis of which the investigation was commenced. This set consisted of several hundred pages, including forensic expert reports on marks and scratches allegedly found on the Athlete’s sample bottles, i.e. the Report of the Methodology Developed for the Forensic Examination of Marks Visible on the Inside of the Plastic Caps of BEREG-KIT Bottles and their Potential Association with Tampering Activity Using Tools dated 27 July 2017 and issued by Prof. Champod (the “First Champod Report”); scientific analyses of the Athlete’s urine, i.e. the Expert Medical Report prepared by Prof Michel Burnier regarding his study of the salt content, as well as DNA analyses. The Athlete was invited to file her written comments to the IOC’s communication by 6 November 2017. A hearing date was set for 13 November 2017.
19. On 9 November 2017, the IOC provided the Athlete and the DC with an affidavit from Prof. McLaren and an affidavit from Dr. Rodchenkov.

20. On 10 November 2017, the Athlete filed her written submissions to the IOC DC.
21. On 13 November 2017, the hearing took place before the IOC DC at the IOC Headquarters in Lausanne, Switzerland. The Athlete attended the hearing via videoconference and was represented by legal counsel and assisted by an interpreter.
22. On 27 November 2017, the IOC DC issued its decision against the Athlete and notified the operative part of that decision (the “Appealed Decision”). On 22 December 2017, the IOC DC provided the reasons for its decision in the form of a statement setting out the principles applied in its decisions. As it concerns the Athlete, the IOC DC’s statement and the application of the principles set forth therein form the basis of her appeal to the CAS (the IOC DC’s decision dated 27 November 2017, as well as the statement that followed on 22 December 2017, are referred to as the “Appealed Decision”).
23. In the Appealed Decision, the IOC DC noted that it would not apply collective sanctions against the Russian athletes as was done by other sporting organisations, but would examine each case individually and only sanction athletes in respect to whom it finds that there is enough evidence of their personal implication in violations of the anti-doping rules. It highlighted however that, in all cases, even the Athlete’s case, once the existence of a general scheme aimed at cheating is established, this scheme would be taken into consideration in assessing the evidence before it concerning each individual athlete.
24. Concerning the assessment of the evidence of a cover-up, the IOC DC held that this is typically either witness evidence or circumstantial evidence from which the application of the process can be inferred. The assessment of evidence of this type requires the decision making-body to make a global evaluation of all the elements at its disposal, to weigh their significance and to determine whether and how each element fits with, and corroborates, the other elements, as in a puzzle. At the end of the process, the decision making-body must be “comfortably satisfied” that the global picture presented by the available evidence corresponds to reality.
25. On the basis of the assessment of the evidence at its disposition, the IOC DC set out the conclusions that such assessment allows for the existence of a cover-up scheme and the implication of the athletes, in general. On these two aspects, the IOC DC confirmed that it found as established beyond any doubt, which also means to its comfortable satisfaction, that the cover-up scheme, which has been described in the McLaren Report based on the explanations of Dr. Rodchenkov, was indeed implemented in Sochi. Regarding the implication of the athletes, and without reference to the Athlete in particular, the IOC DC considered that it was comfortably satisfied it was more probable that the “*athletes were implicated in the above scheme, either from the start or ad hoc, and they were aware thereof and participated therein*” rather than the “*scheme has been implemented, without the athletes knowing, nor participating*”.
26. The IOC DC then addressed the circumstances specific to the Athlete in light of these first findings and found that the participation of the Athlete in the doping scheme was established to its comfortable satisfaction for the same reasons that led to the conclusion of the existence of the scheme and the implications of the athletes in said scheme, and, more specifically, for the following reasons :

- (i) the Athlete was one of the athletes listed on the Duchess List. The IOC DC already drew a decisive inference from this element alone;
 - (ii) one sample bottle of the Athlete featured conclusive multiple T-marks;
 - (iii) The Athlete would have provided clean urine for the purpose of sample swapping since she appears on a list reflecting a clean urine bank; and
 - (iv) Dr. Rodchenkov further provided additional specific elements concerning the implication of the Athlete.
27. Based on all the above elements, the IOC DC concluded that it was more than comfortably satisfied that the Athlete was a participant in, and a beneficiary of, the cover-up scheme implemented on the occasion of the Sochi Games and that the arguments raised by the Athlete did not put its assessments with regard to the Athlete's participation in the scheme into question.
28. In view of the above considerations, the IOC DC found that the Athlete committed a violation, first, of article 2.2 of the 2009 World Anti-Doping Code (the "2009 WADC") (use of a Prohibited Method - (M2) Tampering and that, subsidiarily, the same circumstances shall in any event be deemed as constitutive of a violation of article 2.5 of the 2009 WADC; second, of article 2.2 of the 2009 WADC (use of a Prohibited Substance); and third, of article 2.8. of the 2009 WADC (cover-up/complicity).
29. As a consequence of these violations, and in application of articles 7.1 and 8.1 of the IOC Anti-Doping Rules (the "IOC ADR"), the IOC DC annulled the results achieved by the Athlete during the Sochi Games with all resulting consequences (notably withdrawal of medals, diplomas, pins etc.) and disqualified all results of the Athlete. In addition, and as a consequence of this disqualification from the event, the IOC DC, in application of article 9.1 para. 2 of the IOC ADR in connection with article 11 of the 2012 IBU Anti-Doping Rules (the "IBU ADR"), annulled the results of the teams in which the Athlete participated.
30. The operative part of the Appealed Decision reads as follows:
- "I. The Athlete, Olga VILUKHINA:*
- a) is found to have committed anti-doping rule violations pursuant to Article 2 of The International Olympic Committee Anti-Doping Rules applicable to the XXII Olympic Winter Games in Sochi, in 2014;*
 - b) is disqualified from the events in which she participated upon the occasion of the XXII Olympic Winter Games in Sochi, in 2014, namely:*
 - (i) the Women's 7.5km Biathlon Event, in which she ranked 2nd and for which she was awarded a silver medal, a medallist pin and a diploma;*
 - (ii) the Women's 10km Pursuit Biathlon Event, in which she ranked 7th and for which she was awarded a diploma;*

- (iii) *the Women's 12,5km mass start Biathlon Event, in which she ranked 21th;*
 - (iv) *the Women's 4x6km Biathlon Relay Event, in which she ranked 2nd and for which she was awarded a silver medal, a medallist pin and a diploma;*
 - (v) *The Relay Mix Biathlon Event, in which she ranked 4th and for which she was awarded a diploma;*
- c) *has the medals, the medallist pins and the diplomas obtained in the above-mentioned Events withdrawn and is ordered to return the same to the International Olympic Committee.*
- II. *The Russian Team is disqualified from Women's 4x6km Relay Biathlon Event. The corresponding medals, medallist pins and diplomas are withdrawn and shall be returned to the International Olympic Committee.*
- III. *The Russian Team is disqualified from the Relay Mix Biathlon Event. The corresponding diplomas are withdrawn and shall be returned to the International Olympic Committee.*
- IV. *The International Biathlon Union is requested to modify the results of the abovementioned events accordingly and to consider any further action within its own competence.*
- V. *Olga VILUKHINA is declared ineligible to be accredited in any capacity for all editions of the Games of the Olympiad and the Olympic Winter Games subsequent to the Sochi Olympic Winter Games.*
- VI. *The Russian Olympic Committee shall ensure full implementation of this decision.*
- VII. *Russian Olympic Committee shall notably secure the return to the International Olympic Committee, as soon as possible, of the medals, the medallist pins and the diplomas awarded in connection with the Women's 7.5km Biathlon Event and the Women's 10km Pursuit Biathlon Event to the Athlete.*
- VIII. *The Russian Olympic Committee shall also secure the return to the International Olympic Committee, as soon as possible, of the medals, the medallist pins and the diplomas awarded in connection with the Women's 4x6km Relay Biathlon and Relay Mix Biathlon Events to the members of the Russian Team.*
- IX. *This decision enters into force immediately."*

III. PROCEEDINGS BEFORE THE COURT OF ARBITRATION FOR SPORT

31. On 1 December 2017, the Athlete filed her statement of appeal against the IOC with respect to the Appealed Decision in accordance with Article R47 of the Code of Sports-related Arbitration (the "Code"), Article 13 of the 2009 WADA Code and Article 11 of the IOC

ADR applicable to the Sochi Games. In her Statement of Appeal, the Athlete requested that this procedure be expedited in accordance with article R52 of the Code.

32. On 4 January 2018, the Athlete informed the CAS Court Office that the Parties had found a procedural agreement according to which the present proceeding as well as those in cases CAS 2017/A/5435, Yana Romanova v. IOC, and CAS 2017/A/5444, Olga Zaytseva v. IOC, were stayed until reasoned awards were issued by the CAS in the cases CAS 2017/A/5379-5380; 5422-5433; 5436-5441 and 5445-5446 (the “Other Proceedings”), at least of reasoned awards issued in comparable cases out of the mentioned cases, or until both parties jointly request the resuming of the proceedings. The procedural agreement further provided, inter alia: (i) that depending on the outcome of the Other Proceedings, the Parties will decide whether it is worth to resume and continue the present proceedings; (ii) that the reasoned decision for the Ms Zaytseva was issued on 22 December 2017 and that IOC had further issued a statement setting out the principles applied in its decisions. For the Athlete and Ms. Romanova, this statement and the application of the principles set forth therein in the Appealed Decision form the basis for the appeal; (iii) that if the proceedings are resumed, the parties will nominate the same arbitrators for all three proceedings and that the CAS shall appoint the same president for all three proceedings in order for these to be conducted jointly and with a common hearing, but with three different and separate awards; (iv) that to the extent applicable and in order to avoid unnecessarily duplication of the evidentiary process, the parties shall be authorised to rely on the evidence submitted in the Other Proceedings insofar as relates to issues common to all cases, including the transcripts of examination of experts and witnesses, excluding however any elements specifically relevant to other individual athletes involved in the Other Proceedings (the anonymity which shall be protected in any event). If the IOC chooses to rely on evidence from the Other Proceedings, the corresponding evidence file shall be provided to the Appellant and her appeal brief deadline shall start to run upon receipt of such evidence file; (v) that the Parties have the right to adduce additional evidence, notably and without limitation evidence specific to the Appellant and/or to review the evidence thus provided (including re-examination of experts and witnesses to the extent reasonably needed in view of the above-mentioned objective not to unnecessarily repeat the evidentiary process.
33. On 5 December 2018, the CAS Court Office informed the Parties that the reasoned decisions in the Other Proceedings had been issued and asked the Appellant to state whether she wished to resume the proceedings.
34. On 10 December 2018, the Appellant answered that the Parties had, in all three joined proceedings, agreed on the following principles:
- “1) The IOC requests that additional analyses be conducted on the samples of the Appellants (B-sample analysis and DNA analysis) before these arbitration procedures are resumed.*
- 2) The Appellants are ready to collaborate as they do believe that these analyses may constitute evidence that will confirm that they did not violate any anti-doping rule.*
- 3) Once the results of these analyses are disclosed to the Parties, they will ask for these proceedings to be resumed.”*

35. On 31 May 2019, the Appellant informed the CAS Court Office that the Parties intended to resume the proceedings but had to proceed to the nominations of the arbitrators.
36. On 24 June 2019, the IOC nominated Prof. Petros C. Mavroidis, Professor of Law, as arbitrator in the present proceedings.
37. On 5 July 2019, the Appellant nominated Prof. Philippe Sands Q.C., Professor of Law and Barrister, as arbitrator.
38. On 12 July 2019, the CAS Court Office, on behalf of the President of the CAS Appeals Arbitration Division, informed the Parties that the Panel appointed to decide this appeal was constituted as follows:
 - President: Mr. Jacques Radoux, Référendaire, European Court of Justice, Luxembourg
 - Arbitrators: Prof. Philippe Sands Q.C., Professor of Law and Barrister in London, United Kingdom
Prof. Petros C. Mavroidis, Professor of Law, Commugny, Switzerland
39. On 4 September 2019, the Appellant filed her Appeal brief.
40. On 19 November 2019, the Respondent filed its Answer.
41. On 29 November 2019, the Appellant informed the CAS Court Office that, in the light of the new evidence filed by the IOC with its Answer, the Parties had agreed to file a second round of written submissions.
42. On 27 January 2020, the Appellant filed her rejoinder and some supplementary exhibits.
43. On 21 February 2020, the Parties signed and returned the order of procedure, denoting reservations as needed.
44. On 24 February 2020, the Respondent filed its reply and submitted some new evidence.
45. On 2 and 3 March 2020, a public hearing took place at the CAS Court Office. The Panel was assisted by Mr. Brent J. Nowicki, Managing Counsel, and joined by the following participants:

For the Appellant:

Ms. Olga Vilukhina, in person;
Me Yvan Henzer (Libra Law SA), main-counsel, in person;
Mr. Alexei Panich (Herbert Smith Freehills CIS LLP), co-counsel, in person;
Ms. Polina Podoplelova (Herbert Smith Freehills CIS LLP), co-counsel, in person;
Mr. Geoffrey Arnold, forensic expert, in person;
Dr. David Charytan, expert, in person;
Prof. Irina Bobkova, expert, in person;
Mr. Alexander Shishkin, interpreter, in person.

For the Respondent:

Me Jean-Pierre Morand (Kellerhals Carrard), lead-counsel, in person;
 Me Nicolas Français (Kellerhals Carrard), co-counsel, in person;
 Ms. Tamara Soupiron, IOC legal counsel, in person;
 Prof. Christophe Champod, forensic expert, in person;
 Dr. Michel Burnier, expert, in person.

46. The Parties had agreed to a common hearing for the proceedings in the cases CAS 2017/A/5434, 5435 and 5444, and had established a detailed timetable for said hearing allowing for each of the three athletes to have the specific aspects of their case be attributed sufficient time.
47. Although the hearing was considered public, the Parties had, under consideration of the outbreak of the COVID-19 pandemic in some parts of Europe and the imminent outbreak in Switzerland, agreed to limit the access to the hearing room to a restricted number of previously identified persons.
48. At the outset of the hearing, the Athlete, first, reiterated her objections to the composition of the Panel as already set out in her petition for challenge of Mr. Radoux. The Respondent confirmed that it had no objection to the constitution of the Panel. After the pleadings of the parties, Ms. Vilukhina was given the opportunity to address the Panel. At the conclusion of the hearing, the Appellant, while reconfirming and without prejudice to her objections with respect to the appointment of Mr. Radoux, joined the Respondent in confirming that their right to be heard had been fully respected, and that they had no objections as to the manner in which the proceedings had been conducted.
49. The Athlete, second, argued that the affidavits produced by the IOC did not contain Dr. Rodchenkov's original signature and were, thus, forged. According the Appellant, several experts had confirmed the Appellant's initial suspicion that, inter alia, the signatures were mechanically inserted into the affidavits. In the present case, exceptional circumstances in the sense of Article R56 of the Code could be invoked, as this information was only received shortly before the hearing.
50. In this respect, the Panel noted that the Respondent had provided the Panel with an official certified original affidavit of Dr. Rodchenkov from which it follows that none of the signatures on the affidavits submitted in the present proceeding were forged. Thus, the Panel expressly finds that the allegations raised by the Appellant are wholly unfounded.

IV. SUBMISSIONS OF THE PARTIES**A. The Athlete's submissions**

51. In her Appeal brief, the Athlete requests the following relief:
 - i. *The Decision of the IOC Disciplinary Commission in the matter of Olga Vilukhina (SML-0[2]4) dated 27 November 2017 is annulled;*
 - ii. *the IOC is ordered to pay the costs of the arbitration and the Appellants legal fees and expenses.*

52. In her written submissions, the Athlete, as a preliminary point, notes that it is for the IOC to prove to the “comfortable satisfaction” of the Panel that she is guilty of an ADRV. In the present matter, where the allegations made against the Athlete are of utmost seriousness, the standard of proof should be set almost as high as the “beyond reasonable doubt” standard. In the absence of any Adverse Analytical Finding (“AAF”), the Panel can only decide to sanction the Athlete inasmuch it is convinced - by strong evidence - that she is guilty of an ADRV. Should the CAS panel have a reasonable doubt as to the guilt of the Athlete, the charges brought against her by the IOC shall be dismissed.
53. In support of her Appeal, the Athlete submits that the IOC did not only not provide any credible evidence on her supposed involvement in the so-called organised doping scheme or of her being aware of any doping scheme supposedly tailored to protect her, but did not even establish that she ever used a prohibited substance. The IOC merely relies on a speculation which is not admissible when the issues at stake are so serious and carry severe consequences for the Athlete.
54. Regarding the more specific elements on which the IOC DC relied in the Appealed Decision, the Athlete’s submissions, in essence, may be summarized as follows:
 - a. *The so-called organised doping scheme*
55. The Appellant argues that it is irrelevant to attempt to demonstrate in an individual case whether or not Russia implemented a doping scheme in order to protect certain athletes. The IOC must adduce compelling evidence that the Appellant did effectively use a prohibited substance or a prohibited method, or that she was personally and deliberately involved in a doping scheme.
56. However, according to the Appellant, the IOC DC’s findings based on the McLaren Reports are irrelevant as: (i) the McLaren Reports represent the views and conclusions of one person based on a compilation and reproduction of unverified witness testimonies, documents and forensic analyses; (ii) the McLaren Reports, as explicitly stated in the Second McLaren Report (page 35), were never intended as an investigation into potential ADRV’s by individual athletes; (iii) Prof. McLaren has repeatedly distanced himself from his report being misused as “evidence” against individual athletes, for example during the hearing in the Other Proceedings; (iv) Prof. McLaren decided to make of Dr. Rodchenkov’s oral statements the central focus of the entirety of both of his reports. However, Dr. Rodchenkov is not a reliable witness; (v) the CAS Panels appointed in the Other Proceedings found that “*it is insufficient for the IOC merely to establish the existence of an overarching doping scheme to the comfortable satisfaction of the Panel. Instead, the IOC must go further and establish, in each individual case, that the individual athlete knowingly engaged in particular conduct that involved the commission of a specific and identifiable ADRV*”.
57. The Appellant further observes that it follows from the awards in the Other Proceedings that even if an organised doping scheme existed, this would not be sufficient to establish an ADRV in an individual case. Thus, the IOC DC could not merely draw the inference that the scheme could not work without the personal implication of the athletes.
58. Finally, the Appellant notes that, according to the awards in the Other Proceedings, “*it is incumbent on the IOC to adduce particularly cogent evidence of the Athlete’s deliberate personal involvement in that wrongdoing*”. As a consequence, the IOC was requested to

establish that the Athlete personally committed the specific acts or omissions necessary to constitute an ADRV under each of the separate provisions of the WADC referred to in the operative part of the Appealed Decision. However, in the case at hand, there would be no persuasive evidence that the Appellant used a prohibited substance and no element that could render her guilty of having been part of an organised doping scheme.

b. Absence of any AAF

59. The Appellant recalls that, although having been tested numerous times in her career, her samples having been analysed by the best laboratories in the world and her having been subject to target testing before the Sochi Games, she has never tested positive for any prohibited substance. This would be the best evidence that she has never been implicated in any doping offense. In addition, all three samples she provided before and during the Sochi Games have been tested and retested and did not show any AAFs. Moreover, the blood parameters of the Appellant, recorded by the IBU when the Appellant was randomly selected to provide blood samples before certain competitions, show that her level of haemoglobin was absolutely normal, which is a strong evidence that she was not doping. This is confirmed by Prof. Pascal Kintz, whose expert report contradicts the wrong accusations of Dr. Rodchenkov who claims that the whole biathlon team had extremely high levels of haemoglobin – a key indicator of EPO abuse according to him – during a training camp in April 2013.

c. The so-called “Duchess List”

60. As regards to the IOC DC’s finding that the fact that the Appellant’s name appears on the Duchess List constitutes a “decisive inference” that she was “both effectively and knowingly implicated in the scheme”, the Appellant points out, first, that there is absolutely no evidence that she effectively took the Duchess Cocktail.
61. Second, no one has ever seen the Appellant taking the Duchess Cocktail. Dr. Rodchenkov having acknowledged that he never personally administered the cocktail to the athletes, nor personally witnessed any athletes taking the cocktail, his testimony constitutes mere hearsay and should, thus, be disregarded in this respect.
62. In any event, as it was found in the Other Proceedings, the mere fact of the Athlete’s presence on the Duchess List was not sufficient for other panels to be comfortably satisfied that an athlete used a prohibited substance during the Sochi Games (CAS 2017/A/5379, Alexander Legkov v. IOC).
63. Third, the witness statement of Ms. Rodionova strongly contradicts all of Dr. Rodchenkov’s allegations according to which Ms. Rodionova has been involved in the selection of the athletes to be protected, has aggregated the so-called “Duchess List”, was responsible to distribute the Duchess Cocktail to the coaches and athletes, was in charge to collect the clean urine and to store it in view of the Sochi Games and was the link between the athletes and the laboratory with respect to the identification of the samples provided by Russian athletes during the Sochi Games.
64. In view of the above, the mere fact that the Appellant’s name appears on the Duchess List would be all but conclusive evidence that she ever used the said cocktail. In any event, there could be no evidence against her as she never committed any ADRV.

d. The marks found on the sample bottles

65. The Appellant observes that the necessary condition for the alleged doping scheme to work during the Sochi Games is not only the existence of clean urine stored in a so-called urine bank, but that the sealed Berlinger bottles containing the urine could be opened for the purpose of swapping.
66. However, after all the experimenting done by Prof. Champod, appointed by the IOC in order to find out the methodology used to open the sealed bottles, the evidence provided by the latter's reports, i.e. 27 July 2017, 30 November 2017, and 16 July 2018 (general level) and concerning in particular the individual case of the Appellant (bottles of samples B2889607, B2890580 and B2891822), would not provide conclusive evidence that the Appellant's sample bottles were tampered with.
67. According to the Appellant, from a general standpoint, it follows from the report(s) established by Mr. Geoffrey Arnold, that the forensic analysis carried out by Prof. Champod and his team has a serious number of flaws, inter alia, in regard of: (i) the threefold classification of the marks that fails to take into account the uncertainty in the origin of many marks; (ii) the too limited empirical data on which he relied; (iii) his failure to test alternative hypothesis for the origin of the marks; (iv) the fact that he did not change the initial hypothesis or consider an alternative hypothesis after that hypothesis failed; (v) the fact that he has never had any contact with Dr. Rodchenkov and was thus not in a position to tell whether the tool he used in his experiment is similar to the one that was allegedly used in the doping scheme; (vi) the conditions in which the experiments were carried out by the Lausanne Laboratory as they were not comparable to those existing during the Sochi Games when the tampering allegedly took place; (vii) the fact that he carried out the examinations of the scratch marks on the caps by using imaging techniques that can be deployed through the bottle cap instead of examining the directly the inside of the cap.
68. The Appellant notes that the panel in the Other Proceedings has also held that Prof. Champod's findings were not conclusive evidence.
69. From a more specific standpoint and with respect to her individual case, the Appellant observes that Prof. Champod and his team found no T-marks on two of her samples (samples B2889607 and B2890580) and concluded that it is more than ten times more probable that the sample bottles had not been tampered with. Given that it was admitted that Prof. Champod's team had never managed to open a bottle without leaving any T-marks, the absence thereof on these samples B2889607 and B2890580 would show that, contrary to the IOC's proposition, they have not been manipulated, which would, in turn, be evidence that the Appellant was not involved in a doping scheme. Regarding the other sample provided by the Appellant (sample B2891822), Prof. Champod's team found multiple T-marks while acknowledging that the scope of their investigation was too limited to allow drawing any adverse inferences with respect to an alleged manipulation of the Appellant's sample bottles. In particular, the Lausanne Laboratory expressly pointed out that these marks may be the result of a normal use of the bottles.
70. At the same time, the Appellant testifies that she always used to close the Berlinger bottles to the fullest extent which means that the tampering of the samples she provided would leave marks much more visible than the ones found by Prof. Champod on the sample bottles she provided.

71. The Appellant further considers that it is established that T-marks are not caused by the use of a specific tool designed to unseal the bottles secretly and can be explained by another cause than tampering. The scenario described by Dr. Rodchenkov, according to which the swapping of the urine would always take place at night, would be contradicted by the fact that some samples provided by Russian athletes were immediately analysed after their delivery to the laboratory. This has, for example, been the case for the sample 2889698, provided by Ms. Romanova, and the sample 2891822 provided by herself, both of which have, pursuant to the chain of custody, been analysed within such a short time frame leaving no time for any tampering. However, both samples bearing multiple T-marks, it has to be concluded that T-marks can be explained by another cause than tampering such as normal use.
72. In view of the above, and the fact that (i) two out of the three bottles have no marks, which establishes that there was no manipulation; (ii) Prof. Champod accepts that T-marks may be compatible with a normal use of the bottle; (iii) T-marks can effectively result from a normal use of the bottle as illustrated; (iv) the T-marks observed on one Berlinger bottle containing the Appellant's urine are not compatible with marks that would have been left by a tool if the bottle was fully closed, like the bottles provided by the Appellant, the Appellant concludes that there is no conclusive evidence that her sample bottles were tampered with. Moreover, there would certainly be no evidence whatsoever that she herself ever tampered with any sample or had knowledge of such alleged tampering.

e. The alleged clean urine bank

73. The Appellant maintains that absolutely no evidentiary weight can be given to the scenario of a clean urine bank constituted for the purpose of sample swapping. All information provided by Dr. Rodchenkov in this respect would be categorically false and untrue. Not only was he never present when athletes allegedly provided clean urine, but the scenario he pictured is contradicted by (i) the statement of the Appellant, who categorically denies having provided clean urine for the purpose of sample swapping; (ii) the witness statement of Ms. Rodionova in which she clearly and unequivocally specifies that the allegations of Dr. Rodchenkov are false and untrue. Her statement being corroborated by the CSP's evidence that confirms that no refrigerators or refrigerator units have been purchased for storage of the athletes' biomaterials; (iii) the fact that, in the context of the clean urine bank, a CAS Panel already concluded that only "limited weight can be attached to this aspect of Dr. Rodchenkov's testimony" (CAS 2017/A/5379, Alexander Legkov v. IOC); and (iv) the inventory of the alleged clean urine bank is not reliable as some data cannot be true. In this respect, the urine provided by the Appellant on 24 October 2012, was provided in the course of the yearly medical check-up of all Russian elite athletes at the "Burnazyan FMBA". This urine was on top provided at a moment in time which cannot be linked to the alleged doping scheme as, it even according to Dr. Rodchenkov's scenario, at the time no one had managed to open the Berlinger bottles. Further, as the example of Mr. Ustyugov proves, the latter was, given the travel arrangements he had for that day, not in a position to provide a urine sample on 5 October 2012 as he was either in a plane or completing all the necessary steps to embark. In any event, as a Panel already noted in the Other Proceedings, keeping 7 mL of clean urine is pointless as it makes only sense to create a urine blank for later sample-swapping if there is sufficient quantity.

74. The Appellant thus concludes that no reliable evidence contradicts her statement that she never provided urine for the purpose of sample swapping.

f. The allegations of Dr. Rodchenkov

75. The Appellant considers that the unsupported allegations of Dr. Rodchenkov against her are not credible enough to constitute evidence against her.

76. In support of this consideration, the Appellant argues, inter alia, that:

- even before becoming the source of information on which Prof. McLaren relied on in his reports, Dr. Rodchenkov was not seen as a credible witness;
- Dr. Rodchenkov provided his testimony to Prof. McLaren in a situation where he was facing deportation from the United States and - likely - criminal prosecution in Russia. Thus, he had an interest to tell a spectacular story which would increase his chances of being able to stay in the United States;
- Dr. Rodchenkov acknowledged that he has never seen an athlete take the Duchess Cocktail, that he has never seen an athlete give a clean urine sample, that he has never seen an athlete tamper with his or her sample, that he has no evidence that athletes had sent their DCFs to Ms Rodionova.

77. The Appellant further maintains that Dr. Rodchenkov's accusations against her are contradicted by solid evidence, as every single stage of the doping scheme he described is proven wrong: the Appellant never tested positive to any of the substances of the Duchess Cocktail; Ms. Rodionova categorically denies having been part of the scheme; it is proven that her alleged assistant, Mr. Kiushkin, never worked for the CSP; it is established that the CSP never purchased refrigerators to store the clean urine; it has been shown that the urine provided on 24 October 2012 by the Appellant was only collected for medical purposes; there is absolutely no evidence that the bottles containing the Appellant's urine have been manipulated – the scientific evidence establishing the contrary.

78. The Appellant notes that, in any event, she was certainly not protected as she had been duly warned by the RUSADA and the IBU for having missed a doping test.

79. Furthermore, there are, according to the Appellant, many inconsistencies in Dr. Rodchenkov's testimony against her:

- Dr. Rodchenkov testifies that the Russian biathletes participated in the Izhevsk Russian Cup between 17 and 22 December 2013. The biathletes were allegedly tested by the Moscow lab to make sure that the Duchess Cocktail was not detectable. However, the Appellant did not participate in this competition and was training abroad, as reported in her whereabouts;
- Dr. Rodchenkov alleges that “*On February 14, 2014, the Team performed poorly in the 15k Individual Race despite their use of the Duchess cocktail*”. These allegations are absurd and misleading as the Appellant did not take part in the 15km individual race on that date.

80. The Appellant adds that the serious accusation of Dr Rodchenkov against the former manager of the Russian Biathlon Union, to have purchased doping substances for a price of USD 15,000, are refuted by Mr. Kushchenko himself and his driver Mr. Besklinsky.
81. In view of the above, it is not surprising that the Panels in the Other Proceedings did not find Dr. Rodchenkov credible and did not use his testimony in order to sanction any Russian athlete in those proceedings.
 - g. *The Laboratory Information Management System (“LIMS”)*
82. The Appellant considers the fact that her name allegedly appears in the LIMS of the Moscow laboratory, although certainly not good practice, is not something she can be held responsible for. In addition, she notes that, more importantly, the LIMS does not indicate that samples provided by her had ever tested positive to prohibited substances and that she was covered up by the laboratory and its former director, Dr. Rodchenkov. Thus, the LIMS, and the hidden parts of the LIMS, would confirm that she never tested positive for any prohibited substances during her whole sporting career.
83. In view of the fact that the evidence produced by the IOC in relation to the LIMS has not been forensically cross-examined, that the corresponding IT data has not been submitted to the Appellant nor to the Panel and that this element was not part of the evidence submitted before the IOC DC, said evidence would not be admissible evidence in the present Appeal. In any event, the Appellant firmly contests the reliability of the evidence submitted by the IOC.
84. In her closing submissions, the Appellant observed, with regards to the context of the case, that the present case was not about the existence of the general doping scheme in Russia as the Appellant was not training in Russia and spent most of her time outside of Russia. Her case has therefore to be distinguished with the cases dealt with in the Other Proceedings.
85. As to the facts, the Appellant noted that the IOC’s case is based on four propositions of Dr. Rodchenkov, propositions which would all be wrong.
86. First, that the Duchess List is not a reliable and compelling evidence.
87. Second, all evidence would show that the Appellant did not take the Duchess Cocktail during the Sochi Games as (i) all samples were tested negative and even the retests with improved methods turned out negative, (ii) that 7 out of the 11 bottles in question in the three parallel cases (CAS 2017/A/5334, 5435 and 5444) showed no T-marks whereas the experts stated that one could not open fully closed bottles without leaving T-marks; (iii) DNA tests show that the urine in the sample bottles is from the Appellant, and (iv) the blood anti-doping test performed during the Sochi Games was negative as well. Moreover, the LIMS data is not admissible evidence because it is not part of the scope of the Appealed Decision. In any event, the LIMS data does not refer to any prohibited substance found in relation with the Appellant. Finally, Dr. Rodchenkov has not seen anything: he did not distribute the Duchess Cocktail to any athlete, he has never seen the Athlete taking the Duchess Cocktail and the Athlete has never met Dr. Rodchenkov.
88. Third, there is no evidence that the Appellant ever provided “clean urine” for the purpose of a “clean urine bank”. The only time that the Appellant provided urine outside of the anti-

doping tests was for official medical check-ups, like the one done on the 24 October 2012 at the Burnazyan Hospital, meaning at a time were the so-called “magicians” had not been able to open closed sample bottles.

89. Fourth, the IOC’s proposition that all the sample were automatically swapped at night in the Sochi Laboratory would be wrong. All experts would agree that you cannot open a bottle without leaving marks or T- marks. However, in the three parallel cases, there would be 7 samples with no T-marks and, thus, one could not argue that the expert reports confirm that the urine in the sample bottles has been automatically swapped. When looking at the different samples of the athletes in these three parallel cases, there would not even be an indication of “target swapping”, i.e. the samples provided after competitions in which good had been achieved. In any event, the T-marks could come from anything (tool and/or the metal ring of the sample bottle), only some of the translucent plastic rings have so-called T-marks and there is no explanation as to the origins of “isolated T-marks”. Clearly the absence of marks on the vast majority of bottles would show that there was no tampering. Indeed, as the so-called “magicians” were not afraid to leave marks on the bottles, as the presence of such marks was not commonly controlled, they would, if they had to open the bottles, probably not have been very cautious and, thus, would have left marks. The fact that Prof. Champod broke many caps while trying to open them would proves that his demonstration failed as it is clear that not one cap of all the sample bottles related to the Sochi Games was broken. Thus, Prof. Champod’s evidence would not be reliable and not convincing enough to sanction athletes, to deprive them of their medals and to declare them ineligible for life in the Olympic Games.
90. Finally, concerning Dr. Rodchenkov’s signature, the Appellant reiterated her point of view that, although Dr. Rodchenkov acknowledged that he gave permission for his electronic signature to be used, there were documents on which such signature had not been used and someone else had signed on behalf of Dr. Rodchenkov. Moreover, Dr. Rodchenkov’s last affidavit, submitted during the hearing, would contain a contradiction and show that Dr. Rodchenkov does not know himself for which affidavits his electronic signature has been used. In addition, as Dr. Rodchenkov has asked, in the affidavits, the Panel to sanction the Athlete, it would be doubtful if it’s possible to rely completely on the testimony of such an “*independent witness*”.

B. The Respondent’s Submissions

91. The Respondent requests the following relief:
- i. The Appeal filed by Olga Vilukhina is dismissed.*
 - ii. The Decision of the IOC Disciplinary Commission in the matter of Olga Vilukhina (SML 024) dated 27 November 2017 is confirmed.*
 - iii. The IOC is granted an award for costs.*
92. Considering that the evidence against the Athletes has to be examined in the context of the overarching doping conspiracy and scheme that was allegedly in place in Russia before and during the Sochi Games, the Respondent’s submissions give, in a first part, a thorough overview of said doping scheme before addressing, in a second part, the Athlete’s individual

implication in that doping scheme. The Respondent's written submissions can be summarized as follows.

a. The overarching doping and cover-up scheme

93. As a preliminary remark, the Respondent observes that three independent investigative commissions, whose mandates endured and overlapped for a period of almost three years and involved the scrutiny of thousands of documents and forensic analysis of hundreds of athletes' samples, were satisfied that a doping and cover up scheme existed in Russia from 2011 until 2015. Furthermore, the existence of the scheme has, according to the Respondent, been admitted by, inter alia, the Russian Sports Minister and RUSADA.
94. The key elements of the doping scheme identified by the Respondent are the following:
95. First, the DPM, operated to protect athletes whose samples might otherwise have resulted in an AAF. Where the Initial Testing Procedure ("ITP") on a sample resulted in a presumptive AAF, well-known and elite level athletes had their initial ITP results automatically falsified and the analytical work was stopped. If the athlete was not automatically protected, the Moscow laboratory would communicate the presumptive AAF to the Russian Sports Ministry via a Liaison Person (usually Aleksey Velikodny). The Sports Ministry would then issue a "Save" or "Quarantine". A Save order meant analytical work was stopped and a negative result was reported in the Anti-Doping Administration and Management System ("ADAMS"). A Quarantine order meant analytical work continued as normal. The existence and operation of the DPM is corroborated by the LIMS database obtained by WADA in December 2017. The relevant LIMS database contains the testing data for the period from January 2012 to August 2015. This data also illustrates how analytical results were not only manipulated and incorrectly reported, but how they were also used to manage the protection scheme. WADA's Intelligence and Investigations Department carried out an investigation into the reliability of the Moscow LIMS and the McLaren Evidentiary Disclosure Package ("EDP") emails in relation to the DPM and concluded that the LIMS data is valid and that the possibility of the EDP emails being fake is so improbable that it must be rejected.
96. The Respondent adds, in this respect, that an Anti-Doping Hearing Panel of the International Biathlon Union ("IBU Panel") concluded that the EDP emails can be considered reliable evidence. The athlete in question, Ms. Glazyrina, who withdrew her appeal to CAS against her two-year ban was coached by Mr. Pichler. Furthermore, in June 2019, two male biathletes were sanctioned for ADRVs based on analysis of the LIMS database from 2012 and 2014, with periods of ineligibility of four years imposed under aggravating circumstances for "participating in an organised doping scheme".
97. Second, "Washout Testing" was used to determine whether performance enhancing drugs had cleared from an athlete's system prior to certain major events. This was necessary to ensure that athletes who were traveling abroad to compete – and would therefore be susceptible to being tested by foreign, independent testers – would test "clean".
98. Third, the scheme was adapted to take into account the specific situation that would be in place for the Sochi Games. Given the presence of international personnel in the Sochi Laboratory, it would not be possible to manipulate the ITP results and use the DPM. Thus, the Sample Swapping Methodology was developed by the end of 2012. It involved the

replacing of “dirty” urine with “clean” urine and necessitated the removing and replacing of the cap on sealed B sample bottles. By the beginning of 2013, the FSB team known as the “magicians” had succeeded in opening the Bereg Kit bottles without leaving any apparent marks. Also, around this time, the clean urine bank was built up by the CSP for the purposes of sample swapping at the Sochi Games. Ms. Rodionova’s team, including Mr. Kiushkin and Mr. Velikodny, collected athletes’ clean urine at training sites and during periods where the athletes’ urine should have tested clean, either before the doping protocol or because the sample was collected far after their washout period.

99. According to the Respondent, the sample swapping at the Sochi Laboratory, which relied on a number of actors in order to be effective, proceeded as follows: (i) samples arrived at the Sochi Laboratory and were registered by Mr. Evgeny Kudryavtsev, head of reception, storage, and aliquoting at the Sochi Laboratory; (ii) he separated the B bottles that needed to be swapped and brought them to aliquoting room with all the A samples; (iii) he passed the A and B bottles through a hole in the wall (the “Mousehole”) between room number 125, where samples were aliquoted (the “Aliquoting Room”), and room number 124, where samples were swapped out (the “Operational Room”); (iv) in the Operational Room, Dr. Rodchenkov and his assistant Mr. Yury Chizhov prepared a “Catch of the Day” table with the athlete’s names, code numbers, specific gravity measurements and the volumes needed to fill the A and B bottles. Officer Evgeny Blokhin retrieved the clean urine for the concerned athletes and brought it to the Operational Room; (v) he took the unopened B bottles and brought them away to be opened by FSB agents; (vi) he returned with the opened B bottles. Mr. Chizhov threw out the contents of the A and B bottles and washed out the bottles. Dr. Rodchenkov checked the specific gravity of the clean urine and adjusted it for specific gravity when necessary by the addition either of salt (to increase the specific gravity) or water (to dilute the sample and reduce the specific gravity).
100. The Respondent adds that the above description of the scheme in Sochi, based on Dr. Rodchenkov’s testimony, is corroborated and cross-referenced by the forensic examinations carried out by different experts and is further corroborated by various other strands of evidence including urine analysis establishing the presence of physiologically impossible levels of sodium in samples; scratches and marks evidence indicating that sample bottles had been tampered with; DNA analysis which established that some samples had mixed DNA; photographic evidence provided by Dr. Rodchenkov indicating the existence of the Mousehole and presence of various individuals in the laboratory; LIMS data containing the athletes’ names; and the EDP which gives the general framework of the scheme. Dr. Rodchenkov’s testimony in relation to Sochi would also be corroborated by contemporaneous entries in his personal diary.
101. As regards to the forensic evidence, the Respondent refers, first, to the high sodium values in some samples and a series of four emails exchanged between Mr. Kudryavtsev and Dr. Rodchenkov dated 8 May 2015 explaining the modus operandi of the adjustment of the specific gravity of the samples. The forensic experts appointed by Prof. McLaren observed levels of sodium which were so high, that they were deemed to be non-physiological. These experts also reported that in a few samples the level was so low, that it could not be physiological either. The observations of extremely high levels and extremely low levels would be consistent with results which could be expected as a consequence of the adjustment of specific gravity through the addition of salt or dilution with water. The expert appointed by the IOC, i.e. Prof. Burnier, carried out a review of samples from athletes taken

at Vancouver Games for the purpose of determining reference values for, inter alia, sodium urinary concentration in an elite winter sport athlete population. He then compared the levels from the Vancouver Games to the levels from Sochi for all Russian athletes. Doing that, he identified 13 samples from Russian athletes at the Sochi Games that were out of range and showed “*a very high (>99%) probability of manipulation*” by the addition of salt. He concluded that there was “*no possible natural explanation for the results obtained*” in the examined samples. Prof. Burnier’s review was not limited to sodium, but included other aspects, i.e. osmolarity ratio and the correlation between specific gravity and creatinine levels, which also confirmed that the samples values were unlikely to be physiological. In addition, all the samples in which out of range values were observed by Prof. Burnier were samples from athletes who are not only Russian but are the Russian athletes active in those sports in relation to which, according to Dr. Rodchenkov, sample swapping occurred. This would even give more weight to the forensic analysis conducted by Prof. Burnier, said analysis being incontrovertible proof that, as the Panels in the Other Proceedings concluded, all the concerned sample bottles were tampered with during the Sochi Olympics.

102. This evidence would be reinforced by, second, the scratches and marks that were found on those bottles by the forensic experts. Indeed, 11 out of 13 bottles with an abnormally high sodium level were found to bear marks sufficiently clear to draw a conclusion in regard of their opening. Prof. McLaren having appointed forensic experts with the aim to establish whether sealed Bereg-kit bottles could be opened without breaking the seal, said experts managed indeed to open and reclose previously closed bottles. However such opening would leave marks on the bottles which they classified depending on whether, in their opinion, these marks could be the result of normal usage of the bottles (Type 1 marks) or supported an indication that the bottle had been surreptitiously reopened (Type 2 marks) using a method similar to the one they had applied. Following this first expert investigation, the IOC decided to commission a broader forensic investigation into the issue of sample bottle opening and appointed Prof. Champod to conduct this investigation. The Respondent submits that this forensic analysis (Prof. Champod’s first report) established a number of important points. In summary:
- Prof. Champod’s team established that it was possible to use special tools to reopen a closed Bereg-Kit bottle. The use of such tools left marks on the bottles that were detectable under a microscope;
 - Having confirmed the possibility of opening samples, Prof. Champod then developed an examination protocol aimed at systematically identifying and recording marks found on bottles caps through microphotography of all the faces of a given bottle. The aim of the examination was first to establish a reference body of marks observed both on bottles which had been regularly used and on bottles which were subject to opening through the method they had developed. The first group was to serve as a non-distinctive background of marks left by manufacture or usage expected on a bottle used normally, while the second group served to establish marks distinctive from the one observed in the negative group on bottles which had been opened. 22 bottles were subject to opening to serve as a “positive” test group. Given the fact that, at this stage, the team found opening bottles fully closed at 15 clicks would be leaving marks which would be too easily distinguished, Prof. Champod decided that the opening on the bottles of this test group would be operated at a closure level of 11 clicks. This choice was meant to improve the resulting sensitivity of the method and was in that

perspective logical: the marks left would be of the same type but less obvious. As such and, provided they remained distinctive from marks existing on regularly used bottles, this would thus improve the sensitivity of the method when searching for traces of potential opening.;

- Prof. Champod distinguished the marks observed and classified them according to their sources in three categories: (i) “F-mark” when the mark shows attributes associated with the manufacturing process, (ii) “U-mark” when the mark shows attributes associated with normal usage of the bottle, and (iii) “T-mark” when the mark shows attributes associated with the use of a tool inserted between the plastic cap and the glass container. By default, any mark which could not be classified clearly would be classified as a U-mark. This meant that no mark was left unclassified and that since the presence of U-marks and F-marks had no influence on the conclusion whether it was likely that the sample was subject to surreptitious opening, the fact that an additional specific sub category of non-specified marks was not established was of no relevance, as it had no possible impact on the evaluation of the bottles;
- In total, Prof. Champod analysed 232 sample bottles containing samples obtained, from Russian athletes during the Sochi Games. Of those 232 samples, a total of 36 were found with multiple T-marks. This would provide “very strong support” for the proposition that those bottles had been tampered with. Bearing in mind that the examination was conducted blind on a wide group, it would be essential to note that all 36 bottles that contained multiple T-marks belonged to athletes who were part of the suspect group, i.e. presence on the Duchess List or participants in the same sport as athletes on the Duchess List and/or member of the Women’s Hockey Team;
- No fewer than 11 out of the 13 samples found with abnormal salt levels were also found with distinctive multiple T-marks. This would reinforce considerably the fact the study is based on a valid determination of marks which, when present, do confirm that the bottles were actually opened;
- Bottles which were surreptitiously opened do not necessarily bear conclusive marks of opening. Indeed, from the only two “salt” samples found without concurring multiple T-marks, the one without any T-mark was the sample with the most elevated level of sodium, namely 843 mmol/l;
- Prof. Champod also established that in the case of 23 of the 36 bottles that had multiple T-marks, it was possible to infer the initial degree of closure of the bottle cap before the cap had been reopened and replaced. This analysis indicated that all 23 of these bottles were not closed to the maximum level before they were reopened.

103. Following the questions raised and doubts expressed by the panels in the Other Proceedings, Prof. Champod carried out additional analysis and prepared a complementary report (the “Second Champod Report”) setting out additional evidence gathered in respect of four athletes, including the Athlete. Prof. Champod and his team drew the following conclusions:

- No credible evidence was found to suggest that the T-marks documented in the questioned bottles could be due to transportation. The possibility for alternative hypotheses for the production of T-marks, including transport, was constantly assessed through the use of single and double blind samples alongside the questioned bottles;

- Bottles initially closed at 15+ clicks and containing liquid urine, can be re-opened using tools. The tools leave recognizable marks at defined locations on the inside of the plastic cap. These marks are expected regardless of the type of metallic tools used and can be distinguished from marks generating by the manufacturing process or through normal usage;
 - The sample size used to study the U-marks under controlled conditions was not 11 bottles as suggested by the CAS, but 105 bottles for a total of 1,260 plastic cap faces. This sample is large enough to gain a full understanding of the marks left on the bottles following their regular closure;
 - The assignment of labels to marks (F, U and T) was made adopting a conservative approach making the need for an “inconclusive” category redundant as any mark of disputed status would be assigned by default to the U-mark category-marks.
 - The conclusions reached following the examination of marks were never meant to be per se “conclusive evidence” of tampering. When multiple T-marks were observed, the findings provided “very strong support” for the allegation of tampering but did not aim to demonstrate “conclusively” that the bottle had been re-opened. If both propositions were equally likely before carrying out the examination of the potential marks, the findings would support the conclusion that the bottle was very likely tampered with, with a percentage probability above 99.9%;
 - In relation to one additional bottle, the mark left by residues below the small tooth of the metal ring did not correspond to the shape of the small tooth itself, i.e. the cap was opened and when reclosed, the metal ring was not put back on in the same position. This would be absolute proof that certain bottles, at least, were opened.
104. In the present case, one of the Athlete’s samples, sample B2891822, contains multiple T-marks, which according to Prof. Champod’s expert report supports the conclusion that the bottle was very likely tampered with, with a percentage probability above 99.9%.
105. Seen in their specific context, the results of the examination by Prof. Champod bring evidence which can satisfy to a very high standard and certainly the one of comfortable satisfaction, the conclusion that the presence of marks attest the opening of the concerned sample bottles. In addition, there would be a convergence in respect to the DNA evidence insofar that samples found with abnormal DNA results also bore marks significative of opening according to the study performed by Prof. Champod.
106. The fourth and last element would be found in the LIMS. It appears from this documentary evidence that names of Russian athletes tested in Sochi, including in particular the name of the Appellant, are expressly mentioned in the LIMS in connection with the corresponding sample numbers. This would be the proof that the laboratory knew the names of the athletes to whom the samples belonged. The corresponding content of the LIMS is confirmed and described in the report issued by Mr. Aaron Walker of WADA Intelligence and Investigations. As WADA accredited anti-doping laboratories are never supposed to know the names of the athletes who deliver samples for analysis, this documentary evidence alone would in and of itself be sufficient to establish that the laboratory process was fundamentally corrupt in Sochi in regard to the concerned samples. Moreover, this evidence would show one of the features of sample swapping, i.e. the communication of the identity

of the athletes to the laboratory, as described by Dr. Rodchenkov, did indeed happen. This element would also establish a link to the Appellant as she was one of the only parties who had access to the information needed, i.e. the sample number which is on the athlete's copy of the DCF. A second report by Mr. Walker would show data associated with the LIMS allowing to conclude that Mr. Kudryavtsev was not only directly involved in swapping, which was already demonstrated by the EDP evidence, but actively engaged in the actual faking of laboratory documents and substitution of samples to cover up the scheme in the context of the WADA investigations. The Respondent therefore submits that his testimony and in particular any document he is providing should not be given any credibility or weight.

b. The Appellant's implication in the scheme

107. As an opening point, the Respondent submits that in the present case the Panel must reach its decision looking at the existing strands of evidence which, together, form a conviction strong enough to comfortably support a conclusion that an individual athlete has been personally involved in the scheme. To do so, the Panel would have to start by asking the question whether there are indications that the Athlete may have been involved. This is notably linked with the issue of the sport in question, the presence on the Duchess List and also the personal profile of the Athlete. The first of these elements would be of contextual nature, whereas the next ones would be of an objective nature. Further, it is, according to the Respondent, evident that the objective of the scheme could not be achieved if the Athlete did not know that she was benefitting from a "doping carte blanche". The effective implementation of such a system requires the active and conscious participation of the Athlete. This would be particularly true for the provision of clean urine for the clean urine bank in the form it was implemented in Sochi, for which the athletes had to deliver significant amounts of urine. Accordingly, when and once an athlete's involvement is considered as established and especially when swapping with her own urine is confirmed through presence of urine with elevated sodium level, presence of significant marks or foreign DNA, then the inference would necessarily follow that her involvement in the scheme required personal knowledge thereof and participation therein.
108. The Respondent notes that the panels in the Other Proceedings reached that exact conclusion when addressing the cases in which they accepted the evidence relating to abnormal sodium level as conclusive in regard to swapping. According to the Respondent, the same conclusion has however also to be drawn based on the presence of multiple T-marks implying, when assessed in context, that a sample was opened and swapped as one would not open a B-Sample just to leave the same urine inside. The LIMS would bring further evidence that the athletes concerned were active participants in the scheme, as they are the most likely source of the information linked to their respective sample numbers.
109. In the present matter, a first element of evidence of the Appellant's personal involvement would be found in Dr. Rodchenkov's testimony and the fact that her name appears on the Duchess List. In particular, Dr. Rodchenkov recalls that the Appellant's urine samples collected at the Sochi Games were swapped. Given that Dr. Rodchenkov has no specific interest in incriminating the Appellant, his testimony should be preferred to the ones of the Appellant herself and Dr. Rodionova. In any event, Dr. Rodchenkov's allegation that the biathlon team was affected by doping practices has been proven correct as several athletes have failed EPO tests or were convicted for using the Duchess Cocktail substances. In relation to the list of samples purportedly from the Burnazyan FMBA hospital, the

Respondent observes, *inter alia*, that: (i) it is strange that it only appears in the present proceedings before the CAS and has never before been offered as an explanation; (ii) the volume of urine listed for a sample could indicate the amount that was left over after a prior analysis and the date indicated on the list could be the date samples were brought to the Moscow laboratory, (iii) the Appellant fails to explain how a list of urine samples allegedly collected by a hospital for the purposes of a medical check-up ended up in the possession of the Moscow antidoping laboratory.

110. A second element of evidence showing the Appellant's personal implication in the scheme would be the multiple T-marks contained on the Appellant's sample B2891822. The respondent recalls that Prof. Champod's expert report concludes that this bottle was very likely tampered, with a percentage probability above 99,9%. In view of the fact that the relevant sample of the Appellant was found with multi T-marks, that the Appellant is on the Duchess List and that biathlon is a targeted sport, the Respondent submits that the results of the forensic analysis performed by Prof. Champod become strong conclusive proof establishing at a level well above comfortable satisfaction that the Appellant's sample B2891822 was tampered with.
111. The third and final element pointing at the Appellant's personal implication in the scheme would follow from the fact that, contrary to proper practice, the Appellant's name appears in LIMS, indicating that she was to be identifiable to the Laboratory for the purposes of sample swapping. This would confirm that the doping control process was corrupted in connection with her samples and the Appellant herself, or her support personnel, which would be the same, would be the most likely source of the information contained in the DCFs.
112. With regards to the standard of proof, the Respondent observes that the standard which is to apply in the present matter is "comfortable satisfaction", but such shall be exercised taking into consideration the particularities of the matter. The Respondent submits that the Panel shall be first comfortably satisfied that the conspiracy existed and of its substance. If the evidence sufficiently supports the fact that an athlete was effectively involved in the scheme, then the Panel should not set too high a hurdle to draw the inference that as a participant in and beneficiary of the scheme, the athlete be held accountable for it.
113. Concerning the specific ADRV's committed by the Appellant, the Respondent recalls that the IOC DC has established violations pursuant to the 2009 WADC for (i) tampering (articles 2.5 and 2.2), (ii) use (article 2.2) and (iii) cover-up/complicity (article 2.8).
114. More particularly, the Respondent notes that the definition of tampering as a Prohibited Method pursuant to the M2 Prohibited List relates to alterations of the integrity and validity of the sample, specifically including urine substitution. The actions described in this definition appear to correspond precisely to the main features of the scheme that occurred in Sochi. Indeed, in these cases, the subversion of the Doping Control process was achieved by substitution of the urine collected during the test with other urine. This substitution requires the surreptitious opening of the bottle and as such, it alters the integrity of the samples. On this basis, the Respondent submits that the present case should be considered as a violation of article 2.2 of the 2009 WADC, pursuant to the definition of tampering set out in Chapter M2.1 of the 2014 edition of the Prohibited List, rather than as tampering under article 2.5 of the 2009 WADC. The Respondent further submits that, given the

respective formulations of article 2.2 and article 2.5, the latter “*covers a broader concept of tampering and constitutes a lex generalis*”. Accordingly, to the extent that any conduct does not fall within the ambit of article 2.2, it would fall under the wider ambit of article 2.5. The Respondent underlines that the panels in the Other Proceedings followed a similar approach. The Respondent further submits that under article 2.2 of the 2009 WADC, a violation may occur even in the absence of knowledge of the violation. Consequently, it would not be necessary to establish that the Appellant was a conscious participant in the scheme and was aware of purpose in order to establish a violation of this provision. In any event, the possibility that the Appellant was a mere unknowing participant could reliably be excluded. In conclusion, the Respondent submits that it is possible and necessary to confirm that (a) a violation of article 2.2. of the 2009 WADC is established and, subsidiarily (b) the same factual circumstances also constitute a violation of article 2.5 of the 2009 WADC.

115. According to the Respondent, the Appellant also committed an ADRV of use of a Prohibited Substance. This could be inferred from the Appellant’s name on the Duchess List or her *ad hoc* protection, which may be deduced from the objective results of the forensic examinations. According to the Respondent, the protection from which the Appellant benefited allowed her to use Prohibited Substances and this protection, which was specifically in place during the Sochi Games, had the purpose of allowing the use of Prohibited Substances during that period. The urine substitution would be devoid of any sense and logic if its purpose was solely to substitute the samples of clean athletes.
116. In respect of the ADRV for cover-up/complicity, the Respondent submits that the scheme implemented during the Sochi Games involved a complex conspiracy involving numerous categories of participants including athletes, intermediaries, laboratory staff and representatives of the Ministry of Sport. All of those individuals were participants in a conspiracy, which had the specific objective of covering up doping. The Appellant’s participation in that conspiracy constituted violation of article 2.8 of the 2009 WADC. In support of this submission, the Respondent refers to the award in CAS 2007/A/1286, 1288 & 1289 J. Eder, M. Tauber & J. Pinter v. IOC, where the CAS applied the concept of a vertical conspiracy pursuant to which an athlete who, for his own interests, participates in a conspiracy involving other athletes, commits a violation of Article 2.8 of the 2009 WADC. The respondent further notes that under article 2.8 of the 2009 WADC a person who commits “*any other type of complicity involving an anti-doping rule violation or any attempted antidoping rule violation*” commits a violation of this article. In this connection, in CAS 2008/A/1513 Emil Hoch v. FIS & IOC, the panel explained that this provision “*covers violation numerous acts which are intended to assist another or a third party’s anti-doping rule violation*”. The panel further explained that while article 2.8 does not expressly state how substantial the assistance must be in order to constitute a violation of the article, “the standard is probably quite low because according to the wording even just ‘any type of complicity’ is sufficient”. According to the Respondent, the complicity the Appellant engaged in certainly meets, and indeed far exceeds, the low standard deemed sufficient in the Hoch case. The Appellant’s assistance was of a repeated nature, i.e. athletes provided 5-7 samples of clean urine and was fundamental to the success of the sample swapping scheme. Moreover, the Appellant knew of the ADRV from a number of pieces of direct evidence as she herself provided clean urine for the urine bank and communicated information regarding the collection. The Respondent considers that the panels in the Other Proceedings applied a standard that was higher than the one set out in the Hoch case and holds that the Panel appointed in the present case should determine which standard is to be

applied, knowing that if it was the Hoch standard, the facts and evidence of this case establish to the comfortable satisfaction of the Panel that the actions of the Appellant fulfil the elements of complicity under Article 2.8 of the 2009 WADC.

117. As regards to the sanctions, the Respondent submits that, as a consequence of the ADRVs which the Appellant is alleged to have committed, her individual results for the Sochi Games should be annulled with all resulting consequences. The results of the competitions directly concerned by a sample for which tampering is directly and objectively established are already to be automatically disqualified in application of Article 7.1 of the IOC ADR. As far as the other results are concerned, the Respondent considers that the Appellant has not demonstrated she bears no fault or negligence. Thus, the only conceivable consequence would be the disqualification of any and all results of the Appellant at the Sochi Games, in application of Article 8.1 of the IOC ADR. The nature of the violations and the circumstances of this case would make this consequence inescapable.
118. In addition to those individual disqualifications, the results of the relay competitions in which the Appellant took part shall also be annulled in application of Articles 9.1§3 of the IOC ADR and 11 of the 2012 IBU ADR. The Respondent notes that the athletes who are conducting parallel appeal proceedings in cases CAS 2017/A/5435 and 5444 were also participants in the two relay events concerned: the Relay Mix Biathlon event (Ms. Olga Zaytseva ~ 4th place) and the Women's 4x6km Relay Biathlon (Ms. Yana Romanova, and Ms. Olga Zaytseva – 2nd place).
119. Further, the Respondent submits that the Appellant should be subjected to a lifetime ban, and should not be allowed to participate in any future editions of the Games of the Olympiad or the Winter Games. Pursuant to Article 7.3 of the IOC ADR, it had a measure of discretion in determining the appropriate power to declare an athlete temporarily or permanently ineligible from participating in subsequent editions of the Games of the Olympiad and the Olympic Winter Games. This measure would correspond to Article 59 §2.1 of the Olympic Charter. Admittedly, CAS jurisprudence establishes that sanctions must not be disproportionate to the offence and must always reflect the extent of the athlete's guilt. However, in the present case, the Appellant's conduct has shocked the world at large and constitutes "*the most serious example of systemic cheating in the history of Olympic sport*", she has, as part of the institutionalised cover-up, caused severe damage to the image of the Olympic Games. It would thus be inconceivable that the Olympic Movement would have to continue to accept in its events any athlete or person having been implicated in such a scheme. The application of a measure of ineligibility would moreover be justified by the fact that the Athlete was part of a conspiracy, which infected and subverted the Olympic Games in the worst possible manner and directly affected their core values. Given the severity of the prejudice and the long-lasting harm that has been caused to the Olympic Movement, the Respondent submits that the ineligibility shall apply to all future editions of the Games of the Olympiad and Olympic Winter Games.
120. In this respect, the Respondent adds that the issue that confronts the Panel is not limited to considering whether it is legitimate to declare ineligible an athlete who committed an individual ADRV that did no more than impugn his own personal integrity. Rather, it concerns the sanctions that may properly be imposed when an individual participates in a conspiracy "which, beyond the anti-doping rule violations which it involved, constituted a fundamental breach of the Olympic values and, as such, ethically unacceptable

misbehaviour – within the meaning of Article 59 §2.1 of the Olympic Charter. The Respondent submits that, against this backdrop, the imposition of lifetime bans is clearly supported by this disposition. Besides, in CAS 2007/A/11286-1289, a CAS Panel had concluded that the same measure applied in a context of lesser conspiracy was legitimate. The respondent further argues that the position of the panels in the Other Proceedings, according to which they were “*not required to, and did not, examine whether the ADRV committed in Sochi by the Athlete was part of a general cover up scheme orchestrated during the Sochi Games...*” is inadequate in two respects: (i) if the determination of the existence of the scheme would be, as stated, at least decisively relevant to decide the length of the ineligibility, then the panels in the Other Proceedings, contrary to what they stated, were required to make a determination on an element which the Respondent submitted was essential in all respects and (ii) the observation that there was no examination whether there was a general cover up scheme in Sochi is paradox as these panels found *a minimo* that no fewer than 12 urine samples of Russian athletes had been swapped in circumstances in which this could only occur through sophisticated surreptitious opening of sealed samples at the Olympic laboratory. The position of those panels not to consider that the above constitutes a cover-up scheme aimed at protecting Russian athletes against AAF would amount to a denial of reality. The Respondent thus encourages the Panel in the present proceeding to this matter to adopt a broader view when considering the merits of this matter.

121. As far as the length of ineligibility is concerned, the Respondent maintains that it is adequate that actual participants to such a scheme should never participate again in the Olympic Games. A reduction of the ineligibility to only one edition of the Olympic Games would not take into consideration that the present matter is not just about an individual violation and but also about an element of a far-reaching doping scheme. In any event, in the present matter, the decision to be made in this respect would have, at this stage, mainly a symbolic significance as the Appellant has effectively retired from active sport and as the Respondent retains the right to determine eligibility and accreditation to future editions of the Olympic Games.
122. Finally, concerning the consequences beyond the Olympic Games, the Respondent notes that in application of article 8.3 of the IOC ADR, the further management of the consequences of the ADRV's, and in particular the imposition of sanctions over and above those related to the Sochi Games, shall be conducted by the IBU.
123. In its closing submissions, the Respondent remarked, as a preliminary point, that Russia is still changing evidence, that Biathlon is not a different world from other sports already examined in the Other Proceedings and that it is uncontested that there have been cases of doping in Mr. Pichler's team.
124. With regards to the general context of the case, the Respondent argued that although it might have been easier to influence the specific gravity of the urine by adding something else than sodium, it is obvious that adding sodium works, that it was safe as nobody normally analyses the sodium levels in the samples and that it is what was done as shown by the findings of levels that are, according to all experts, physiologically not explainable. It would thus be obvious that there was a pattern at the Sochi Games. These Games were particular insofar as all the manipulation occurred in the Sochi Laboratory. The EDP and the LIMS would show how the evidence of doping was generally suppressed. Due to the fact that at the Sochi Games there were observers in the Sochi Laboratory, the manipulation had to be

done in a way to establish a doping-control free environment. That would explain why there is no correlation between results and why there is no link between medals and possible doping.

125. Regarding the evidence, the Respondent noted that Dr. Rodchenkov did explain the system and his explanations turned out to be corroborated by all corresponding evidence. There would on the contrary be no proof that Dr. Rodchenkov manipulated the system all alone and for his own financial benefit. It would be important to take a stand on whether or not something went badly wrong in Sochi. In the Respondent's view, the evidence clearly shows that something did go wrong. The IP and IOC started by checking the explanations given by Dr. Rodchenkov, i.e. that salt was added, and they found that salt was added to the samples. There would be no explanation for the salt levels found in some samples, and in particular in one of the samples of Ms. Zaytseva. A comparison with the Vancouver Samples would show that 13 of the Sochi Samples clearly stand out from the others, and this even though the very high outliers had an impact on the calculation of the average value. The IOC would have an explanation for these outliers that fits the scenario: salt was added.
126. This explanation would be corroborated by other evidence, namely scratches and marks on the sample bottle caps. In this regard, the Respondent argued that, contrary to what the Appellant has asserted, it would not have made sense for the FSB not to pay attention to not leave marks on the sample bottles as whenever you do something hidden you would try to hide it the best you can. Further, the FSB had a long time, i.e. more than one year, to prepare and train on how to open bottles with leaving the least possible marks. All the bottles with high sodium values and scratch marks on the caps were found within the target group indicated by Dr. Rodchenkov. The same would be true for issues related to mixed DNA. The general findings would again corroborate Dr. Rodchenkov's explanations.
127. The Respondent explained that the scheme was maybe not perfect, and that the people responsible for the scheme might have missed something. The EDP and, in particular, the LIMS could deliver such element. Further, as established, the sample with the highest salt level had no relevant scratch marks and, thus, it has to be concluded that salt was added, and the bottle opened to do so. The Respondent contends Mr. Arnolds statement according to which all other possible origins of the scratch marks should have been tested. Further, the Respondent rejects the idea that the T-marks could have been produced by the freezing and thawing of the bottles or by an athlete playing with the metal ring of the bottles and points out that Mr. Arnold has given no credible explanation for the marks in the context of the bottles in question. Moreover, the SB and DB bottles would clearly show that the T-marks could not come from normal use as they are never found on "normal use" bottles. Whenever T-marks are found, they are found within the group of people figuring on the Duchess List and competing within a specific sport. The Respondent highlighted again the importance of Dr. Rodchenkov's diaries and photographs of the "mousehole" between the Sochi Laboratory rooms.
128. A last important piece of evidence would be constituted by the LIMS data, data which the panels in the Other Proceedings did not have. This data would show that the doping control system on the Russian athletes at the Sochi Games was fundamentally flawed. This could leave to a removal from all the Russian results because it would show that there was a fundamental "process failure" as the Sochi Laboratory knew to whom the samples belonged. If the Panel were to accept that the general doping scheme existed, then the

Athlete should not be considered as acting as “individual athlete” but as part of the scheme and the only question would, then, be if the IOC has presented evidence linking the Athlete to the scheme. The answer to that question would obviously be yes as evidence of opening or added salt would necessarily mean that the Athlete had participated by providing clean urine, not in 2012, but later, when the clean urine bank was set up. In any event, there would be no explanation of how the analysis of urine provided in a hospital would end up at the Moscow Laboratory.

129. Regarding the Athlete’s case in particular, the Respondent recalled that the T-marks found on the Athlete’s sample have not been observed on any of the SB and DB bottles and could, thus, be explained by nothing else than a forced opening of the bottle. The Respondent further observed that the Athlete’s name was found in the LIMS in relation to certain of her samples.
130. All in all, there would therefore be clear evidence of the scheme and a clear link of the Athlete to said scheme.

V. EVIDENTIARY PROCEEDINGS

A. Factual Evidence

131. In the present proceedings, in deference to the Other Proceedings, the Parties agreed that in connection with factual evidence, apart from the Appellant herself, no witnesses were to be heard at the hearing, so that the Panel should rely on the witness statements and affidavits provided by the different witnesses.
132. The Appellant submitted witness statements of the following individuals:
- **Mr. Mikhail Dmitrievich Prokhorov**, the former president of the Russian Biathlon Union, who, in relation to the Affidavits of Dr. Rodchenkov dated 2 November 2017 and 15 January 2018, categorically rejects the allegation that he had paid millions for the silence of people to an alleged doping of Ms. Irina Starykh. He further states that he was an outspoken critic of the existing system of Russian sport management and had appointed foreign coaches and resisted pressure from the former Minister of Sport, Mr. Vitaly Mutko. He affirms that before the publication of the First McLaren Report, he had never heard the names “Irina Rodionova” or “Stanislav Dimitriev” and had never seen these people. He finally states that he is convinced that the Appellant is innocent and was not involved in the so-called “State-Sponsored Doping Programme”.
 - **Ms. Irina Rodionova**, the former Deputy-Director of the CSP, who took position, in a first witness statement, inter alia on the different affidavits provided by Dr. Rodchenkov respectively dated 6 December 2017, 2 November 2017, 5 November 2017, 5 November 2017 (in respect of Ms. Yana Romanova), 5 November 2017 (in respect of Ms. Olga Vilukhina), 18 November 2017 (in respect of Ms. Olga Zaytseva) and 15 January 2018. In this first witness statement, she stated that Dr. Rodchenkov’s allegations in respect of herself were fabricated and not true. She affirmed never having been involved in the allegedly existing “State-Sponsored Doping Programme” that allegedly included the urine sample swapping scheme and firmly believing that there was no such programme in place. Further she states not having coordinated the

use of PEDs by the athletes, not having arranged for collection of “clean” urine and not having distributed PEDs either. She gave a number of specific explanations on why she considered that Dr. Rodchenkov’s allegations were not true. In particular, she explained (i) why Dr. Rodchenkov could have had feelings against her, leading him to come up with fake stories against her, (ii) that she had never heard of the so-called “Duchess List” and certainly was not involved in aggregating such list, (iii) that there was a “medals by day list” based on the research of Canadian scientists Allinger Consulting International Inc. pertaining to the forecasts on the medal distribution at the Sochi Games, (iv) that, until the publication of the First McLaren Report, she did not know about the doping called “Duchess Cocktail”; (v) that she has never arranged for collection of “clean urine” of the athletes, has never stored it at the CSP (no storage room and no refrigerators), and certainly did not have it transferred to the FSB, (vi) that initially she had not planned on going to the Sochi Games and that, as the decision to go nonetheless was a last minute decision, she did not have an accreditation and did not stay at the Olympic village, (vii) that she only had a phone that could not receive photographs and did not have any communications with athletes from the Russian National Olympic Team; (viii) that allegations related to Ms. Zaytseva are wrong and that she never attended any meeting with Dr. Rodchenkov and Mr. Nagornykh to discuss the “case” or ABP data of Ms. Zaytseva, (ix) that, on 8 January 2015, she could not have attended the meeting in Moscow described by Dr. Rodchenkov as she was , from 3 to 9 January 2014, in the “Nord Avenue” guest house in Krasnodar. In her second witness statement, dated 27 January 2020, Ms. Rodionova gives more additional information in relation to an affidavit of Dr. Rodchenkov dated 12 November 2019, and refutes all contained therein as false and untrue, in particular, (i) that she did not and could not have any contact with Ms. Komarova from 2006 onwards, (ii) that there were no races in Oberhof (Germany) in December 2013 and that she could not prevent Ms. Glazyrina from competing at that race; (iii) that she was never acquainted with someone called Aleksei Kiushkin and did not have an assistant of that name.

- **Mr. Sergey Vladimirovich Volvak**, an IT specialist working at the CSP since 2013, who stated that he assisted, from 2013 onwards, Ms. Rodionova with PC-related work and performed other paperwork duties, such as preparing various documents for meetings at the CSP and meetings of the Expert Council of the Russian Ministry of Sport, as instructed by her. He further affirms that he has never seen Ms. Rodionova preparing a list of “protected athletes” or the “Duchess list”, or participating in a search for the components for the so-called “Duchess” cocktail, preparing and distributing the same, or arranging for the collection of “clean” urine, its storage in the CSP and transfer to the FSB. According to Mr. Volvak’s witness statement, he has never heard Ms. Rodionova saying the name of Mr. Rodchenkov or mentioning the names of any prohibited substances Oral-Turinabol, Oxandrolone (Anavar), Methenolone (Primobolan), Trenbolone (Parabolan) and others, no person called Aleksei Kiushkin has ever worked with him and Ms. Rodionova at the CSP. Finally, Mr. Volvak states that there were no refrigerators or other refrigerator units in the CSP. Thus, Dr. Rodchenkov’s allegations about the storage of “clean” urine in the CSP would be false.
- **Ms. I. N. Hachalova**, head of human resources at the CSP, stating that Mr. Aleksei Kiushkin has never had any employment relations with the CSP.

- **Mr. A. M. Kravtsov**, director of the CSP, stating that from 1 January 2010 to 31 December 2014, no refrigerators or refrigerator units have been purchased for the storage of the athletes' biomaterials.
- **Mr. Evgeny Romanovich Ustyugov**, a former professional Biathlete, stating that he has never given any urine samples outside standard doping control procedures, save for insignificant volume of urine given in the course of regular medical check-ups conducted twice a year. He further declared that on 5 November 2012, when according to the IBU allegations he purportedly provided "clean" urine, he arrived from Krasnoyarsk to Moscow in Domodedovo airport at 7.45 AM together with his wife and daughter and, immediately following the completion of necessary pre-departure procedures, he went to a training camp in Austria by flight Moscow-Vienna departed at 10.45 AM from the same airport, which would be confirmed by the relevant air tickets. He affirms that, save for a couple of hours he spent in flights and at the airport, he was in Austria on that day and could not have possibly given "clean" urine on the given day. Furthermore, he states that, from the practical point of view, it seems impossible to provide a urine sample in the volume of 7 ml.
- **Mr. Sergey Valentinovich Kushchenko**, Executive Director of the Russian Biathlon Union between 2009 and June 2014 and First Vice-President of the IBU between September 2010 and September 2014, states that prior to the release of the First McLaren Report, he had known nothing either about the alleged existence of the so-called "State-Sponsored Doping Programme" in Russia or about the "Duchess" doping cocktail allegedly invented by Dr. Rodchenkov. He further categorically affirms never having met with Dr. Rodchenkov in his car, let alone for the purpose of acquiring PEDs for the Russian biathlon team. He further denies that his driver, Mr. Oleg Alexandrovich Besklinskiy, has ever given any money to Dr. Rodchenkov. Moreover, he states that although he might have seen Ms. Rodionova and Dr. Rodchenkov during various meetings of the Expert Council at the Ministry of Sport of the Russian Federation or of the Russian Olympic Committee Executive Board, he never communicated with them and never discussed any matters relating to the Russian Biathlon Union. He affirms that he has never kept in touch with Dr. Rodchenkov and therefore has never sent anything to him, let alone the Laboratory Documentation Packages of Ms. Ekaterina Iourieva and Ms. Irina Starykh, who secretly made their own decision to take PEDs, were caught and justly punished.
- **Mr. Oleg Alexandrovich Besklinsky**, who worked as a driver for the Russian Biathlon Union from September 2009 to September 2014. He affirms that in the context of his work duties, he drove Mr. Kushchenko from home to the office of the Russian Biathlon Union and drove him back home after work. In addition to that, he would make various trips with Mr. Kushchenko in the course of the business day. He states that he has never seen or met Dr. Rodchenkov and that the latter has never been in Mr. Besklinsky's car. He affirms that he did not hand over any envelopes to Dr. Rodchenkov and that Mr. Kushchenko never gave him the directions mentioned by Dr. Rodchenkov in his affidavits.
- **Mr. Evgeny Kudryavtsev**, who headed, from late 2012 until November 2015, a section at the Moscow Laboratory tasked with logging and recording bio samples. In this capacity he was primarily responsible for logging, aliquoting, transferring of

aliquotas, measuring of urine pH, and storing bio samples and overall, for ensuring that the section functioned properly. During the Olympic Games in Sochi he was also responsible for receiving, aliquoting, transferring of aliquotas, measuring of urine pH, and storing bio samples at the Sochi Laboratory. He stated that the scheme that allegedly existed in Sochi is nothing but a figment of Dr. Rodchenkov's imagination and has no basis in reality. He affirms that he was never involved in any such scheme, was not aware of any such scheme and firmly believes that no such scheme ever took place. In his witness statement, Mr. Kudryavtsev gives detailed explanations to why he believes that Dr. Rodchenkov is not saying the truth. In particular, the data relating to the chain of custody documents would show that, contrary to Dr. Rodchenkov's assertions, first, many of the samples were processed during the day shift and, second, that many of the samples were processed within a period of less than 1,5 hours from the time they arrived to the laboratory till the time when they were sent to the analysis. This would confirm that no night complex swapping scheme that required quite substantial amount of time was possible even theoretically. According to Mr. Kudryavtsev's statement, Thierry Boghossian from WADA was monitoring the work of the department quite closely, in particular the work in aliquoting room No. 125, and was present even at night shifts or would stay, like on 14, 20, 21 and 22 February 2014, until late in the night. Further, he affirms that he has never removed any B samples from the storage room, that he has never hidden any B samples in his lab coat, that the necessary equipment to cleanse bottles used for bio samples as needed in Dr. Rodchenkov's scenario was not available in room No. 124 but only on the second floor of the Sochi Laboratory. Finally, he states that he does not recognize the person called Blokhin and cannot remember meeting this person or even ever seeing this person in the Sochi Laboratory.

- **Mr. Yuri Borisovich Chizhov**, who has been the Head of the Administrative Support Section at the Moscow Laboratory since 2005 and was responsible for ensuring the proper organization and provision of administrative support services at the Sochi Laboratory during the Sochi Games. According to Mr. Chizhov, representatives of WADA thoroughly examined every room in the building. As a result of those inspections, minor critical remarks of a technical nature were made about the laboratory. Those remarks were immediately addressed, and the international inspectors were subsequently very satisfied with the state of the building, including the control and security system. There was a robust physical access control system deployed at the Sochi Laboratory during the Sochi Games, in particular most employees only had access to the areas in the laboratory where they actually worked, WADA staff had access to all areas of the laboratory, a video surveillance system was installed throughout the building and a perimeter fence surrounded the laboratory and security cameras constantly monitored the entrance. Mr. Chizhov stated that Dr. Rodchenkov's allegations concerning the existence of a sample-swapping scheme at the Sochi Laboratory were entirely invented and he denied ever committing any of the acts alleged by Dr. Rodchenkov. He affirmed that he never swapped samples or prepared urine for such a purpose and that he never witnessed anyone else undertaking such actions. He explained that the scheme alleged by Dr. Rodchenkov could, mainly for reasons linked to the above described security system, not have been implemented. Moreover, the rooms where, according to Dr. Rodchenkov, the sample-swapping occurred were located on the ground floor of the laboratory. The Aliquoting Room was used for aliquoting samples, while the Operations Room was used to store empty

crates and leftover consumables. The crates were so densely packed that it would have been impossible to carry out any manipulation of samples in the room. Apart from empty crates there was no other equipment in the Operations Room. There was no electricity, running water or drain in the room. Nor was there a bathroom in or close to the room. Mr. Chizhov states that it would therefore have been impossible to empty and wash urine bottles in that room. He further refutes that a hole was drilled between the two rooms and affirms that the allegation that he had personally drilled such a hole or instructed someone to do so was simply absurd and entirely untrue. Finally, he denied playing any role in the manipulation or swapping of urine samples and insisted that the allegations concerning his involvement were baseless.

- **Mr. Grigory Ivanovich Krotov**, who worked as Head of the Peptide Doping and Blood Test Section at the Moscow Laboratory between 2008 and July 2016 stated that the Peptide Doping and Blood Test Section at the Sochi Laboratory was located on the second floor of the laboratory and that samples were delivered to that section by a special elevator from the ground floor where they were received and aliquoted. During a day, samples were delivered in two periods from 13h00 to 18h00 and from 22h00 to 05h00. At around 03h00 each day, the section started analysing samples received at night. According to Mr. Krotov, WADA staff had free access to any room of the laboratory and frequently came to the laboratory with inspections including at night time. He affirms that when working at the laboratory, including at night time, he never noticed anything strange or suspicious and never saw any people he did not know. He specifically denied having ever seen Mr. Blokhin in the laboratory building. Mr. Krotov further denied that the sample-swapping scheme described by Dr. Rodchenkov ever existed and added that such a scheme would have been impossible to implement, not least because the Sochi Laboratory was subject to exceedingly strict control with a security system in place. Video cameras were installed throughout the premises and people were constantly present, meaning that any suspicious daily activities would have been noticed. Finally, he stated that he never saw Dr. Rodchenkov at the Sochi Laboratory at nighttime.
- **Mr. Maxim Verevkin**, who started working at RUSADA in 2009 as a DCO and had become, by 2014, the Chief Specialist of the Department of Doping Samples Collection, stated that, as part of the preparation for the Sochi Games, he was in charge of training of about 400 DCOs. At the Sochi Games, he was the manager of a doping control station. Mr. Verevkin affirms that all procedures were followed properly and in accordance with applicable rules and standards. In particular, (i) upon arrival at the doping control station, the athlete presented a passport to the DCO and completed the DCFs, (ii) the athlete was then accompanied by a DCO to the toilet, where he provided urine into a cup under the supervision of the DCO, (iii) the athlete then poured the urine from the cup into two bottles for the A and B samples before closing the lids of those bottles; (iv) the athlete then provided the closed bottles to the DCO who ensured the bottles were closed to the maximum extent possible; (v) the athlete would then turn the two sample bottles upside down, to ensure they were properly sealed, (vi) finally, the two bottles were placed and sealed in separate plastic bags. Mr. Verevkin stated that considering that the sample collection process involved the participation of the individual athlete, any representatives that accompanied him, a DCO and sometimes observers from WADA or International Federations, he believes that it was, in these circumstances, it was simply unfeasible that anyone could have attempted to

manipulate the sample bottles by deliberately closing the caps to less than the fullest extent possible. Mr. Verevkin further affirmed that he never saw anything like this occur at his doping control station during the Sochi Games. In addition, Mr. Verevkin pointed out that the use of phones was not allowed at doping control stations and photo- and vide-recording was prohibited. According to Mr. Verevkin, this rule was enforced strictly due to confidentiality concerns. Finally, he stated that there was no single instance of suspicious activity at his station, that there were no violations reported and that he received very high reviews by international observers as to how the DCOs' work at his station was organized and implemented.

- **Mr. Andrey Knyazev**, who started working at RUSADA in 2008 as a DCO, was, during the Sochi games, the manager of a doping control station. As part of that role, he was responsible for personally supervising the DCOs who worked at his station and make sure they followed properly all procedures in accordance with applicable international rules and standards. He stated that the procedure of closing urine samples was carried out properly at all times at his station. He affirmed that he never received any complaints from anyone, including athletes, their representatives who accompanied the athletes, and international observers who visited his station several times to ensure the station operates in accordance with the WADA regulations. Mr. Knyazev stated any phone and video-recording was strictly prohibited at the stations because of privacy considerations. Phones and hand-held devices were not allowed to be used by anyone, and, according to Mr. Knyazev he or the DCOs would always ask anyone who took a mobile phone or smartphone out to put them away. Finally, Mr. Knyazev affirmed that he never saw or evidenced any suspicious or illegal behavior at the station he supervised. All of the DCOs at his station complied with their respective duties and fulfilled their job properly, including checking that the bottles were properly closed to the fullest extent possible.
133. The Athlete filed a witness statement dated 29 August 2019 in support of her appeal. In that witness statement, the Athlete summarised her career as a professional biathlete, which included winning two silver medals at the Sochi Games, one in the 7,5 km sprint event and one in the 4x6km women's relay event. She affirmed that the IOC's and Mr Rodchenkov's accusations against her are far-fetched, unsubstantiated and run contrary to the factual background and defy common sense and logic.
 134. The Athlete stated that she has never taken substances prohibited by WADA, or their mixes, and has never used methods prohibited by WADA. She affirms that, prior to the release of the First McLaren Report and the respective coverage in the press, she knew nothing about the alleged existence of the so-called "State-Sponsored Doping Programme" in Russia, or about the existence of the "Duchess" Cocktail allegedly invented by Dr. Rodchenkov, or about the existence of some "Duchess" list or "Medals by day" list. She stated, moreover, that before that, she had never heard of or seen Dr. Rodchenkov. The Athlete stated that during the 10 years of her career, she lived, trained and competed in many countries' others than Russia, and that she spent around 60% of her time abroad.
 135. The Athlete affirms that during the 10 years of participating in the doping test pool she underwent many doping-control tests both in Russia and abroad under the control of, inter alia, WADA, IBU and IOC, that all control tests were negative and that she has never been informed of any positive doping results. She further states that all anti-doping tests,

including the ones done at the Sochi Games, were conducted in strict compliance with the anti-doping rules. In particular, she affirms that she would “*close the A and B bottles until a click (up to the tightest possible point) and give the bottles to the DCO for him/her to make sure that they were effectively closed*”, then “*pack the bottles into small bags, which would then be placed into a plastic container and wrapped around with blue ribbon*”.

136. The Athlete further stated that she has “*never taken any photographs of the DCFs with my cellular phone*” and has “*never texted any photographs of the DCFs, let alone to Irina Rodionova, who was not a close acquaintance*” of hers, and whose phone number she did not know. Moreover, she affirmed that when she accompanied by the team representatives during a doping control test, “*they did not take photographs of the DCFs either and did not send them anywhere*”.
137. The Athlete affirmed that RUSADA has always treated her with the requisite severity and did not allow her any exceptions whatsoever from the rules. For instance, on 22 October 2014, she was unavailable for a doping test at the time and at the address indicated in the ADAMS system and the DCO from RUSADA sent the unsuccessful attempt form to the IBU. In accordance, she received a missed test notice and then the IBU recorded the missed test.
138. The Athlete denied having ever given any urine samples outside standard doping control procedures, save for an insignificant volume of urine given in the course of regular medical check-ups conducted twice a year. She states that all these medical check-ups were usually conducted at Burnazyan FMBA and that on 24 October 2012, together with the entire women’s national biathlon team, she underwent a medical check-up at Burnazyan FMBA, in the context of which, inter alia, her urine was tested, as confirmed by the testing results.
139. Moreover, the Athlete denied ever having taken EPO or having had high levels of hemoglobin. The allegation of Dr. Rodchenkov in relation to high levels of hemoglobin found in blood samples provided between 2 and 15 April 2013 would be absurd and libelous in respect of her. She acknowledged that she did give a blood sample on 6 April 2013, but that, as shown in the information provided by WADA, the anti-doping test was negative.
140. She further denied having participated in the Izhevsk Russian Championship and Cup between 17 and 22 December 2013 as she was in Italy and Slovenia at that time and observed that, contrary to Dr. Rodchenkov’s statement, she did not take part in the 15km individual race on 14 February 2014 at the Sochi Games.
141. The Athlete affirmed that all of her doping control tests have always been negative, that she has never violated any anti-doping rules, that she never had any problems with the ABP, that she has always stood for clean sport, that during her sport career she carefully controlled her actions, controlled her food and drink, and also controlled the medicines which she took. She stated that the unfair accusations of the IOC, based on the false statements of Dr. Rodchenkov, bring discredit to her whole sport career notwithstanding the fact that she is a clean athlete and has always been for a clean sport.
142. The Athlete gave oral evidence in person at the hearing. During her oral testimony, the Athlete confirmed and, in some respects, expanded upon the contents of her witness statement. Among other matters, the Athlete explained that she:

- has never used prohibited substances during her career, has zero tolerance for doping and has been very affected by the allegations raised by the IOC against her;
- has never met Dr. Rodchenkov;
- has never provided any urine samples outside of the regular anti-doping tests or the bi-annual medical check-ups at the Burnazyan Hospital in order to be allowed to compete, for example on 24 October 2012;
- always closed the sample bottles until the caps would not move and made sure the bottle was fully closed. Moreover, the DCO would then check that the bottle was fully closed.

143. In response to a question from the Panel, the Athlete testified, inter alia, that the blood and urine sample provided on 31 January 2014 was provided under normal circumstances on the day after her arrival in Sochi. She trained that day, but not with the group of Mr. Pichler which she had left in 2014 because of the heavy training load prescribed by the latter.
144. The Respondent, for its part, relied on affidavits of Prof. McLaren and Dr. Rodchenkov.
145. In his affidavit, dated 11 November 2019, prepared for the cases CAS 2017/A/5434, CAS 2017/A/5435 and CAS 2017/A/5444, Prof. McLaren, as a preliminary matter, confirmed the findings set out in his Reports and observed that he was aware that these Reports would have grave consequences for individual athletes and teams. His affidavit was a supplement to the one he had prepared for the IOC DC Hearings. Prof. McLaren states that after the release of his Second Report, he and his team continued to go through the database in order to review, reassess and recover additional information. The spend time reviewing the LIMS data, the London Games retesting and Dr. Rodchenkov's diaries. According to Prof. McLaren, this work has reinforced the conclusions set forth in his Reports and expanded his understanding of what went on in Russia between 2011 and 2015. He considers, first, that his findings on the existence of a generalised doping scheme in Russia have been confirmed by numerous deliberative bodies in their decisions, inter alia in the Other Proceedings and in CAS 2018/A/5752 Ekatarina Glazyrina v. IBU. In the latter case, a Russian biathlete was sanctioned based on the DPM emails confirmed by the LIMS data. Secondly, contrary to what the Athlete argues, the evidence he gathered would show that the doping manipulations were not the consequence of the actions of a small corrupt group led by Dr. Rodchenkov but that the scheme was institutionally organized and run with the involvement of personnel of the Ministry of Sports. This would clearly be seen in the EDP documentation. The FSB had a twofold role in the scheme and the presence of Mr. Blokhin in the Sochi Laboratory would be established by pictures taken by Dr. Rodchenkov, showing Mr. Blokhin and Mr. Chizhov waiting for the swapping of samples to commence. Further, there would be evidence, that the CSP and Ms. Rodionova were involved in the scheme, mainly in relation of the collection of "clean" urine and the maintaining of the clean urine bank. Prof. McLaren states that his findings do not exclusively rely on the oral testimony of Dr. Rodchenkov but are based on numerous other elements, such as the EDP documentation and the LIMS data and are confirmed, inter alia, by the London retests, the physiologically impossible sodium levels found in Sochi samples along with inconsistent DNA profiles and an expert report on the existence of the mousehole at the Sochi Laboratory. Prof. McLaren further developed the reasons that lead him to believe that Dr. Rodchenkov is a credible and truthful witness in relation to the information he provided in

the IP investigation. He adds that forensic evidence shows not only that the EDP documentation is authentic but also that it was possible to open the Berlinger bottles for the purpose of swapping. DNA evidence would incontrovertibly show that sample bottles were opened and tampered with. Prof. McLaren finally states that the new evidence he has considered since December 2016, confirms his earlier findings.

146. Dr. Rodchenkov prepared several affidavits for the purpose of the Other Proceedings as well as the present proceedings. Following a request from the Appellant's counsel, the Respondent provided confirmation about the authenticity of Dr. Rodchenkov's signature on the submitted affidavits. The relevant affidavits are dated:
- 5 November 2017 (Ms. Vilukhina),
 - 5 November 2017 (Ms. Romanova),
 - 18 November 2017 (Ms. Zaytseva),
 - 15 January 2018,
 - 12 November 2019,
 - 22 February 2020.
147. In his affidavit dated 15 January 2018, Dr. Rodchenkov gave explanations relating to the manipulation of the doping control system in Russia before, during and after the Sochi Games which he refers to as the "Sochi Plan", and stated that the Sochi Plan had three objectives, namely: (i) using PEDs with a limited wash-out period. Meaning that they would be undetectable in urine after a very short period of time; (ii) the ability, during the Sochi Games, to swap the urine of doped athletes for urine taken from that athlete before the athlete began taking PEDs, and (iii) the ability to hinder both (a) the testing of Russian Olympic athletes scheduled by the IOC or WADA and (b) the delivery of samples abroad.
148. With regard to the first objective, Dr. Rodchenkov described how the PED used, the so-called "Duchess Cocktail", was developed and tested. According to Dr. Rodchenkov, the "*Ministry of Sports, and in particular Deputy Minister Nagornykh, decided which athletes would be 'protected' from doping-control threats or problems*". Dr. Rodchenkov stated that these athletes' names were placed on an excel spreadsheet, later referred to as the "Duchess List", by Mr. Velikodny based on information from Ms. Rodionova. He affirmed that Mr. Nagornykh had informed him that Mr. Mutko, the Minister of Sport, had reviewed and approved this list. He stated that swapping of urine for athletes on the Duchess List was "automatic" and those athletes benefitted from "complete blanket protection".
149. Concerning the second objective, Dr. Rodchenkov stated, inter alia, that in approximately March 2013, Ms. Rodionova, coaches, and team doctors directed approximately 75 Russian winter athletes to begin collecting urine, which would be used to swap for dirty urine if necessary, during the Sochi Games. Notwithstanding the short wash-out period of the Duchess Cocktail, there was a risk of positive anti-doping tests at the Sochi Games and in order to address that risk it was necessary establish a "bank" of clean urine, which could be used during the Sochi Games for purpose of urine swapping. To establish such "bank", according to Dr. Rodchenkov, the athletes were told to collect approximately five to seven

bottles or cans of clean urine prior to starting their use of the Duchess Cocktail and were also instructed to freeze their urine before sending the bottles to Ms. Rodionova in Moscow in plastic bags. Dr. Rodchenkov stated that in the period between March 2013 and the Sochi Games, Ms. Rodionova or Mr. Velikodny transported this supply of clean urine to Dr. Rodchenkov in the Moscow Laboratory. He stated that these samples, of approximately hundred athletes, were tested to ensure that they were clean; and that his staff catalogued all athlete samples, analysed them for clean grade, and passed them to Ms. Rodionova to store in the CSP until they were transported to the FSB command centre which was situated approximately 100 metres from the Sochi Laboratory. With regard to the opening of the supposedly tamper-proof BEREG-KIT bottles, Dr. Rodchenkov described a team of individuals, whom he describes as the “Magicians” who successfully developed a method for opening sealed bottles. Dr. Rodchenkov stated that the supervisor of this team, Mr. Blokhin, informed him in February 2013, that they had achieved success in this regard, information that he himself then reported to Mr. Nagornykh, who in turn reported it to Mr. Mutko. Dr. Rodchenkov acknowledges however, that he “never observed first hand any bottles being opened or de-capped” and that, accordingly, he did not know the “precise method” used by the Magicians to open the bottles, only having seen a table with instruments that resembled a dentist’s tools.

150. Dr. Rodchenkov went on to give a thorough description of the four stages of the alleged swapping process.
151. According to Dr. Rodchenkov, he carried out night-time urine swapping during the entire Sochi Games, although not every night.
152. With regard to the third objective of the Sochi Plan, Dr. Rodchenkov stated that to address the problems associated with Russian athletes’ samples being sent abroad, Mr. Nagornykh worked with the FSB to create a system to intercept the samples at the border. Dr. Rodchenkov stated, however, that he was not involved in the details of this part of the scheme. He also referred to a decision that was made before the Sochi Games, that DCOs the Norwegian anti-doping authorities were supposed to conduct pre-competition testing for Russian athletes and that in order to minimize the possibility of being caught “dirty”, it was decided that Russian skiers should try to travel to Switzerland, where RUSADA would collect the urine samples, deliver them to the Sochi Laboratory, and hide the results.
153. In this affidavit, Dr. Rodchenkov further addressed the financing and execution of the Sochi Plan, making reference to the implication of, inter alia, Ms. Rodionova, Mr. Nagornykh and Mr. Mutko, gave an overview of the outcome of the Sochi Plan and described the reactions to the airing, on German television, of a documentary on the Russian state-sponsored doping.
154. Concerning the Athlete, Dr. Rodchenkov stated, in his affidavit dated 5 November 2017, she was protected by the state-sponsored doping program and was, as such, included on the Duchess List used to indicate which athletes were prepared and protected during the Sochi Games. According to Dr. Rodchenkov, the Athlete was, as part of the list of protected athletes, instructed to collect and freeze clean urine to use for the swapping protocol during the Sochi Games. Ms. Rodionova was, according to the protocol, supposed to deliver Ms. Vilukhina’s urine to the Moscow Laboratory before the Sochi Games were Dr. Rodchenkov and his team would conduct analysis to confirm that the urine was “clean”. The clean urine

samples would then be returned to Ms. Rodionova to store at the CSP until end of January 2014, when they were transported to the FSB command center in Sochi. Dr. Rodchenkov, referring to his notes in his diary, stated that the Russian female biathlon team performed poorly in the 15km individual race considering “*their use of the Duchess Cocktail*”. For the rest, Dr. Rodchenkov enumerated the results achieved by the Athlete.

155. In his affidavit dated 12 November 2019, Dr. Rodchenkov stated that, inter alia, that:

- Ms. Rodionova: was an integral part of the state-sponsored doping program and, as medical doctor and coordinator of athlete doping preparations, facilitated distribution of performance enhancing substances before and during the Sochi Games; managed the process of coordinating the collection of athletes’ “clean” urine samples, delivering them for analysis, coordinating storage of clean urine samples inside of CSP (“Clean Urine Bank”), and distributing Duchess Cocktail; was assisted in transporting the Clean Urine Bank for use at the Sochi Games by the FSB; and himself met for the first time in 2007 when she came to the Moscow Laboratory to discuss several athletes and that, after that, he met her countless times to discuss, in particular, the doping program, doping protocols for individual athletes, and to coordinate urine swapping before, during, and after the Sochi Games ; and himself met, in Moscow, generally in Mr. Nagornykh’s office in the Ministry of Sport or in Dr. Rodchenkov’s office at the Moscow Laboratory; had, before the Sochi Games, provided doping substances to Russian biathletes and that, to the best of his knowledge, she delivered the Duchess Cocktail to Mr. Pichler’s trainee, Ekaterina Glazyrina, who failed doping control at competitions in Izhevsk, but her results were misreported to ADAMS as negative; flew to Oberhof (Germany) to prevent Ms. Glazyrina, who did not know her urine tested positive, from competing in the IBU World Cup races; was an integral part of the doping program, its planning, and in overseeing doping control, including by sending text messages and pictures of DCFs belonging to protected athletes, and providing the daily coordination required for urine swapping and the protection of athletes; arrived in Sochi on 27 January 2014 to organize the Clean Urine Bank storage and had multiple phones, including a phone capable of taking pictures and with internet connection; and himself had met even before the Sochi Games to discuss specific athletes, for example Ms. Zaytseva and the blood parameters in her ABP.
- Mr. Alexey Kisuhkin: was, to the best of Dr. Rodchenkov’s knowledge, employed by the CSP and was considered as one of Ms. Rodionova’s assistant; delivered ampules and prohormones to the Moscow Laboratory in 2013, prepared the Duchess cocktail; delivered the Duchess cocktail to the Moscow Laboratory for a wash-out and purity study.
- There were instances when the timing of urine samples arriving at the Sochi Laboratory deviated from the schedule he described in other affidavits. However, regardless of when the urine samples were delivered to the Sochi Laboratory, urine samples in BEREG-KIT A and B bottles were always swapped during the night as described in those other affidavits. This was also the case for the 11 urine samples provided by Ms. Zaytseva, Ms. Romanova, and Ms. Vilukhina out of which 2 samples were delivered during the daytime. For both samples, Sample 2889698 belonging to Ms. Romanova and Sample 28918222 belonging to Ms. Vilukhina, the

timing documented in the LIMS for each part of the analysis process would be consistent with night time swapping and the analysis process.

- The claim of the female biathletes that they provided urine on October 24, 2012 to a hospital called Burnazyan FMBA Centre for medical testing and that is where the 2012 Inventory List, which was not the Clean Urine Bank created in 2013, is from, has to be wrong because the Moscow Laboratory and the Burnazyan FMBA Centre were two completely different entities that had no cooperation or connection. According to Dr. Rodchenkov these samples were brought to the Moscow Laboratory and analyzed on that date. Even if the samples had been taken in Burnazyan, this would not matter for the purposes of what is documented in the 2012 Inventory at the Moscow Laboratory. At some point, the samples were brought to the Moscow Laboratory and analyzed as Ms. Sukhanova could only create an inventory of samples that were physically present in the Moscow Laboratory. The Moscow Laboratory would not have received any information from Burnazyan FMBA Centre regarding the names or urine sample information.

156. In his affidavit dated 22 February 2020, Dr. Rodchenkov reiterates, in response to Ms. Rodionova's witness statement dated 27 January 2020, inter alia: that Ms. Rodionova was an integral part of the doping program and was, alongside Dr. Rodchenkov and Mr. Nagornykh, was a main actor in said program; that prior to 2011, he and Ms. Rodionova had met on numerous occasions to discuss the doping protocols and positive cases of certain swimmers, including Stanislava Komarova, Anastasia Ivanenko, and Anatoly Polyakov for example on 9 and 11 April 2007; that it follows from his diaries, that, for example on 6 December 2010, he met with Ms. Rodionova and Mr. Nagornykh in the latter's office to discuss the necessity of a wide-scale Doping Program to guarantee success at the Sochi Games; that Ms. Rodionova went to Ruhpolding (Germany) between 26 and 29 December 2013, where Ms. Glazyrina was training to prevent the athletes from competing in the IBU World Cup races; that the claim that the urine provided by the Athlete on 24 October 2012, to Burnazyan FMBA Centre for medical testing, which is where the 2012 Inventory and sample list is from, is baseless as the Moscow Laboratory and the Burnazyan FMBA Centre were two completely different entities and had no cooperation or connection and as the Athlete offer no explanation as to why urine samples collected at the Burnazyan FMBA Centre for allegedly medical purposes would have been brought to the Moscow Laboratory; that Mr. Kudryavtsev was an important actor who was integral to the urine swapping process of the Doping Program within the Sochi and Moscow Laboratory and that, as such, he had access to the official urine samples and to pretested "clean samples", thus providing him the opportunity to manipulate and swap urine aliquots during the daytime, as well as assist in urine swapping in Beregkit bottles during the night time.

B. Forensic Evidence

157. The Appellant contests the forensic evidence relied upon by the IOC in regard to the bottle opening, the only forensic evidence relevant in the present case. The Appellant relies on the expert evidence from Mr. Geoffrey Arnold, a senior consultant forensic scientist. In the Other Proceedings, Mr. Arnold had provided a detailed expert report dated 7 January 2018. In that report, Mr. Arnold identified various criticisms of the methodology employed by the expert appointed by the IOC, Prof. Champod, and the conclusion reached by the latter and his team. In the present proceeding, Mr. Arnold provided a report issued on 27 January

2020, in which he reviewed, analysed and commented on the specific reports by Prof. Champod in relation to the examination of the marks inside the plastic cap of urine bottles of Ms. Vilukhina, Ms. Romanova and Ms. Zaytseva. For the purpose of said report, Mr. Arnold referred to and commented on the two McLaren Reports, Prof. Champod's reports dated 27 July 2017, 26 September 2017, 30 November 2017, 16 July 2018, letters dated 1 December 2017 and 19 December 2017 from Prof. Champod to Me Morand and the report by the Swedish National Forensic Centre dated 1 December 2017.

158. In the summary of his report, Mr. Arnold states that the recorded evidence indicates that the methodology devised by the Champod Team does not answer the question posed and that there is little evidence of consideration and no testing of alternative explanations (hypotheses). According to Mr. Arnold, the degree of scientific support recorded in the reports relates only to the one stated proposition over the other and gives no scientific conclusion to the actual origins of the questioned marks. Mr. Arnold affirms that the working hypothesis has failed as the recorded evidence indicates that a number of items can produce similar mark compatibility and that the alternative hypotheses, i.e. the possibility that the questioned marks originate from an innocent source, remains valid.
159. Mr. Arnold further states that the recorded evidence indicates, inter alia, that: the origins of the questioned toolmarks or the time of their production have not been scientifically established; a principle element of the working hypothesis is presumption; no category for inconclusive marks has been created; there is no allowance for an error rate – like for example scratches compatible with the marks that he was able to produce by simple manipulation of the bottle components with his fingers; the number of questioned marks has increased dramatically within the chain of evidence; a degree of unvalidated evidence has been accepted as fact in order to facilitate expected results; the alternative hypotheses (the marks could be the result of sabotage, travel and handling, freezing and thawing, real life use by individual athletes, contamination, manufacturing subclass characteristics) remain valid; the reported results and conclusions are unsound; the database used was limited in size and quality; the questioned marks have been examined through the distortion of an intermediate layer; there was no direct comparison of the questioned marks and test marks using a comparison microscope; only one possible cause for the questioned marks was considered and tested, raising the question of bias; the adopted strategy was that of testing to prove the hypothesis rather than testing to falsify, contradicting the scientific method and inducing bias; the working hypothesis was not changed after it failed; there is no support for the assumption that the sample bottles were not closed to regular instructions; the degree of concordance accepted as evidential support is so low that numerous items can attain a similar degree of concordance to the tested; it is possible for the questioned marks to be related to normal use of the sample bottles; the interpretation and conclusions stated merely reflect the probability between two allied propositions raised and give no scientific support for the origin of the questioned marks; the allegations of Dr. Rodchenkov have not been scientifically validated; and that the Champod team was not able to open fully closed sample bottles while leaving marks similar to the questioned marks.
160. According to Mr. Arnold's report, the evident contradiction between the propositions and the adopted test parameters mean that testing and the associated conclusions are unsound.
161. At the hearing, Mr. Arnold explained and confirmed his criticism as part of a joint expert evidence session with Prof. Champod. In particular, he reiterated his criticism that Prof.

Champod did not use falsifiers to test his hypothesis and did not agree with Prof. Champod's statement that they considered all other variables that could have caused the T-marks, for example transport, handling, contamination with particles and/or sabotage. He further testified that the metal ring of the cap can leave T-marks inside of the cap and even on the translucent plastic ring when the athlete has to handle the cap. He went on to state that Prof. Champod and his team adjusted their test parameters when reducing, to between 6 and 11 clicks, the closure of the bottles they opened which is not good scientific practise. Regarding the system developed by Prof. Champod and his team to assess the initial closure of the bottles, he stated that such test has not been scientifically reviewed and did only produce 24% of valid results. Thus, it could not be a valid scientific method. He explained that from a scientific standpoint Prof. Champod should have created a category for marks with unknown/uncertain origin. Moreover, according to Mr. Arnold, the only way to properly examine a mark is by directly accessing the surface of the mark and not by observing the mark from the outside of the cap. He finally stated that whenever you place a hard object against a soft object, you'll leave a mark and that, thus, it's not possible to open a sample bottle with a tool without leaving a mark. The question whether you will find this mark would however be a different question.

162. In response to questions from the Panel, Mr. Arnold stated, inter alia, that he could never examine the bottles himself and can therefore not make any statement in regard to the bottle(s) of the Athlete on which Prof. Champod declared to have found T-marks. He further stated that a possible correlation between that date on which the samples showing T-marks were provided and a good result in the competition that preceded the anti-doping test sample would be an important element, as a good result in a competition could lead to an athlete being full of adrenaline when providing the urine sample and thus playing more with the plastic cap of the sample bottle. He explained that freezing and unfreezing could lead to scratch marks as the ice would expand and thus move the metallic parts contained in the plastic cap as even after the 15th click, they would have room to move.
163. The Respondent, for its part, relies on forensic evidence contained in several reports established by Prof. Christophe Champod, professor of forensic science at the Ecole des Sciences Criminelles at the Faculty of Law, Criminal Justice and Public Administration at the University of Lausanne. The reports dated 27 July 2017 (the "Report on the Methodology developed") and 30 November 2017 (the "Summary of the Methodology and Status Report"), which had already been submitted in the Other Proceedings, have been complemented by a third report, dated 16 July 2018 (the "Complementary Report"). Concerning the Appellant's urine sample bottles, Prof. Champod established, in collaboration with the Swiss Laboratory for Doping Analyses in Lausanne, a report on the "Examination of marks inside the plastic cap of urine sample bottles", in case of the Appellant bottle B2891822, dated 12 October 2017. Finally, in a document dated 23 February 2020, Prof. Champod responded to the methodological objections raised by Mr. Arnold.
164. Concerning the Appellant, Prof. Champod noted in his report dated 12 October 2017, that on the inside of the plastic cap of bottle B2891822, multiple so-called T-marks have been observed as well as both U- and F-marks. The images (respectively with and without the annotations associated with the marks) were shown in figures annexed to said report. When feasible and relevant, the marks have been recorded by macroscopy. The macrophotographs were also annexed to the report. According to that report, the multiple T-marks have been

observed at locations around the cap that are in line with the positions that would be adequate to facilitate the opening of the bottle by lifting the metal ring. The faces showing T-marks were far on each side of the bottle. Further, the report reads as follows: “[w]e have never observed empirically such marks on bottles that have been regularly closed. But, given the limited number of bottles (22 in total) we examined during the development of this methodology, we do not claim that it is impossible to make such observations under the proposition of normal use of the bottle. On the other hand, these results are in line with what has been empirically observed when we tampered with test bottles”. According to the report, the nature of the marks, their shape and compatibility with the working of tools at multiple locations allow to conclude that these results are 1000 times more probable if the bottle has been initially closed, then forcibly opened and resealed with the same cap rather than if has been used and closed following regular instructions without any wrong doing. Using the verbal equivalents, this weight would correspond to the category 1000 to 10000. The observations would thus provide very strong support for the proposition that the bottle in question has been tampered with as alleged compared to the proposition of normal use. The strength of the observations is related to the number of marks observed on normally used bottles and an assessment of the mere possibility to create them through normal usage.

165. In his complementary report, dated 16 July 2018, Prof. Champod addressed the several issues that were raised by the panels in the Other Proceedings regarding the forensic results associated with scratches and marks observed on the inner side of the bottles’ caps examined by his forensic team.
166. In summary, the supplementary analysis done by his team led Prof. Champod to the following conclusions:
 - there is no credible evidence to suggest that the T-marks documented in the questioned bottles could be due to transportation, as suggested by Mr. Arnold. Also, Mr. Arnold’s allegation that a mere manipulation of the plastic cap by the athlete could lead to marks that could be confused with T-marks is not supported by empirical evidence as shown by the U-marks observed on the single-blinds and double-blinds samples. Indeed, none of these quality control samples showed marks that could be confused with the marks we labelled as T-marks. The same argument holds for the 178 questioned bottles that were determined to have no T-marks. No observation was made on these samples that would suggest the need to revisit the two hypotheses retained in Prof. Champod’s investigation (i.e. tampering or regular usage).
 - provided reasonable efforts and knowledge of the closing system, bottles initially closed at 15+ clicks, containing liquid urine, can be re-opened using tools. To succeed in that endeavor, one must use two tools working roughly at 180 degrees. The tools leave recognizable marks at defined locations on the inside of the plastic cap (typically on two distinct locations, on the plastic translucent ring, in the middle of the face or in the plastic groove). These marks are expected regardless of the metallic tools used and can be distinguished from the marks produced during the manufacturing process or through usage. Videos attached to the report illustrated how bottles closed at 15+ clicks containing liquid are opened without any leak in a normal position - meaning not upside down.

- the sample size used to study the U-marks under controlled conditions was not 11 bottles, as suggested by the CAS, but 105 bottles for a total 1260 plastic cap faces. This sample is large enough to gain a full understanding of the marks left on the bottles following their regular closure. The assignment of labels to marks (F, U and T) was made in a conservative way. An “inconclusive” category was judged to be redundant as any mark of disputed status would be assigned by default to a U-mark, indicative of the normal usage of the bottle.
- the finding of multiple T-marks on a bottle do not demonstrate “conclusively” that the bottles were re-opened but “very strong support” meaning that the findings tilt the scale in the direction of tampering: if each pan of the scale represents one of the propositions under examination, the findings weigh heavily on the side of the proposition of tampering. For example, if both pans were initially placed at the same level, assuming then that both propositions were equally likely before carrying out the examination of the potential marks, the findings would allow (with their weight of more than a thousand) to conclude that the bottle was very likely tampered with, with a percentage probability above 99.9%. Such a weight would not be sufficient to reach certainty (100%) but represents a significant shift in that direction.
- that out of the 232 controlled bottles, 36 showed multiple T-marks, 18 showed isolated T-marks and 178 showed no T-marks. The first bottles where a conclusion of multiple T-marks was reached were delivered on 6 February 2014. Then bottles associated with a conclusion of multiple T-marks or isolated T-mark(s) are distributed over the entire timeframe of the delivery period until 24 February 2014.
- that the examination of the scratch marks on the bottle B2891822, associated with the Athlete, gives very strong support (>1000 times) for tampering rather than normal closing.
- on one bottle from the Sochi Games belonging to another mandating authority than the IOC and not associated with the Appellant, there were residues on the inside of the plastic cap that could only be explained by a scenario in which (i) the bottle was closed routinely to 15 clicks with a metal ring showing a large tooth in that position, (ii) the large tooth left some residue on the inside of the cap as observed, (iii) the bottle was then opened, (iv) the metal ring was removed from its holding grooves, (v) the metal ring (or a substitute) was placed again in the cap but in a different position with regards to its teeth, and (vi) the bottle was reclosed to 15+ clicks with the metal ring showing a small tooth in that position.

167. In his response, dated 23 February 2020, to the methodological objections raised by Mr. Arnold, Prof. Champod gave further explanations regarding certain elements of the developed methodology and clarified his position. In particular, he:

- pointed out that he had put in place, prior to any examination of the questioned bottles, a systematic examination protocol that has then been put under complete and independent peer-review mechanisms during the whole examination of the questioned bottles. To give a global representation of the scope of the knowledge acquisition and commitment to quality and peer-review, a global scheme of the entire investigation of the scratches and marks has been prepared. The scheme chronologically presents the work that has been carried out by the forensic examination team and the review team

from the methodology development to the delivery of the last complementary report. All these steps were enriched by input in the form of feedback from external reviewers and also the CAS. Prof. Champod then describes 5 different key steps of the whole process to recall that said process has been made in full transparency, all observations at any stage having been documented and released (evidenced, for example, by the list of appendices to the report dated 16 July 2018). He argues that Mr. Arnold has not addressed this process in his report, limited himself to speculations, submissions and suppositions without any form of peer-review, nor any empirical observation on known material, produced a few tool marks in isolation and not in context (on less of a handful of caps) and without taking into account their positioning in relation to the closing system of the cap and how they distribute on multiple faces, considered only a portion of the marks in isolation and that includes the considerations of the questioned bottle at hand, quoted from Prof. Champod's reports out of context in a way to suggest bias, incompetence and scientific misconduct.

- refuted the argument that his team lacked experience by pointing out that the members had been carefully selected by an audit team and received training on specific tasks. Overall, the team would have more knowledge on the marks, gathered under controlled conditions, than any other experts heard in the present case.
- refuted the argument that his team did not explore any alternative hypothesis as, from the outset, starting from the first visit at Berlinger, said team strived to assess all reasonable alternatives that could lead to the production of marks on the cap, ranging from the manufacturing process to the normal closure of the bottles. The program of single-blind and double-blind controls was put into place to detect adverse findings that may lead the team to revise its method or hypotheses. The concerns expressed by the CAS panels in the Other Proceedings regarding the possibility for alternative ways to produce marks lead to a fully documented re-investigation of the matter to make sure the team had not missed anything. As shown in the Complementary Report the alternative ways suggested by Mr. Arnold were simply not possible. According to Prof. Champod, the marks produced by Mr. Arnold were not only made outside real-life and credible settings, typically against all DCO instructions, but were made on a single face of the cap and never considering the cap as a whole (12 adjacent faces). However, a single observation of an isolated mark would be irrelevant in the context of this investigation. Contrary to the claims by Mr. Arnold, none of the marks made by him comply with the features (location, shape and distribution) that Prof. Champod's team has associated with the T-marks or U-marks. The Complementary Report would show that no contamination could have occurred. Mr. Arnold merely speculates about the increase of number of marks do to transport, as no such issue was detected on the single-blinds and double-blinds bottles. On the contrary, comparative analysis of the bottles would show that transfer from the UK expert to the Champod team did not lead to an increase of marks. Moreover, contrary to Mr. Arnold's claim, the spring of the bottle would not leave enough leeway to create marks when the bottle is fully closed as there is only very limited space in the system to move once closed.
- noted that his team did not need to identify the actual tools at the origin of the T-marks found on the bottles as no tools had actually been seized or submitted for comparison.

- observed that the assignment of labels to marks (F, U and T) was made in a conservative way. An “inconclusive” category was judged to be redundant as any mark of disputed status would be assigned by default to a U-mark, indicative of the normal usage of the bottle. The way the findings associated with questioned bottles were reported encapsulates intrinsically the error rate of the technique. When in doubt regarding the classification of a mark, the class “U-marks” was used as a conservative option. Thus, it was, according to Prof. Champod, not necessary to introduce an inconclusive category. The blind peer-review proved that the chosen classification was robust.
- Refuted Mr. Arnold’s argument that the database used by Prof. Champod’s team to make its empirical findings was too small to come to a reliable scientific conclusion. Indeed, all in all 105 bottles for a total of 1260 plastic cap faces have been analysed and not only 22 bottles as suggested by Mr. Arnold.
- Refuted the argument that there was a lack of disclosure of evidence material as all the images from controlled experiments, questioned bottles and single-blind and double-blind controls have been delivered in Prof. Champod’s reports and their appendices. In this respect, Prof. Champod pointed out that Mr. Arnold only looked at a few selected images, did not offer a full re-analysis of the data submitted by Prof. Champod and focused on a single set of personal experiments made to fit the thesis he wanted to defend.

168. Prof. Champod confirmed the content of his different reports during the hearing as part of a joint expert evidence session with Mr. Arnold. In particular, he pointed out that he and his team had visited the manufacturing sites and closely looked at the production process in order to understand what marks were left in the process as well as by normal usage (F- and U-marks). He explained that it took him and his team almost three months to design the tools and to manage to open closed bottles. He further explained that the SB and DB bottles which emanated from athletes that were beyond suspicion of doping, were used for checks and balances (quality regime) as they were randomly distributed amongst the other bottles. He clarified that after the CAS decisions in the Other Proceedings, in which the panels seemed to have reproached that he and his team had not opened bottles closed at 15+ clicks, they did complementary experiments in which they opened fully closed bottles (15+ clicks) containing liquids and held in an upright position. Not only did they manage to open the bottles under these conditions, but they would leave the same marks as under the previous opening conditions. He specified that all the examined SB and DB bottles were not all closed to the full extend but rather between 13 and 15 clicks. On the questioned bottles belonging to the Russian athletes, the counted closure was between 12 and 13 clicks. He went on to explain that the initial closure of the bottles was evaluated based on the height in which the T-marks be observed in the plastic caps, knowing that, according to his observations, the more a bottle is closed, the higher up in the cap these marks will be. He explained that the marks produced by the tools he and his team used to open closed bottles are not the same than the marks observed on the questioned bottles but they are positioned, located and the same nature than the ones observed. He went on to explain that during the second visit at the manufacture of the bottles he and his team paid particular attention to a possible presence of dirt on the plastic caps that could, as alleged Mr. Arnold, create T-marks, and could exclude such presence. He explained that they thus investigated other avenues for the different types of marks found on the bottles, even if they limited themselves

to exploring the avenues related to a normal usage of the bottles. He specified that the marks left by Mr. Arnold when playing with the metal ring inside the cap would, according to the classification used, appear as U-marks and not as T-marks. He added that the fact that the 36 bottles on which the T-marks have been found belong to a specific group of athletes should have effect on the weight attributed to the evidence by the decision-making body. Prof. Champod testified that it was possible to open a bottle without leaving T-marks. He stated that on the Athlete's sample bottle B2891822 there were distinct multiple T-marks observed, even if there was no such mark on the translucent plastic ring.

169. During his cross examination, Prof. Champod explained that the presence of a T-mark does not at such mean that a bottle has been reopened but only a likelihood. The observations of multiple T-marks would not prove that tampering occurred, but it would bring corroborative evidence to the view that such tampering took place. He testified that he and his team did their initial examinations of bottles on bottles that were directly coming out of the factory production process. He stated that the state of initial closure was only assessed for a certain number of bottles, listed in the letters he addressed to Me Morand on 1st and 19th December 2017, and that for all other such assessment could not be made. He further testified not having succeeded to open a bottle without leaving T-marks.
170. In response to questions from the Panel, Prof. Champod testified, *inter alia*, that “*none of the bottles that haven't been reopened*”, i.e. the bottles closed by Prof. Champod and his team themselves (SB and DB), “*showed any mark near the marks [they] produced during reopening or the marks that [they] have seen on the questioned bottles which have been declared multiple T-marks*”. He further testified that a bottle closed to 7 clicks would not be leaking and that when closing a bottle, you would get the feeling that the bottle is closed from the 7th or 8th click onwards. He confirmed that the three types of marks (F-, U- and T-marks) can be clearly distinguished. He testified that on the bottles he and his team opened, they left T-marks on the translucent plastic ring and that they found no F- or U-marks on said rings. He added that on the questioned bottles they found numerous bottles with multiple T-marks on the translucent plastic ring. He however stated as well, that it was possible to open a bottle without leaving a T-mark on the translucent plastic ring. He explained moreover that what had been described in some reports as fibres turned out to be tear-offs of the red plastic ring that is in the cap of the sample bottle to prevent it from closing before usage and that, according to his view, this could not leave marks on the inside of the caps. Further, Prof. Champod refuted Mr. Arnold's claim that freezing and unfreezing would be able to cause t-marks on the inside of the plastic caps, as the metal parts of bottle would not be able to move anymore once the bottle is closed.
171. Finally, Prof. Champod, without being contradicted by Mr. Arnold, stated that to examine the observed scratch marks from the inside of the cap it would have been necessary to use a device to open the bottle and that device would have impacted the cap.

VI. JURISDICTION

172. Article R47 of the Code provides, *inter alia*, as follows:

“An appeal against the decision of a federation, association or sports-related body may be filed with CAS if the statutes or regulations of the said body so provide or if the parties have concluded a specific arbitration agreement and if the Appellant has

exhausted the legal remedies available to him prior the appeal, in accordance with the statutes or regulations of that body.”

173. The IOC ADR provides in article 11.2:

“Appeals from Decisions Regarding Anti-Doping Rule Violations, Consequences, and Provisional Suspensions

[...]

11.2.1 In all cases arising from the Sochi Olympic Winter Games, the decision may be appealed exclusively to the Court of Arbitration for Sport (‘CAS’) in accordance with the provisions applicable before such court.

11.2.2 In cases under Article 11.2.1, only the following parties shall have the right to appeal to CAS: (a) the Athlete or other Person who is the subject of the decision being appealed; (b) the relevant International Federation and any other Anti-Doping Organisation under whose rules a sanction could have been imposed; and (c) WADA.”

174. The Respondent did not object to the application of Article 11.2 of the IOC ADR and the Parties expressly confirmed that the CAS had jurisdiction to decide the present appeal by signing the order of procedure.

175. In the light of the foregoing, the Panel finds that CAS has jurisdiction to hear the present appeal.

VII. ADMISSIBILITY

176. Article R49 of the Code provides as follows:

“In the absence of a time limit set in the statutes or regulations of the federation, association or sports-related body concerned, or in a previous agreement, the time limit for appeal shall be twenty-one days from the receipt of the decision appealed against. [...].”

177. In its relevant parts, Article 11.5 of the IOC ADR applicable to the Sochi Games provides that “[t]he time frame to file an appeal to CAS shall be within twenty-one (21) days from the date of receipt of the decision by the appealing party”.

178. The Appellant received notification of the Appealed Decision on 27 November 2017 and filed her statement of appeal on 1 December 2017.

179. By doing so, the Appellant clearly respected the twenty-one (21) day period set out by the IOC ADR to file the appeal. Moreover, the Respondent did not object to the admissibility of this appeal.

180. In the light of the foregoing, the Panel finds that the appeal is admissible.

VIII. APPLICABLE LAW

181. Article R58 of the Code provides as follows:

“The Panel shall decide the dispute according to the applicable regulations and, subsidiarily, to 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-related body which has issued the challenged decision is domiciled or according to the rules of law, the application of which the Panel deems appropriate. In the latter case, the Panel shall give reasons for its decision.”

182. For the participants of the Sochi Games, the IOC ADR and the provisions of the Olympic Charter were mandatory and accepted by them as a condition of participation. Thus, these provisions are *“the applicable regulations”* in the sense of Article R58 of the Code and constitute the law applicable to the present dispute. The application of these rules was not contested by the Parties.

183. Article 1 of the IOC ADR, entitled *“Application of the Code – Definition of Doping – Breach of Rules”*, provides:

“1.1 The commission of an anti-doping rule violation is a breach of these Rules.

1.2 Subject to the specific following provisions of the Rules below, the provisions of the Code and of the International Standards apply mutatis mutandis in relation to the Sochi Olympic Winter Games.”

184. The Preamble to the IOC ADR explains that references to *“the Code”* refer to the WADC. Therefore, according to Article 1.2 of the IOC ADR, the WADC is applicable to this appeal save to the extent that the ADR contain specific regulations dealing with particular matters. The applicable version of the WADC at the time of the Sochi Games was the 2009 WADC.

185. More specifically, according to Article 2 of the IOC ADR, *“Article 2 of the Code applies to determine anti-doping rule violations [...]”*. Pursuant to this specific incorporation, for the purposes of the Sochi Games, ADRVs are defined pursuant to Article 2 of the 2009 WADC.

186. Furthermore, by virtue of Article 3.1 of the IOC ADR, the WADA Prohibited List *“in force during the Period of the Sochi Olympic Winter Games”*, i.e. the 2014 WADA Prohibited List, is also applicable.

187. In the Appealed Decision, the IOC DC found that a wide-ranging and orchestrated scheme of doping and concealment of positive doping tests was conducted during the Sochi Games. On the basis of that finding, it then went on to conclude that the Athlete had personally committed various ADRVs, namely: (i) violations of Article 2.2 of the 2009 WADC in the form of using a prohibited substance, i.e. the Duchess Cocktail, and using a prohibited method, i.e. urine substitution; (ii) a violation of Article 2.5 of the 2009 WADC, viz. tampering with any part of the doping control; and (iii) a violation of Article 2.8 of the 2009 WADC, viz. cover-up of and complicity in the commission of an ADRV.

188. According to Article 2.2 of the 2009 WADC, the use or attempted use of a prohibited substance or a prohibited method constitutes an ADRV. As noted above, prohibited substances and prohibited methods are defined in the 2014 WADA Prohibited List.
189. Article 2.2.1 of the 2009 WADC states:
- “It is each Athlete’s personal duty to ensure that no Prohibited Substance enters his or her body. Accordingly, it is not necessary that intent, fault, negligence, or knowing Use on the Athlete’s part be demonstrated in order to establish an anti-doping rule violation for Use of a Prohibited Substance or Prohibited Method.”*
190. Article 2.5 of the 2009 WADC states: *“Tampering or Attempted Tampering with any part of Doping Control”* constitutes an ADRV. The Comment to this disposition reads as follows: *“This Article prohibits conduct which subverts the Doping Control process, but which would not otherwise be included in the definition of Prohibited Methods. For example, altering identification numbers on a Doping Control form during Testing, breaking the B Bottle at the time of B Sample analysis or providing fraudulent information to an Anti-Doping Organization.”*
191. The 2014 WADA Prohibited List provides, in its chapter entitled “Prohibited Methods”, under point M2.1 that the following are prohibited: *“Tampering or attempting to tamper, in order to alter the integrity and validity of Samples collected during Doping Control. These include but are not limited to urine substitution and/or alteration (e.g. proteases)”*.
192. Thus, pursuant to the comment to article 2.5 of the 2009 WADC, the alleged swapping of urine samples has, as the Respondent points out, and as the panels in the Other Proceedings have rightly held, first to be examined under the framework of the specific rule of Article 2.2. of the 2009 WADC, rather than by reference to the more general rule of Article 2.5 of the 2009 WADC (CAS 2017/A/5422, para. 704).
193. The Panel concurs with the view of the panels in the Other Proceedings (CAS 2017/A/5422, para. 818) according to which Article 2.5 of the 2009 WADC is only applicable insofar as it relates to acts that are not already included within the definition of prohibited methods under Article 2.2 of the 2009 WADC. Therefore, Article 2.5 of the 2009 WADC covers types of tampering other than urine substitution and of a few other methods defined under section M of the Prohibited List.
194. For these purposes, Appendix 1 to the 2009 WADC provides the following definition of “Tampering”:
- “Altering for an improper purpose or in an improper way; bringing improper influence to bear; interfering improperly; obstructing, misleading or engaging in any fraudulent conduct to alter results or prevent normal procedures from occurring; or providing fraudulent information to an Anti-Doping Organization”*.
195. Pursuant to Article 2.8. of the 2009 WADC, the following conduct shall constitute an ADRV:
- “Administration or Attempted administration to any Athlete In-Competition of any Prohibited Method or Prohibited Substance, or administration or Attempted*

administration to any Athlete Out-of-Competition of any Prohibited Method or any Prohibited Substance that is prohibited Out-of-Competition, or assisting, encouraging, aiding, abetting, covering up or any other type of complicity involving an anti-doping rule violation or any Attempted anti-doping rule violation or any Attempted anti-doping rule violation”.

196. As to the burden and standard of proof, it follows from the general incorporation of the 2009 WADC into the IOC ADR (Article 1.2) that, to the extent that the latter do not contain any specific provision dealing with these subjects, the relevant provisions of the 2009 WADC determine the burden and standard of proof. The same conclusion applies regarding the means of proof.
197. Firstly, as regards to the burden of proof, Article 3.1 of the 2009 WADC provides:
- “The Anti-Doping Organization shall have the burden of establishing that an anti-doping rule violation has occurred”.*
198. Thus, the burden of establishing that the Athlete committed an ADRV is on the IOC.
199. Secondly, as regards to the standard of proof, Article 3.1 states:
- “The standard of proof shall be whether the Anti-Doping Organization has established an anti-doping rule violation to the comfortable satisfaction of the hearing panel bearing in mind the seriousness of the allegation which is made. This standard of proof in all cases is greater than a mere balance of probability but less than proof beyond a reasonable doubt. Where the Code places the burden of proof upon the Athlete or other Person alleged to have committed an anti-doping rule violation to rebut a presumption or establish specified facts or circumstances, the standard of proof shall be by a balance of probability, except as provided in Articles 10.4 and 10.6 where the Athlete must satisfy a higher burden of proof”.*
200. Accordingly, the Panel notes that the relevant standard of proof is that it must be comfortably satisfied that the Athlete committed an ADRV before making a finding against the athlete. In this respect, the Panel adheres to the well-established CAS jurisprudence according to which that standard is *“a kind of sliding scale, based on the allegations at stake: the more serious the allegation and its consequences, the higher certainty (level of proof) the Panel would require to be “comfortable satisfied”.*
201. However, the Panel also considers that the test of comfortable satisfaction must consider the circumstances of the case and that those circumstances include *“[t]he paramount importance of fighting corruption of any kind in sport and also considering the nature and restricted powers of the investigation authorities of the governing bodies of sport as compared to national formal interrogation authorities”* (CAS 2009/A/1920 and CAS 2013/A/3258).
202. Thus, when evaluating whether it is comfortably satisfied that an ADRV has occurred, the Panel is bound to take into consideration all relevant circumstances of the case. In the context of the present case, and by analogy to the cases in the Other Proceedings, the relevant circumstances include, but are not limited, to the following:

- the IOC is not a national or international law enforcement agency. Its investigatory powers are substantially more limited than the powers available to such bodies. Since the IOC cannot compel the provision of documents or testimony, it must place greater reliance on the consensual provision of information and evidence and on evidence that is already in the public domain. The evidence that it is able to present before the CAS necessarily reflects these inherent limitations in the IOC's investigatory powers. The Panel's assessment of the evidence must respect those limitations. In particular, it must not be premised on unrealistic expectations concerning the evidence that the IOC is able to obtain from reluctant or evasive witnesses and other source.
- in view of the nature of the alleged doping scheme and the IOC's limited investigatory powers, the IOC may properly invite the Panel to draw inferences from the established facts that seek to fill in gaps in the direct evidence. The Panel may accede to that invitation where it considers that the established facts reasonably support the drawing of the inferences. So long as the Panel is comfortably satisfied about the underlying factual basis for an inference that the Athlete has committed a particular ADRV, it may conclude that the IOC has established an ADRV notwithstanding that it is not possible to reach that conclusion by direct evidence alone.
- at the same time, however, the Panel is mindful that the allegations asserted against the Athlete are of the utmost seriousness. The Athlete is accused, inter alia, of participating in a conspiracy of unprecedented magnitude and sophistication. Given the gravity of the alleged wrongdoing, it is insufficient for the IOC merely to establish the existence of an overarching doping scheme to the comfortable satisfaction of the Panel. Instead, given that, in order to be liable for conspiracy a person must have knowledge of the existence of that conspiracy and of its object, the IOC must go further and establish that the individual athlete knowingly engaged in particular conduct that involved the commission of a specific and identifiable ADRV. In other words, the Panel must be comfortably satisfied that the Athlete personally committed a specific violation of a specific provision of the 2009 WADC

203. This leads to the third aspect, concerning the means of proof. This aspect is governed by Article 3.2 of the 2009 WADC pursuant to which: "*Facts related to anti-doping rule violations may be established by any reliable means, including admissions*".

204. According to the Comment to Article 3.2 of the 2009 WADC:

"For example, an Anti-Doping Organization may establish an anti-doping rule violation under Article 2.2 (Use or Attempted Use of Prohibited Substance or Prohibited Method) based on the Athlete's admissions, the credible testimony of third Persons, reliable documentary evidence, reliable analytical data from either an A or B Sample as provided in the Comments to Article 2.2, or conclusions drawn from the profile of a series of the Athlete's blood or urine Samples".

205. The Comment to Article 2.2 of the 2009 WADC reads as follows:

"It has always been the case that Use or Attempted Use of a Prohibited Substance or Prohibited Method may be established by any reliable means. As noted in the Comment to Article 3.2 (Methods of Establishing Facts and Presumptions), unlike the proof required to establish an anti-doping rule violation under Article 2.1, Use or Attempted Use may

also be established by other reliable means such as admissions by the Athlete, witness statements, documentary evidence, conclusions drawn from longitudinal profiling, or other analytical information which does not otherwise satisfy all the requirements to establish 'Presence' of a Prohibited Substance under Article 2.1".

206. As regards to this third aspect, the Panel concludes that, when assessing whether the IOC has discharged its burden of proof to the requisite standard of proof, it will consider any admissible “reliable” evidence adduced by the IOC. This includes any admissions by the Athlete, any “credible testimony” by third Parties and any “reliable” documentary evidence or scientific evidence. Ultimately, it is for the Panel to weigh the evidence adduced by the Parties in support of their respective allegations. If, in the Panel’s view, both sides’ evidence carries the same weight, the rules on the burden of proof must break the tie (CAS 2017/A/5422).

IX. MERITS

A. The Alleged Anti-Doping Rule Violations

207. As already mentioned, the IOC DC found that the Athlete had personally committed various ADRVs, namely: (i) violations of Article 2.2 of the 2009 WADC in the form of using a prohibited substance, i.e. the Duchess Cocktail, and using a prohibited method, i.e. urine substitution; (ii) a violation of Article 2.5 of the 2009 WADC, viz. tampering with any part of the doping control; and (iii) a violation of Article 2.8 of the 2009 WADC, viz. cover-up of and complicity in the commission of an ADRV.
208. The Athlete appeals against all of the findings.
209. In its line of argument, the Respondent proceeds in two stage. First it asks the Panel to confirm the existence of a generalised doping scheme in Russia before and during the Sochi Games, one which enabled the Athlete to participate in a doping-control free environment; second, to find a link (even contextual) between the Athlete or one of her urine samples and the generalised doping scheme which is sufficient to allow it to conclude that the Athlete has committed one or more of the alleged ADRVs.
210. Preliminarily, the Panel notes that this line of argument cannot be followed as such. Indeed, the fact that the Panel may be convinced of the existence of the generalised doping scheme in Russia before and during the Sochi Games, does not discharge the IOC of the burden of establishing, to the comfortable satisfaction of the Panel, that the Athlete has knowingly participated in the system by personally committing one or more prohibited actions. In this regard, the Panel notes that circumstantial evidence may have some probative value insofar as individual strands of evidence, which are, taken separately, not sufficient to prove that an ADRV occurred, could, when taken together, establish such ADRV to the Panel’s comfortable satisfaction. However, to do so, such strands of evidence have nonetheless to be established and in a case such as the present, which concerns allegations of doping that may entail heavy sanctions for the Athlete, there must be cogent evidence establishing a personal and direct involvement of the Athlete in the commission of the relevant ADRV.
211. It is, therefore, necessary to examine whether one or more of the alleged acts are established and, in the affirmative, whether they are sufficient individually or collectively to establish

the personal involvement of the Athlete to the comfortable satisfaction of the Panel. It will then be necessary to determine whether the act in question fulfils the criteria for constituting an ADRV within the meaning of Articles 2.2, 2.5 and/or 2.8 of the IOC ADR.

B. Discussion on the evidence considered by the Panel

212. Regarding the different elements of evidence submitted by the Parties, the Panel notes that while the reliability of the different elements has been at the core of the Parties arguments/pleadings - and evidently constitutes a main aspect in this appeal - the admissibility of most of the elements of evidence has not been contested. This is, however, not the case for the LIMS data of the Moscow Laboratory. Indeed, the Appellant has argued that this data is not admissible evidence in the present appeal as it was not part of the scope of the Appealed Decision.
213. In this regard, the Panel notes that, pursuant to Article R57 of the Code it “*has full power to review the facts and the law*” (para. 1) and “*has the discretion to exclude evidence presented by the parties if it was available to them or could reasonably have been discovered by them before the challenged decision was rendered*” (para. 3). It is clear from the case law of the CAS that the inherent discretion of a CAS panel to exclude certain evidence under Article R57, para. 3, of the Code should be construed in accordance with that fundamental principle of the *de novo* power to review. Therefore, the discretion to exclude evidence should be exercised with caution, for example in situations where a party may have engaged in abusive procedural behaviour, or in other circumstances where the CAS panel might, in its discretion, consider either unfair or inappropriate to admit new evidence (CAS 2017/A/5371).
214. In the present case, it is not contested that during the proceedings before the IOC DC the evidence related to the LIMS data was not available to the Parties, including the Respondent. It is further not contested that this evidence was submitted as soon as possible, i.e. with the answer, and that there is no indication that the Respondent may have engaged in any abusive procedural behaviour, or in any other facts or circumstances, that would render the admission of the LIMS data as evidence to be considered as unfair or inappropriate. Further, this evidence is in line with the arguments presented by the Respondent in the proceedings before the IOC DC, and the Appellant had the opportunity to discuss the evidence in her rejoinder and during the hearing so that her right to be heard has been respected. The Panel thus admits the LIMS data as evidence in the present proceedings.
215. As for the other evidence, considering the very large scope of elements that could be admitted as evidence, the Panel does not see any ground not to take into consideration all the factual and forensic evidence submitted by the Parties. The probative value and reliability of the different elements of evidence submitted by the Parties will be assessed in relation to the different alleged actions (acts), i.e. (i) the provision of clean urine by the Athlete in advance of the Sochi Games, (ii) the use by the Athlete of the Duchess Cocktail; (iii) deliberate limited closure of the sample bottles by the Athlete; (iv) transmission of the DCF by the Athlete or member of his entourage to Ms. Rodionova and/or the Sochi Laboratory; (v) the LIMS and (vi) sample swapping.

a. *The providing of clean urine*

216. The Panel first considers the alleged deliberate provision, by the Athlete, of clean urine in advance to the Sochi Games for the purpose of facilitating the subsequent swapping of her urine during the Sochi Games. The Panel notes that, in her written statement and in her oral evidence during the hearing, the Athlete vigorously denied ever having provided clean urine for purposes other than annual medical check-ups or regular anti-doping controls.
217. Next, the Panel observes that it is clear from Dr. Rodchenkov's witness statement, that he has never seen the Athlete provide clean urine in advance of the Sochi Games. Further, Dr. Rodchenkov's Athlete-specific witness statement does not contain any specific element in relation to the alleged provision of clean urine for the purpose of sample swapping except for a reference to urine samples provided on 24 October 2012. There is no other evidence, such as EDP evidence, referring to the alleged provision of clean urine by the Athlete in advance of the Sochi Games for the purpose of urine swapping.
218. Finally, the Respondent did not specify when, where and how the Athlete would have provided clean urine for the alleged "clean urine bank", and acknowledged that the urine provided by the Athlete on 24 October 2012 was not provided for swapping the urine of her B-samples at the Sochi Games.
219. Thus, even if the Respondent's question on how the data of a medical check-up done at the Burnazyan Hospital could end up the Moscow Laboratory remained unanswered, the Panel concludes that there is no direct evidence that the Athlete provided clean urine in advance of the Sochi Games for the purpose of sample swapping during the Sochi Games.

b. *The presence on the Duchess List and use of the Duchess Cocktail*

220. According to the Respondent, the fact that the Athlete's name is on the Duchess List constitutes evidence that she was expected to use the Duchess Cocktail and was a "protected athlete". This entailed the conclusion, according to the Respondent, that the urine samples she provided at the Sochi Games would be automatically substituted by the Sochi Laboratory.
221. In this regard, the Panel notes, first, that except for Dr. Rodchenkov's witness statement, according to which the Duchess List contains the names of the athletes that were to take the Duchess Cocktail, there is no evidence before the Panel that the Athlete took the Duchess Cocktail. It is uncontested that Dr. Rodchenkov has not observed the Athlete take the Duchess Cocktail, and has not provided the Athlete with the Cocktail.
222. Moreover, unlike the "Washout Schedules", which were at the heart of some cases dealt with by several CAS panels, the Duchess List does not contain any indication as to whether or not the athletes on the list did actually take the Duchess Cocktail or any of the Prohibited Substances it was composed of. In particular, there is no evidence or other indication that any of the ingredients of the Duchess Cocktail were ever found during an ITP of one of the Athlete's urine samples.
223. The probative value of the Duchess List is further diminished when it comes to the individual culpability of the athletes, as stated by the panels in the Other Proceedings, by the fact that not all athletes sanctioned by the IOC DC in relation with the Sochi Games

“appear on the Duchess List demonstrates that, even on the IOC’s case, the Duchess List is not suggested to be a fully comprehensive contemporaneous reflection of the athletes’ alleged involvement in doping practices”.

224. Further, even when read in context with the summary of the overall scratch marks found on the sample bottles of all Russian athletes, it appears that no definite conclusion can be drawn – one way or the other – as to whether any athlete on the Duchess List used the Duchess Cocktail or any of its prohibited substances before or during the Sochi Games.
225. Finally, this summary and the Duchess List, read together, do not prove to the comfortable satisfaction of the Panel the Respondent’s submission, based on Dr. Rodchenkov’s explanation, according to which the samples of the “protected athletes” were automatically substituted at the Sochi Laboratory. Indeed, even if the Respondent stressed that it would be possible to open bottles without leaving any T-marks, it is significant, in the view of the Panel, that a certain number of sample bottles of athletes on the Duchess List show no – or only isolated – T-Marks. According to Prof. Champod, this provides some moderate support for the view that the sample bottles have not been re-opened, or at least no particular support for one proposition versus the other.
226. In view of the above, the Panel considers that the fact that the Athlete’s name is on the Duchess List is not itself sufficient for it to be comfortably satisfied that the Athlete used the Duchess Cocktail or any of its prohibited ingredients before or during the Sochi Games, so as to allow the conclusion that the urine samples she provided at the Sochi Games were to be substituted by the Sochi Laboratory.

c. The deliberate limited closure of the sample bottles

227. According to the Respondent, the deliberate limited closure of her sample bottles by the Appellant was supposed to facilitate the re-opening of said bottles in view of the substitution of her urine.
228. In this regard, the Panel notes, first, that none of the Appellants’ three samples provided at the Sochi Games are among the bottles for which Prof. Champod has evaluated the initial level of closure and concluded that it would have been below 15 clicks. Next, in the witness statement and in her oral evidence, the Appellant categorically denied not having closed the sample bottles to their full extent. Lastly, in their respective witness statements, Mr. Verevkin and Mr. Knyazev, who were in charge of a doping control station, stated that the DCOs would make sure that the bottles closed by the athletes were closed *“to the maximum extent possible”* and that there was, thus, a double check of the full closure of the sample bottles.
229. The Panel further observes that, on the other hand, the Respondent has not submitted any direct or indirect evidence indicating that the Appellant might have deliberately closed her sample bottles to less than the fullest extent.
230. In any event, as Prof. Champod has, over the course of time and with the help of newly designed tools, managed to open bottles closed to the fullest extent, i.e. 15 clicks, the Panel considers that the evidence that a sample bottle was not fully closed might be a helpful element in establishing that an athlete was personally involved in the generalised doping

scheme. It is not, however, in the view of the Panel, decisive when it comes to assessing whether or not the Appellant has committed an ADRV.

231. In view of the above, the Panel concludes that on basis of the evidence before it, it is not comfortably satisfied that the Appellant deliberately closed her sample bottles to less than the maximum extent.

d. The transmission of the DCF by the Athlete or member of his entourage

232. As to the alleged transmission by the Appellant or a member of her entourage of the DCFs to Ms. Rodionova and/or to the Sochi Laboratory, the Panel notes, first, that in her witness statement and in her oral testimony, the Appellant firmly denied that she or a member of her entourage that accompanied her to the doping control station had communicated the DCFs or the sample numbers to Ms. Rodionova whom, on top, the Appellant affirms to never have met and to not know. Further, the Appellant also denied having communicated any information in relation to her DCFs to the Sochi Laboratory. Next, in her witness statement, Ms. Rodionova stated that while at the Sochi Games she was not in possession of a phone that could receive pictures and did not have any communication with the members of the Russian National Team and, thus with the Appellant. Finally, in their respective witness statements, Mr. Verevkin and Mr. Knyazev stated that the use, by the athletes or their entourage, of phones or other recording devices at the doping control stations was prohibited and that the DCOs would make sure that said prohibition was respected.

233. The Panel observes that the Respondent's arguments in support of its allegation that the Appellant herself – or her support personnel – is the most likely source of the information in relation to the identification of her sample numbers, is drawn from the witness statements of Dr. Rodchenkov and based on the inference that the transmission of the information was a necessary element in the execution of the alleged sample swapping-scheme. However, in his witness statement Dr. Rodchenkov did not avow having witnessed the Appellant or someone from her support personnel take pictures of the DCF's, and/or communicate the sample numbers to Ms. Rodionova or to himself. Further, Dr. Rodchenkov's witness statement is not corroborated by any other direct (or indirect) evidence. Finally, the Respondent has not adduced any other evidence, might it be witness evidence or documentary evidence, likely to establish that the Appellant or a member of her entourage has communicated information in relation to her DCFs or sample numbers to Ms. Rodionova and/or the Sochi Laboratory.

234. In view of the above, the Panel considers that, on the basis of the evidence submitted by the Parties, it is not comfortably satisfied that the Appellant and/or a member from her entourage had communicated information in relation to the Appellant's DCFs to Ms. Rodionova and/or the Sochi Laboratory.

e. The LIMS

235. The Respondent refers to the LIMS data as indication that the Appellant had to be identifiable to the Laboratory for the purpose of sample swapping and as corroborating evidence showing that the whole anti-doping control process at the Sochi Games was flawed, as the Sochi Laboratory knew to which Russian athlete the samples it was testing belonged to. For the purpose of the present proceedings, the Respondent did not distinguish

between the “WADA LIMS” data, obtained from a whistle-blower in September 2017, and the “Moscow LIMS” data, provided to WADA in 2019 by RUSADA at the Moscow Laboratory. It is uncontested that the LIMS data has not been submitted to the IOC DC and that its reliability has, thus, not been the subject of any assessment in the Appealed Decision.

236. Although the Appellant has questioned the reliability of the LIMS data, the Panel considers that there is no need to decide on the matter as, in any event, it finds that in the present case, the evidentiary weight of said data is limited and cannot materially support the Respondent’s argumentation. Indeed, first, in contrast to what has been found in relation to other cases brought forward by the Respondent, i.e. the cases of Ms. Sleptsova and Ms. Glazyrina, the LIMS data does not contain any indication of an alleged AAF during an ITP that would, later on, have been reported as negative in ADAMS. This does clearly not sustain the Respondent’s argument according to which doping is not taken for - or during a specific competition but is taken over a certain period of time before the competitions. Second, the fact that, in violation of the WADA International Standard for Testing and Investigations, the Athlete’s name appears in the LIMS data cannot be attributed to the Appellant. Indeed, as the Panel already concluded above, there is no evidence that the Appellant or a member of her entourage communicated information in relation to the Appellant’s DCFs to a third party. Further, it was not the Athlete’s duty to manage the LIMS nor to guarantee the regularity of the testing procedures run in the Moscow and Sochi Laboratories. Thus, the Athlete cannot be held liable for the shortcomings of these Laboratories.
237. In view of the above, the Panel considers that, due to its limited evidentiary weight for the present case, no conclusions may be drawn from the LIMS data in respect to the Appellant’s alleged personal implication in the overarching general doping scheme.

f. The sample swapping

238. In the present case, the Respondent submits, in essence, that the scratch marks, i.e. multiple T-Marks, found by Prof. Champod on the Appellant’s sample bottle B2891822 are indicative of sample swapping that occurred in the Sochi Laboratory.
239. The Panel carefully considered the different explanations and arguments brought forward respectively by Prof. Champod and Mr. Arnold. It concludes that Prof. Champod’s reports and expert evidence are, on balance, a more persuasive than Mr. Arnold’s. In this regard, the Panel considers that (i) Prof. Champod’s successive reports and conclusions have successfully addressed the different questions or doubts raised by the panels in the Other Proceedings, (ii) Prof. Champod and his team had and gained over the time sufficient experience to be able to give reliable evidence, (iii) that the number of bottles examined by Prof. Champod has significantly increased over time and has reached a figure which is sufficient to be considered representative, (iv) Prof. Champod and his team have managed to re-open fully closed sample bottles, containing unfrozen liquid and standing in an upright position; (v) Mr. Arnold’s criticism was mainly directed against Prof. Champod’s methodology and tests but did not examine the found results as such, and this although the images were at his disposal; (vi) that the alternative hypothesis evoked by Mr. Arnold, in particular that the T-marks could be the result of transportation, freezing and thawing, or an athlete playing with the metal ring of the sample bottle during the anti-doping test are either proven wrong by the results found in the SB/DB test samples, unrealistic or simple

contradicted by the fact that all witnesses testified that the anti-doping tests were done according to the protocol, which excludes that an athlete would be allowed to play around with a sample bottle or its cap. Moreover, on a more general level, the Panel deems that Mr. Arnold's experience in the ballistic sector and his referrals to methods and conclusions originating from that sector cannot be transposed to the analyses in question in the present matter; as Prof. Champod's mission was not to establish by what tool sample bottles could have been opened but rather whether it was possible to open and reclose said bottles. Finally, the Panel considers that Prof. Champod's specific expertise and qualifications prevail over Mr. Arnold's.

240. If the Panel is, thus, inclined toward Prof. Champod's conclusion that the findings of multiple T-marks on a sample bottle, in the present case sample B2891822, provide "*very strong support for the view that the bottle has been tampered with as alleged, rather than the view that the bottle has not been re-opened*", the fact remains that the two other samples bottles attributed to the Appellant do not show any such T-marks. This provides, in Prof. Champod's words, "*moderate support for the view that the bottle has not been re-opened*". It tends to undermine the Respondent's argument that the Appellant's samples were systematically swapped because she was a "protected athlete".
241. In the present case, two of the Appellant's sample bottles - B2889607 and B2890580 - show no T-marks. One sample bottle - B2891822 - shows multiple T-marks. Thus, the Panel considers that the findings in regard to the Appellant do support the conclusion, to its comfortable satisfaction, that one bottle is likely to have been re-opened.
242. However, the Panel stresses that it is reluctant to conclude that a sample swapping occurred solely on the basis of circumstantial evidence that multiple scratch marks have been found on a single sample bottle. Further, such conclusion would, in absence of any other evidence likely to establish an athlete's knowledge of and implication in the swapping of his or her urine, for example by having provided clean urine, not be sufficient to comfortably satisfy the Panel that such substitution could be attributed to the athlete in question.
243. In view of the above, the Panel finds that, in the present case, there is simply not sufficient evidence for it to be comfortably satisfied that the Appellant's sample bottles, in particular sample B2891822, were opened for the purpose of urine substitution.

C. Conclusion

244. On basis of all these considerations the Panel concludes that, in the present case, none of the acts alleged by the Respondent has been established to the comfortable satisfaction of the Panel. The Panel further finds that the probative value of circumstantial evidence has its limits and that even when taken together and put into context, in the present case the different strands of factual and forensic evidence submitted by the Respondent do not lead the Panel to be comfortably satisfied that the Appellant was personally and knowingly implicated in any of the alleged acts.
245. Thus, none of the alleged ADRVs can be considered as established.
246. As a consequence, the Panel does not find that the Appellant committed (i) a violation of Article 2.2 of the 2009 WADC in the form of use or attempted use of a prohibited substance or a prohibited method, (ii) a violation of Article 2.5 of the 2009 WADC in form of

tampering with any part of the doping control or (iii) a violation of Article 2.8 of the 2009 WADC in form of cover-up of and/or complicity in the commission of an ADRV. In absence of any finding of an ADRV against the Appellant, no individual sanction can be validly imposed in the present case.

247. Accordingly, the Panel concludes that the findings and sanctions imposed against the Appellant by the IOC DC in the Appealed Decision of 27 November 2017 and the corresponding reasoned decision of 22 December 2017, shall be set aside and that the Appellant's individual results achieved at the Sochi Games shall be reinstated, with all resulting consequences concerning medals, medallist pins and diploma. That said, in view of the outcome of the proceedings in CAS 2017/A/5444, Olga Zaytseva v. IOC, the disqualification of the results achieved by the Appellant in the Women's 4x6km Biathlon Relay Event and in the Relay Mix Biathlon Event at the Sochi Games, is not affected.

X. COSTS

(...).

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. The appeal filed by Ms. Olga Vilukhina on 1 December 2017 against the decision of the International Olympic Committee Disciplinary Commission dated 27 November 2017 is upheld.
2. The decision of the International Olympic Committee Disciplinary Commission dated 27 November 2017 is partially set aside except for points II, III, IV, VI, VII and VIII.
3. All results achieved by Ms. Olga Vilukhina upon the occasion of the XXII Olympic Winter Games in Sochi, Russia in individual events, are reinstated, with all resulting consequences.
4. (...).
5. (...).
6. All other motions or prayers for relief are dismissed.

Seat of arbitration: Lausanne, Switzerland

Award issued on 24 September 2020

COURT OF ARBITRATION FOR SPORT

Jacques Radoux
President of the Panel

Philippe Sands
Arbitrator

Petros C. Mavroidis
Arbitrator