



Arbitration CAS 2019/A/6166 Svetlana Shkolina v. International Association of Athletics Federations (IAAF), award of 6 April 2021

Panel: Mr Stephen Drymer (Canada), President; Mr Hamid Gharavi (France); Mr Romano Subiotto QC (Belgium)

Athletics (high jump)

Doping (desoxymethyltestosterone, methasterone)

Admissibility of the appeal in case the national association is not named as the respondent

Means of evidence

Influence of a doping plan or scheme on establishing ADRVs in individual cases

Assessment of circumstantial evidence

Distinction between liability and sanction with regard to the state of knowledge of the athlete

Doping plan or scheme as aggravating circumstance in the assessment of the period of ineligibility

Disqualification of results

1. According to Rule 42.18 of the 2016 IAAF Competition Rules, ***“as a general rule, the respondent to a CAS appeal shall be the party which has taken the decision that is subject to appeal. Where the Member has delegated the conduct of a hearing (...) in accordance with Rule 38.5, the respondent to the CAS appeal against such decision shall be the member”***. The words ***“as a general rule”*** are indicative that this provision does not lay down conditions that are mandatory in every case and in all circumstances. In addition, the requirement that an appeal must be brought against ***“the member”*** is expressly limited to circumstances where that member ***“has delegated the conduct of a hearing ... in accordance with Rule 38.5”***. However, where a national association ceases to be a member of the IAAF for any reason, it is impossible for it to conduct a hearing and therefore there is no proper ***“delegation”*** within the meaning of Rule 38.5. In such a case, there is no mandatory rule requiring to bring the appeal against the national association.
2. The IAAF Competition Rules make no distinction between ***“direct”*** and ***“circumstantial”*** evidence, nor do they specify that evidence must have been created or obtained specifically for the purpose of proving anti-doping rule violations (ADRVs). They state that the party with the burden of proving an ADRV – may resort to ***“any reliable means”***. The use of the word ***“any”*** makes clear that there is no restriction on the type or nature of evidence that may be adduced. However, findings of fact can only be reached on the basis of evidence that is reliable.
3. The mere existence of a doping scheme does not suffice for the purposes of establishing ADRVs in individual cases. However, the existence of such a scheme is a relevant fact to be taken into account in the evaluation of the evidence.

4. In a case where there are various non-analytical evidentiary elements, not only each element individually, but also the global weight of the evidence as a whole should be considered. It is in the nature of circumstantial evidence that single items of evidence may each be capable of an innocent explanation but, taken together, establish guilt to the ‘comfortable satisfaction’ mandated from a tribunal before it can inculcate a sportsperson of a disciplinary offence.
5. Liability under the IAAF Competition Rules is a rule of strict liability. An ADRV is established notwithstanding any intent, fault, negligence or knowledge on the part of the athlete. By contrast to the issue of liability, the state of knowledge of the athlete is relevant to the question of sanction.
6. In the circumstances, where it cannot be shown that an athlete was aware of the existence of a wider doping plan or scheme at the time the prohibited substances were used, the mere existence of such plan or scheme does not, of itself, amount to an aggravating circumstance in the assessment of the period of ineligibility. This flows from the language of the relevant rule which states that the aggravating circumstance exists when the athlete committed the ADRV “*as part*” of that scheme.
7. When applying the wide discretion it retains in the disqualification of results, a CAS panel must be guided by the principles of fairness and proportionality.

I. THE PARTIES

1. Ms. Svetlana Shkolina (“Appellant” or “Athlete”) is a Russian high jumper born in 1986. She became a professional athlete in 2003 and won the bronze medal in the women’s high jump at the 2012 Olympic Games in London and the gold medal at the 2013 Moscow World Championships. For the purposes of the IAAF Competition Rules (“IAAF Rules”), she is an International-Level Athlete.
2. The International Association of Athletics Federations, now known as World Athletics, (“Respondent” or “IAAF”) is the world governing body for athletics, recognised as such by the International Olympic Committee (“IOC”)¹. The IAAF is a signatory to the World Anti-Doping Code and is responsible for the running and enforcing of an anti-doping programme. The IAAF, which has its registered seat in Monaco, has the legal status of an association under the laws of Monaco.

¹ For ease of reference, the Panel will refer to the Respondent as “IAAF” throughout this Award. All references to the IAAF after November 2019 should be read as referring to World Athletics.

II. FACTUAL BACKGROUND

3. This Award contains a concise summary of the relevant facts and allegations based on the parties' written submissions, correspondence and the evidence adduced. Additional facts and allegations found in the parties' written submissions, correspondence and evidence may be set out, where relevant, in connection with the legal discussion that follows. While the Panel has carefully considered all the facts, allegations, legal arguments, correspondence and evidence submitted by the parties, the Panel refers in this Award only to the matters it considers necessary to explain its reasoning and conclusions.
4. This case is an appeal against the first instance decision of the Sole Arbitrator in CAS 2018/O/5667 *IAAF v. Russian Athletics Federation (RUSAF) & Svetlana Shkolina* ("Challenged Decision"). In that decision, the Sole Arbitrator determined that the Athlete committed anti-doping rule violations ("ADRVs") in contravention of Rule 32.2(b) of the 2012 IAAF Rules.
5. This is not a typical doping appeal: there is no official positive test result of a sample collected from the Athlete. The evidence in this case stems from the two reports of Prof. Richard H. McLaren (the "McLaren Reports") and the underlying evidence, which was made publicly available, in anonymised form, in the Evidence Disclosure Package ("EDP"). It is the McLaren Reports, and in particular certain EDP documents, upon which IAAF relies in seeking to prove that the Athlete has committed ADRVs.
6. It is recalled that on 19 May 2016, the World Anti-Doping Agency ("WADA") announced the appointment of Prof. McLaren as an Independent Person to conduct an investigation of allegations made by Dr. Grigory Rodchenkov, the former Director of the Moscow Anti-Doping Centre in Russia ("Moscow Laboratory"). In his first report, submitted to WADA on 16 July 2016 ("First McLaren Report"), Prof. McLaren concludes that:

"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 Positive Methodology.

2. The Sochi Laboratory operated a unique sample swapping methodology to enable doped Russian athletes to compete at the 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 FSB, CSP, and both Moscow and Sochi Laboratories".

7. Prof. McLaren's second report, submitted to WADA on 9 December 2016 ("Second McLaren Report"), detailed the work of his investigative team and sought to confirm the findings of the First McLaren Report.

A. Notification of Anti-Doping Rule Violations

8. By letter dated 6 November 2017, the Athletics Integrity Unit ("AIU"), on behalf of the IAAF, informed the Athlete that she would be charged with one or more ADRVs. These were said to

be “*in connection with*” the McLaren Reports. The AIU describes the following three “*counter-detection methodologies*” which it states were uncovered by Prof. McLaren:

(a) *Disappearing Positive Methodology*

- a. Where the initial screen of a sample revealed an adverse analytical finding (“AAF”), the athlete in question would be identified and the Russian Ministry of Sport would, through a liaison person, decide either to “*SAVE*” or “*QUARANTINE*” the athlete.
- b. The AAF would typically be notified by email from the Moscow Laboratory to one of the liaison persons, who would then respond in order to advise whether the athlete should be “*SAVED*” or “*QUARANTINED*”.
- c. If an athlete was “*SAVED*”, the Moscow Laboratory would report the sample as negative in the Anti-Doping Administration and Management System (“ADAMS”) and manipulate the Laboratory Information Management System (“LIMS”). If the athlete was “*QUARANTINED*”, the analytical bench work on the sample would continue and the AAF would be reported in the normal way.

(b) *Sample Swapping Methodology*

- a. This involved the replacing of ‘dirty’ urine with ‘clean’ urine. This necessitated the removing and replacing of the cap on sealed B sample bottles through a technique developed and implemented by a team of the Russian Federal Security Service (FSB) known as the ‘magicians’.
- b. The Sample Swapping Methodology was trialled with respect to a limited number of athletes at *inter alia* the 2013 IAAF World Championships in Moscow, rolled out in more systematic fashion at the 2014 Winter Olympic Games in Sochi and continued in operation thereafter with respect to samples stored in the WADA-accredited laboratory in Moscow.
- c. The Sample Swapping Methodology was facilitated by the establishment and maintenance of a ‘clean urine bank’ at the Moscow Laboratory, comprising of unofficial urine samples provided by certain athletes that were analysed, stored and recorded in schedules in the Moscow Laboratory.
- d. The ‘magicians’ would be called into the Moscow Laboratory on a monthly basis to remove the caps of the B samples that needed to be swapped.

(c) *Washout Testing*

- a. The McLaren Reports describe a programme of washout testing prior to certain major events, including the 2012 London Olympic Games and the 2013 Moscow World Championships.

- b. Washout testing was deployed in 2012 to determine whether the athletes on a doping program were likely to test positive at the 2012 London Olympic Games.
 - c. At that time, the relevant athletes were providing samples in official doping control Bereg kits. Even when the samples screened positive, they were automatically (*i.e.* without the need for a specific “*SAVE*” order) reported as negative in ADAMS.
 - d. The Moscow Laboratory developed schedules to keep track of athletes subject to washout testing, using official Bereg kits, in advance of the 2012 London Olympic Games (the “London Washout Schedules”).
 - e. The Moscow Laboratory realised that, as the Bereg kits were numbered and could be audited, seized or tested, it would only be a matter of time before it was discovered that the contents of the samples would not match the entries in ADAMS/LIMS. Therefore, the washout testing programme evolved prior to the 2013 Moscow World Championships whereby washout testing would no longer be performed using official Bereg kits, but instead with non-official containers such as Coke bottles or baby bottles.
 - f. This unofficial washout testing consisted of collecting samples at regular intervals and testing those samples for quantities of prohibited substances to determine the rate at which those quantities were declining so that there was certainty that the athlete would test clean in competition. If the washout testing determined that the athlete would not test clean at the competition, the athlete was left at home.
 - g. The Moscow Laboratory developed schedules to keep track of those athletes who were subject to the unofficial washout testing scheme (the “Moscow Washout Schedules”).
9. In its letter of 6 November 2017, the AIU informed the Appellant that she was one of the athletes identified by Prof. McLaren as being involved in, or benefitting from, the doping scheme and practices described in the McLaren Reports. The AIU provided the following summary of evidence against the Athlete:

“(i) London Washout Testing

11. *Three of your (official) doping control samples feature on the London Washout Schedules as follows: (i) sample 2729686 collected on 16 July 2012 (see, for example, EDP0019), (ii) sample 2729483 collected on 21 July 2012 (see, for example, EDP0021) and (iii) sample 2728713 collected on 31 July 2012 (see, for example, EDP0026).*
12. *The following information is recorded on the London Washout Schedules in respect of the 16 July 2012 sample (see EDP0019):*
 - *Desoxymethyltestosterone 2,300,000*
13. *The following information is recorded on the London Washout Schedules in respect of the 21 July 2012 sample (see EDP0021):*
 - *Desoxymethyltestosterone 300,000*

14. *On the London Washout Schedules, it is indicated that the results of a sample collected on 31 July 2012 will be received: 'tomorrow'.*
15. *All three samples were reported as negative in ADAMS.*

(ii) Moscow Washout Testing

16. *Six (unofficial) samples on the Moscow Washout Schedules are listed as belonging to you; they date from 28 June, 6, 17, 23, 30 July and 17 August 2013 respectively (see, for example, EDP0032).*
17. *The following information is recorded on the Moscow Washout Schedules in respect of the 28 June 2013 sample:*
 - *Methasterone 8,700,000*
18. *The following information is recorded on the Moscow Washout Schedules in respect of the 6 July 2013 sample:*
 - *Methasterone metabolite 600,000*
19. *The following information is recorded on the Moscow Washout Schedules in respect of the 17 July 2013 sample:*
 - *T/E – 0.8*
 - *Methasterone long-term metabolite 40,000*
20. *The following information is recorded on the Moscow Washout Schedules in respect of the 23 July 2013 sample:*
 - *Methasterone metabolite 20,000*
21. *The following information is recorded on the Moscow Washout Schedules in respect of the 30 July 2013 sample:*
 - *Methasterone metabolite 20,000 no change!*
22. *The 17 August 2013 sample is marked WC on the Moscow Washout Schedules; this denotes that it was collected during the Moscow World Championships. In fact, it was collected on the same day as you competed in the high jump finals. It is marked 'clear'.*

(iii) Clean Urine Bank Schedules

23. *One of your samples features on one of the Clean Urine Bank Schedules (see EDP0757)².*

10. The AIU informed the Athlete that the IAAF considered these matters to constitute a violation of Rule 32.2(b) of the IAAF Rules. It was on this basis that the Athlete was charged with using

² Footnotes omitted.

prohibited substances (in particular desoxymethyltestosterone and methasterone on multiple occasions during the period 2012 to 2013).

11. The AIU also notified the Athlete that the IAAF intended to seek an increased period of ineligibility up to the maximum of four years pursuant to Rule 40.6 of the IAAF Rules on the basis of aggravating circumstances.
12. The IAAF granted the Athlete an opportunity to admit the violations by 20 November 2017. The IAAF further informed the Athlete that if she admitted the violations by that date, she could avoid the application of the increased sanction and limit her period of ineligibility to two years.

B. First instance proceedings before the Court of Arbitration for Sport

13. On 20 and 27 November 2017, the Athlete provided explanations to the AIU, as requested, denying the allegations.
14. On 12 January 2018, the AIU informed the Athlete that it maintained the ADRV allegations, which would accordingly be referred to the CAS. The AIU invited the Athlete to choose between the following two procedures:
 - a. A first-instance hearing at the CAS before a Sole Arbitrator pursuant to IAAF Rule 38.3, whereby the decision would be subject to appeal to CAS in accordance with Rule 42; or
 - b. A hearing before a CAS Panel as a single hearing, subject to the agreement of WADA, in accordance with IAAF Rule 38.19, whereby the decision would not be subject to appeal save, in limited circumstances, to the Swiss Federal Tribunal.
15. Whereas the Athlete opted for a single instance decision under Rule 38.19 of the IAAF Rules, WADA did not consent. Therefore, the matter was submitted to the CAS under Rule 38.3 of the IAAF Rules.
16. On 6 April 2018, the IAAF filed its Request for Arbitration with the Ordinary Division of the CAS against the Russian Athletics Federation (“RUSAF”) and the Athlete in accordance with Articles R38 and R51 of the CAS Code of Sports-related Arbitration (the “Code”).
17. On 1 February 2019, after considering the parties’ written and oral submissions, and evidence, the Sole Arbitrator rendered the Challenged Decision as follows:

“The Court of Arbitration for Sport rules that:

1. *The Request for Arbitration filed by the International Association of Athletics Federations (IAAF) on 6 April 2018 is partially upheld.*
2. *A period of ineligibility of four (4) years is imposed on Ms Svetlana Shkolina, starting from the date of this award.*

3. *All competitive results of Ms Svetlana Shkolina from 16 July 2012 through to 28 July 2015 are disqualified, with all resulting consequences (including forfeiture of any titles, awards, medals, profits, prizes, and appearance money).*
4. *The costs of the arbitration, to be determined and served to the Parties by the CAS Court Office, shall be borne in their entirety by the Russian Athletic Federation.*
5. *The Russian Athletic Federation and Ms Svetlana Shkolina are ordered to pay, jointly and severally, CHF 8,000.00 (eight thousand Swiss Francs) to the International Association of Athletics Federations as a contribution towards its legal fees and expenses. The Russian Athletic Federation and Ms Svetlana Shkolina shall bear their own legal fees and expenses.*
6. *All other motions or prayers for relief are dismissed”.*

III. THE PRESENT APPEAL PROCEEDINGS BEFORE THE COURT OF ARBITRATION FOR SPORT

18. On 22 February 2019, the Appellant filed a Statement of Appeal with the CAS against the Respondent in respect of the Challenged Decision in accordance with Article R47 *et seq.* of the Code. Within the Appellant’s Statement of Appeal, she nominated Dr. Hamid G. Gharavi as arbitrator.
19. Together with her Statement of Appeal, the Appellant filed a request for provisional measures, specifically a stay of the Challenged Decision, in accordance with Article R37 of the Code.
20. On 6 March 2019, the Respondent filed its response to the Appellant’s request for provisional measures.
21. On 26 March 2019, the Respondent nominated Mr. Romano Subiotto QC as arbitrator.
22. On 2 April 2019, the Appellant filed her Appeal Brief in accordance with Article R51 of the Code.
23. On 2 May 2019, the CAS Court Office, on behalf of the President of the Appeals Arbitration Division, confirmed the appointment of the Panel in this appeal as follows:

President: Mr. Stephen Drymer, Attorney-at-Law in Montreal, Canada
Arbitrators: Dr. Hamid G. Gharavi, Attorney-at-Law, Paris, France
Mr. Romano F. Subiotto QC, Avocat in Bruxelles, Belgium and Solicitor-Advocate in London, United Kingdom
24. On 23 May 2019, the CAS Court Office, on behalf of the Panel, informed the parties that the Appellant’s request for a stay, as formulated in her Statement of Appeal, did not appear to form part of her case as pleaded in the Appeal Brief. Consequently, the Panel invited the Appellant to state whether it should consider her request for a stay abandoned, or alternatively, whether she maintained her request.

25. On 24 May 2019, the IAAF filed its Answer in accordance with Article R55 of the Code.
26. On 28 May 2019, the Appellant confirmed that she maintained her request for a stay of execution of the Challenged Decision.
27. On 12 June 2019, the CAS Court Office informed the parties that Mr. Rémi Reichhold had been appointed as *ad hoc* clerk to assist the Panel.
28. On 25 June 2019, the Panel issued a decision in respect of the Athlete's request for provisional measures, dismissing the request on the basis that the Appellant failed to demonstrate that the provisional relief sought was necessary to protect her from irreparable harm.
29. On 2 March 2020, both the Respondent and the Appellant returned signed copies of the order of procedure to the CAS Court Office. The IAAF had added a hand-written annotation to the order of procedure, stating that: “[t]he Respondent challenged the admissibility of the appeal and in the alternative the jurisdiction of CAS based on the failure to nominate RUSAF as Respondent”.
30. The hearing in this appeal was held on 4 and 5 March 2020 in Lausanne, Switzerland. The Panel was assisted at the hearing by Mr. Brent J. Nowicki, Managing Counsel and Mr. Rémi Reichhold, *ad hoc* clerk.
31. The participants at the hearing on behalf of the parties were are follows:

For the Athlete

- Ms. Svetlana Shkolina (by videoconference)
- Mr. Philippe Bärtsch, Dr. Stefan Leimgruber, Mr. Damien Clivaz and Mr. Simon Demaurex (counsel)
- Mr. Kirill Burkhard (paralegal)
- Mr. Manuel Rundt (forensic and security IT expert) (by videoconference)
- Prof. Michael Graham (doping expert) (by videoconference)
- Mr. Alexandre Ponomarev (interpreter)

For the IAAF

- Mr. Ross Wenzel and Mr. Nicolas Zbinden (counsel)
 - Dr. Grigory Rodchenkov (witness) (by videoconference)
 - Mr. Andrew Sheldon (computer forensic expert) (by videoconference)
 - Prof. Christiane Ayotte (doping expert)
 - Prof. Christophe Champod (forensic science expert)
 - Ms. Laura Gallo (representative of the AIU)
32. During the hearing, the Panel invited all witnesses and interpreters to tell the truth, subject to the sanction of perjury under Swiss law.

33. At the close of the hearing, both parties confirmed that they had received a fair hearing and had been given the opportunity to fully present their cases.
34. The legal representatives acting for the Athlete in this case also represent four other Russian athletes who, in common with the Appellant, were all found guilty of ADRVs by a Sole Arbitrator at first instance and sanctioned to a period of ineligibility of four years. All four athletes, like the Appellant in this case, have appealed the first instance decisions to the CAS. The athletes and the IAAF are represented by the same legal team in all five appeals. For purposes of efficiency and expediency, the five appeals have been run in parallel; albeit there was a separate hearing for one of the appeals before a different panel (which includes two members of this Panel). To be clear, the Panel in this procedure has approached its task solely on the basis of the correspondence, legal arguments, witness evidence and testimony filed in this case and insofar as it is relevant to the Athlete. Any correspondence, legal arguments, witness evidence and testimony filed for the purposes of another procedure has not in any way influenced the Panel's decision in relation to the individual Athlete in this case.

IV. SUBMISSIONS OF THE PARTIES

35. What follows is a concise summary of the legal arguments advanced by the parties on the issues of jurisdiction, admissibility and the merits. This summary is not exhaustive and contains only those arguments the Panel considers necessary to give context to the decision it reaches in each of the sections below in relation to the jurisdiction of the CAS to hear the case, the admissibility of the appeal and the merits of the appeal. For the avoidance of doubt, the Panel has carefully considered all of the written and oral submissions of the parties, including the exhibits and witness testimony.

A. Jurisdiction and Admissibility

36. In her Statement of Appeal and Appeal Brief, the Athlete asserts that the Panel has jurisdiction to decide this case.
37. In contrast, the IAAF argues that the appeal is inadmissible (or in the alternative that the Panel lacks jurisdiction) due to "*the failure*" of the Athlete to "*nominate RUSAF as a mandatory respondent*" in this appeal:
 - a. The basis for CAS jurisdiction at first instance was Rule 38.3 of the IAAF Rules. This expressly requires RUSAF to be included as a respondent to this appeal.
 - b. RUSAF had the authority and responsibility to render the disciplinary decision in relation to the Athlete; the CAS was effectively acting by delegation from RUSAF in operation of the IAAF Rules. The IAAF had no authority under the IAAF Rules to render a decision pertaining to the Athlete.

- c. With respect to “*vertical decisions*”, the entity that rendered, or is responsible for, the challenged decision must be included as a respondent. The requirement to nominate the body with decision-making authority as a respondent also applies where the decision is ultimately taken by a third party by way of delegation.
 - d. In this case, the requirement to include RUSAF as a respondent, even where the Challenged Decision was rendered by the CAS, is expressly stated in Rule 42.18 of the IAAF Rules.
 - e. The Challenged Decision is attributable to RUSAF and not to IAAF.
 - f. The CAS has held that that an arbitration cannot proceed against a respondent in similar circumstances (CAS 2005/A/835).
38. In a letter to the CAS Court Office dated 14 June 2019 and at the hearing, the Athlete argued that the appeal is admissible on the basis that:
- a. In its Request for Arbitration at first instance, the IAAF asserted that RUSAF was not in a position to conduct a hearing and as a result the IAAF had the authority to refer the case to the CAS pursuant to Rule 38.3 of the IAAF Rules. In these circumstances, authority remains with the IAAF and there is no requirement to add RUSAF as a respondent.
 - b. The IAAF Rules provide that – in normal circumstances – a member *may* delegate its authority to IAAF. This is not the case here, where RUSAF’s membership was suspended.
 - c. In CAS 2017/A/4949, a situation identical to that of the Appellant, the IAAF was nominated as the sole respondent in the appeal proceedings. In that case, neither the IAAF nor the CAS panel took issue with RUSAF having no role.

B. Merits

39. By way of this appeal, the Athlete challenges three findings of the Sole Arbitrator in the Challenged Decision:
- a. that the Athlete is guilty of committing ADRVs;
 - b. sanctioning the Athlete to a period of ineligibility of four years as from 1 February 2019; and
 - c. disqualifying the Athlete’s results from 16 July 2012 to 28 July 2015.
40. The Athlete’s submissions on the merits, as set out in her Appeal Brief and presented at the hearing, may be summarised as follows:

(a) The Challenged Decision

- a. There was an “*unjustified disregard of Ms Shkolina’s exonerating evidence*” and the Sole Arbitrator “*essentially reversed the burden of proof, expecting Ms Shkolina to prove that there was no ADRV when it was in fact the IAAF’s burden to prove to a comfortable satisfaction that there was an ADRV*”.

(b) The burden and standard of proof

- b. The Panel must determine whether there is any basis for an ADRV finding specifically in relation to the Athlete. Pursuant to Rule 33.1 of the IAAF Rules, the burden of proof is on IAAF to establish an ADRV “*to the comfortable satisfaction of the relevant hearing panel, bearing in mind the seriousness of the allegation which is made*” (CAS/2004/O/649; CAS 2014/A/3625; CAS/2014/A/3630).
- c. The IAAF must discharge its burden of proof by actively substantiating its allegations with convincing evidence. This must allow the Athlete to substantiate her challenge, or adduce counter evidence (CAS 2016/A/4875; CAS 2016/A/4741; CAS 2016/A/4573; CAS 2013/A/3097).
- d. Rule 33.1 of the IAAF Rules specifies that “*the standard of proof in all cases is greater than a mere balance of probability but less than proof beyond a reasonable doubt*”. Rule 33.3 further states that “*anti-doping rule violations may be established by any reliable means, including but not limited to admissions, evidence of third Persons, witness statements, expert reports, documentary evidence, conclusions drawn from longitudinal profiling and other analytical information*”.
- e. The IAAF has failed to discharge its burden of proof. There is no reliable documentary, witness, or expert evidence that meets the required standard. The Athlete cannot ascertain the provenance and authenticity of the evidence against her and is not in a position to understand the evidence brought against her, let alone counter such evidence.

(c) The evidence against the Athlete

- f. The Athlete is and has always been a clean athlete.
- g. Prof. McLaren acknowledges that his reports do not constitute, and were never intended to constitute, evidence to prove ADRVs against any individual athlete. Sports federations such as FIFA and several CAS panels have reached the conclusion that the McLaren Reports cannot serve as proof of an ADRV by an individual athlete.
- h. There are numerous flaws, or at least limitations, in the McLaren Reports. Prof. McLaren relied almost exclusively on the EDP to conduct his investigation. There were no on-site investigations at the Moscow Laboratory or the Sochi Laboratory and he did not interview any of the individuals mentioned in his reports. Prof. McLaren did an important job in a very short time-frame, but there were a number of things he was not able to verify.

- i. The findings of Prof. McLaren cannot be taken at face value: some of the individuals “*incriminated*” by the McLaren Reports have been cleared of wrongdoing.
- j. The totality of evidence upon which the Sole Arbitrator relied in the Challenged Decision is the purported London Washout Schedules and Moscow Washout Schedules (“Washout Schedules”).

The London Washout Schedules

- k. According to the IAAF, the Athlete committed an ADRV by reference to three entries in the so-called London Washout Schedules. It is unclear who created these documents; it was not Dr. Rodchenkov.
 - (i) Sample 2729686, which appears in EDP0019, allegedly contained “*Desoxymethyltestosterone 2,300,000*”;
 - (ii) Sample 2729483, which appears in EDP0021, allegedly contained “*Desoxymethyltestosterone 300,000*”
 - (iii) Sample 2728713, which appears in EDP0026, simply contained the remark “*tomorrow*”.
- l. All three samples are reported as negative in the ADAMS database, which is the only official and reliable system containing results of athlete testing. The mere fact that Dr. Rodchenkov claims that results were wrongly reported in ADAMS, without further corroboration, cannot constitute sufficient proof of an ADRV. The evidence of Prof. Graham (the Athlete’s doping expert) confirms that the information contained in the London Washout Schedules is not scientifically credible.
- m. The IAAF has not offered any explanation or adduced any evidence which would help the Athlete understand (i) what allegedly happened to her samples after they were tested; (ii) where the samples were stored; (iii) by whom they were analysed; (iv) whether there are any B samples; and (v) why the samples have not been retested. Nor is there any explanation or evidence explaining when, how and under the supervision of whom, the Athlete allegedly took prohibited substances.
- n. Sample 2729483 is recorded to have been collected from a male athlete. The Sole Arbitrator noted this obvious inconsistency in the Challenged Decision but held that the evidentiary value of EDP0021 was not compromised since the sample number, the date of collection, and the substance detected in the Athlete’s sample were all consistent with other evidence and since the substance was decreasing from the 2.3 million in Sample 2729686 five days earlier to 300,000 in this sample. This analysis, however, was not backed by any scientific evidence.
- o. Sample 2728713 does not even suggest that there was any doping.

- p. The Athlete provided a urine sample on 11 August 2012 at the London Olympic Games, which tested negative. This sample was retested on 6 December 2016 with improved methods and again did not show any trace of prohibited substances (in contrast to the re-analysis of other athletes appearing in the London Washout Schedules). The negative Reanalysis Results is sufficient evidence to exonerate the Athlete of the alleged ADRVs.

The Moscow Washout Schedules

- q. The IAAF also relies on the so-called Moscow Washout Schedules (EDP0032) to argue that the Athlete was unofficially tested for prohibited substances on six occasions in July 2013. The information contained in this document is inaccurate and not scientifically credible:
- (i) The Athlete has never provided unofficial samples and the IAAF has produced no evidence to prove otherwise.
 - (ii) The only link between the Athlete and the Moscow Washout Schedules is the fact that her name appears in EDP0032.
 - (iii) There is no record of the circumstances in which the alleged unofficial samples were collected, or of the fact that they have been collected at all. In particular, there is no explanation or evidence as to who collected the alleged unofficial samples; where those samples were collected; how any particular samples can be attributed to the Athlete and who conducted the analysis and how.
 - (iv) There is no evidence that any unofficial samples were obtained from the Athlete. There are no bottles and no witness evidence.
 - (v) The authenticity of this document cannot be determined and its content is unreliable because there are discrepancies in the purported sample testing results in different versions of the Moscow Washout Schedules.
 - (vi) The fact that there are several versions of the Moscow Washout Schedules, with different and inconsistent data for the same alleged washout tests can only lead to the conclusion that these documents have been edited and amended several times and do not reflect true and accurate facts.
 - (vii) Prof. Graham has identified various examples of information that is not scientifically credible in the Moscow Washout Schedules. In particular, Prof. Graham has stated that the washout pace of methasterone in EDP0032 allegedly pertaining to the Athlete is *“not scientifically credible”*. Likewise, if she had such concentrations in urine, her testosterone/epitestosterone (“T/E”) ratio *“should have been extremely high”*, but there is no indication of that in EDP0032.
 - (viii) Some of the dates in the Moscow Washout Schedules were recorded wrongly (23 July 2013 and 30 July 2013 instead of 24 July 2013 and 29 July 2013). This shows

the unreliability of the Moscow Washout Schedules and, more importantly, the information contained therein.

- (ix) No weight should be given to the Moscow Washout Schedules. The IAAF has not provided no explanation or proof as to how the Athlete's name and a number of alleged unofficial samples ended up in these lists and how the accuracy of this information could possibly be verified.

(d) *The authenticity of the EDP documents*

- r. The origin and authenticity of the EDP cannot be verified:
- (i) The Athlete is confronted with an impossible situation: she is wrongly accused and prevented from proving that the EDP documents are not authentic because the IAAF has not adduced the original files. At the hearing, counsel for the Athlete described this as requiring the Athlete to prove a negative fact, which cannot be done.
 - (ii) The origin of these documents "*remains dubious*". It is impossible for the Athlete, or anyone else, "*to verify who created these documents, when and why*". They could easily have been manipulated, without leaving a trace.
 - (iii) Mr. Rundt (the Athlete's IT expert) has determined that the authenticity of the EDP documents cannot be verified in forensic terms. An analysis of the timestamps on the EDP documents show that they were extracted, copied and modified in 2016; the original timestamps "*were not preserved or handled in a forensically sound manner*".
 - (iv) The mere fact that there is no (apparent) sign of forgery does not suffice to prove the authenticity of the EDP documents.
 - (v) There is no evidence as to:
 - who allegedly provided the Athlete with prohibited substances, how and when;
 - when the samples were allegedly taken and by whom;
 - how and when they were allegedly brought to the Moscow Laboratory;
 - by whom they were allegedly received in the Moscow Laboratory;
 - how they were stored and attributed to athletes;
 - by whom, when and, most importantly, how they were allegedly tested at the Moscow Laboratory;
 - who allegedly entered the data into the Washout Schedules; and
 - whether the alleged test results were correctly reported in the Schedules.

- s. At the hearing, counsel for the Athlete submitted that if “*direct evidence*” is available (or could have been made available), “*circumstantial evidence*” can be relied upon, but only to support the evidentiary value of the direct evidence. However, circumstantial evidence cannot be “*used as an excuse not to provide direct evidence*”. If direct evidence is available to the party bearing the burden of proof, circumstantial evidence relied upon by that party should be given very little evidentiary value, if any.

(e) *The evidence of Dr. Rodchenkov*

- t. Dr. Rodchenkov’s evidence is self-serving, inherently unreliable and should be ignored, or at best, afforded very limited weight:
- (i) Dr. Rodchenkov was found to be behind a positive drug test cover-up scheme and requested bribes from athletes for his own financial gain. At first, he denied wrongdoing, but then sought to blame others for his conduct. After he left Russia for the United States, he took the story to the press, and only later to the authorities. Whereas the story was a financial success for Dr. Rodchenkov, his narrative has shifted and changed.
 - (ii) At the hearing, counsel for the Athlete submitted that he is “*not a truthful witness*” and was “*involved in doping schemes*”. Counsel added: “*probably he was involved in some sort of scheme, but can you believe the extent of the scheme? ... Is there proof that [the Athlete] is part of the scheme? No. ... His motive is to protect himself*”.
 - (iii) Other CAS panels have concluded that – if anything – only “*limited weight*” can be given to Dr. Rodchenkov’s testimony (CAS 2017/A/5379). A WADA Independent Commission Report of 9 November 2015 found Dr. Rodchenkov to be an “*obstructive*” individual who is “*not credible*”.
 - (iv) Dr. Rodchenkov’s witness statement does not discuss the evidence against the Athlete and does not address anything relating to this case, apart from a single sentence stating that “*I am aware that [the Athlete] benefitted from the Program and [was] engaged in doping over the course of years*”.
 - (v) At the first instance hearing in this case, Dr. Rodchenkov stated that he had not prepared the London Washout Schedules; never met the Athlete; never given the Athlete take any prohibited substances or witnessed her doing so; and was not involved in the testing of any of the Athlete’s samples.
 - (vi) Large parts of Dr. Rodchenkov’s testimony is uncorroborated hearsay.

(f) *Ineligibility*

- u. In any event, the conditions for increasing the Athlete’s period of ineligibility, pursuant to Rule 40.6 of the IAAF Rules, are not met.

- (i) Rule 40.6 requires aggravating circumstances to be established in each individual case.
 - (ii) There is no evidence that the Athlete used prohibited substances on multiple occasions, nor that she personally participated in an alleged doping scheme.
 - (iii) CAS case law requires “*particularly cogent evidence*” of an athlete’s “*deliberate personal involvement*” in wrongdoing. It must be established that the Athlete “*knowingly engaged*” in the alleged doping scheme (CAS 2017/A/5379).
- v. In the alternative, if the Panel concludes that there is evidence of aggravating circumstances (*quod non*), the period of ineligibility should be reduced to less than the four-year maximum provided for by Rule 40.6. Even in “*severe and well-documented*” ADRV cases, CAS panels have imposed ineligibility periods below four years (CAS 2014/A/3561 and CAS 2014/A/3614; CAS 2014/A/3668). A shorter period of ineligibility is applicable where aggravating circumstances “*are not clearly established*” (CAS 2012/A/2791).

(g) Disqualification

- w. There is no basis for the disqualification of any of the Athlete’s results under Rule 40.8 of the IAAF Rules:
- (i) The purpose of disqualification of competitive results is not to punish athletes, but to correct any unfair advantage and remove tainted performances from the record (CAS 2017/A/5021; CAS 2016/O/4463).
 - (ii) Rule 40.8 contains an “*implicit exception of fairness*” by which the Panel should evaluate the circumstances, including *inter alia* the nature and severity of the infringement, the lapse of time between ADRVs, the presence of negative tests between ADRVs, the effect of the infringement on the results at stake and the absence of subsequent abnormalities or ADRVs.
 - (iii) All of the samples produced by the Athlete (including during competitions attended in 2012-2013) have tested negative.
 - (iv) The Athlete’s results show that she did not draw an unfair advantage from the alleged ADRVs. During heightened periods of anti-doping checks from 2016 onwards, she continued to perform consistently.
- x. In the alternative, the disqualification period should be reduced based on the principles of fairness and proportionality:
- (i) There has been no allegation and no evidence that the Athlete committed any ADRVs beyond 2013.

- (ii) The principle of proportionality calls for a reasonable balance between the misconduct and the measure imposed; “*a measure must not exceed what is reasonably required by its legitimate objective*” (CAS 2015/A/4008).
- (iii) Disqualification should not extend over periods for which there is no clear evidence that the Athlete used prohibitive substances.
- (iv) If a disqualification of results is considered appropriate, the disqualification period should be limited to 16 July 2012 until 17 August 2013.
- (v) The Sole Arbitrator extended the disqualification period beyond 17 August 2013 until 28 July 2015 on the purported basis that the Athlete gained an unfair advantage from increased strength and muscle mass growth. However, CAS panels have recognised that “*even if such everlasting enhancing effects were to exist ... these effects are not to be taken into consideration when applying the sanctions set out by the WADC or the IAAF Rules ...*” (CAS 2017/A/5021).

41. The submissions of the IAAF on the merits, as set out in the Answer and presented at the hearing, may be summarised as follows:

(a) *The context of the case against the Athlete*

- a. Prof. McLaren “*uncovered and described a doping scheme of unprecedented proportions that pervaded and implicated the Russian sporting and governmental authorities including the Ministry of sport, the Moscow Laboratory, RUSADA, the FSB and the CSP*”.
- b. The IAAF does not seek to prove the charges against the Athlete on the basis of the McLaren Reports alone. The charges are based primarily on the EDP, which underpin the McLaren Reports, including the Washout Schedules.

(b) *Establishing the ADRV*

- c. There are two questions for the Panel to answer in determining whether the Athlete has committed an ADRV:
 - (i) Do the relevant EDP documents (*i.e.* the Washout Schedules) constitute reliable evidence within the meaning of Rule 33.3 of the IAAF Rules?
 - (ii) If so, do the relevant EDP documents comfortably satisfy the Panel that the Athlete used prohibited substances?

(c) *Standard of proof*

- d. The Panel can be comfortably satisfied that the Athlete used prohibited substances. Rule 32.3(b) of the IAAF Rules makes clear that it is not necessary to establish intent, negligence, fault or other *mens rea*. The objective fact of the use is sufficient.

- e. Pursuant to Rule 33.3 of the IAAF Rules, the use of prohibited substances can be established by any reliable means.
- f. In a non-analytical case such as this, the Panel “*must consider the global weight of the evidence*”; the various evidentiary elements are “*strands in a cable*” or a “*rope composed of several cords*” rather than “*links in a chain*” (CAS 2015/A/4059; CAS 2018/O/5713).

(d) Reliability of the EDP documents

- g. On the basis of the findings in the McLaren Reports and the IOC Disciplinary Commission’s Report to the IOC Executive Board of 2 December 2017 (the “Schmid Report”), it cannot seriously be questioned that there was a doping scheme and cover-up operation in Russia:
 - (i) This has been found to be so in a significant, and ever increasing, number of CAS Awards (CAS OG 16/09; CAS OG 16/012; CAS 2016/A/4745; CAS OG 18/03; CAS OG 18/02; CAS 2018/O/5666-5668, 5671-5676, 5704 & 5712-5713; CAS 2017/O/5039).
 - (ii) Mr. Alexander Zhukov, the then President of the Russian Olympic Committee, has been quoted in the Schmid Report as stating that “*all organisations and agencies involved are taking necessary steps to prevent it in the future*”.
 - (iii) Likewise, Mr. Vitaly Mutko, a former Russian Sports Minister and Deputy Prime Minister of Russia, has been quoted as stating that: “*Individual officials who worked in different sport organisations and might have been connected to each other, unfortunately violated the anti-doping rules. They were dismissed from office*”.
 - (iv) Mr. Pavel Kolobkov, former Russian Minister of Sport, “*explicitly accepted the findings of the Schmid Report*” in a letter to WADA dated 13 September 2018.
- h. The EDP does not exist in a vacuum. The documents must be considered within the context of the unprecedented doping and anti-detection scheme described in the McLaren Reports and the Schmid Report.
- i. The most relevant EDP documents have been produced “*in their native format*” and “*without any redaction*”. It is clear from the internal metadata, particularly the Washout Schedules, that they were created and worked on at the relevant time in 2012 and 2013.
- j. Taking onto account the broader context and the contemporaneity of the internal metadata, any technical or forensic challenge to the reliability of the Washout Schedules must be specific and compelling.
- k. The evidence of Mr. Rundt is merely a theoretical objection that “*the gold standard of IT forensic practice was not followed*”.

- l. There is no software that would allow anyone to manipulate the relevant data without leaving a trace or forensic artefacts.
- m. Prof. Graham's expert report is flawed; his assumptions and conclusions are wrong. Prof. Ayotte (the IAAF's doping expert) has found that the data in the Washout Schedules is plausible from a scientific perspective.

(e) *The evidence against the Athlete*

- n. The Athlete featured in two separate washout programmes in different calendar years. This is not accidental. The evidence against the Athlete comprises the following:
 - (i) Two of the Athlete's official doping control samples (2729483 and 2729686) which featured in the London Washout Schedules (EPD0019 and EDP0021) contained desoxymethyltestosterone ("DMT"), a "*designer, black-market steroid*". The level drops from 2,300,000 to 300,000 in the five days between both samples. Prof. Ayotte confirms that this is plausible washing out of that substance.
 - (ii) The fact that there is an "*m*" instead of an "*j*" next to sample 2729483 in EDP0021 is "*neither here nor there*". It is undisputed that this sample number pertains to the Athlete.
 - (iii) 2729483 is recorded to have been collected from a male athlete. The Sole Arbitrator noted this obvious inconsistency in the Challenged Decision but held that the evidentiary value of EDP0021
 - (iv) The Athlete appears by name in six separate entries in the Moscow Washout Schedules (EDP0032). The first five samples are all found to contain methasterone, a substance which was prevalent on the Moscow Washout Schedule. This substance is seen to be washing out until the last sample collected at the 2013 Moscow World Championships, which is described as "*clear*". Prof. Ayotte has confirmed that the washout of the substance in the relevant timeframe is plausible.
 - (v) In addition, the Athlete features on the Clean Urine Bank Schedule (EDP0757), which is further evidence that she was part of the Russian "*manipulation scheme*". This was used for the purposes of swapping-in clean urine in the event of a positive doping control.

(f) *London Washout Schedules*

- o. The London Washout Schedules reflect doping that really happened:
 - (i) There are various examples of the London Washout Schedules being attached to contemporaneous emails. The cover emails support the authenticity of the London Washout Schedules.

- (ii) Mr. Sheldon’s analysis (the IAAF’s IT expert) of the EDP documents demonstrates that the London Washout Schedules were worked on by various individuals and “*were then attached to real emails on the same day between real people using their actual email address*”.
- (iii) The London Washout Schedules feature positive samples from four other athletes who, in common with the Athlete, were also found guilty of ADRVs by the CAS at first instance.
- (iv) The London Washout Schedules were corroborated when 13 Russian track and field athletes tested positive for dehydrochlormethyltestosterone (“DHCMT”) when their samples were re-tested after 2013 London Olympic Games. These results were not known to Dr. Rodchenkov at the time he provided the EDP documents to authorities in the United States. Ten of those 13 athletes appear in the London Washout Schedules with indications that their samples contained DHCMT.
- (v) Dr. Rodchenkov confirms that the London Washout Schedules are real contemporaneous documents of which he has first-hand knowledge.

(g) Moscow Washout Schedules

- p. The Moscow Washout Schedules also reflect doping that really happened:
 - (i) Mr. Sheldon has determined that the Moscow Washout Schedules were copied and amended over time. The fact that there are different versions of the Moscow Washout Schedules attests to their reliability rather than being an indication of fabrication.
 - (ii) Of the approximately 20 athletes that feature in the Moscow Washout Schedules, no fewer than eight have been found guilty of ADRVs unrelated to the McLaren Reports or the EDP.
 - (iii) Like the London Washout Schedules, the Moscow Washout Schedules are corroborated by other documents and events. For instance, the unofficial sample collected from an athlete on 10 July 2013 (not the Appellant) is stated in the Moscow Washout Schedules to contain “*Oxandrolone 8 ng/mL, Testosterone 0.3 ng/mL*”. That athlete was subjected to an official test the next day, which was found to contain oxandrolone.
 - (iv) Dr. Rodchenkov states that the Moscow Washout Schedules are real contemporaneous documents of which he has first-hand knowledge.

(h) Clean Urine Bank

- q. There are contextual and other elements which confirm that the Clean Urine Bank Schedules are real, contemporaneous and can be relied upon. EDP0757 was created on 27 April 2015, last modified on 30 April 2015 and sent as an attachment to an email of 30 April 2015 from Dr. Tim Sobolevsky to Liaison Person Aleksey Velikodny. Mr. Sheldon has found that email to be authentic.
- r. The EDP contains email correspondence, which shows the Clean Urine Bank Schedules in action: in correspondence from May and June 2015, the Moscow Laboratory and Mr. Velikodny discuss which sample from the Clean Urine Bank to swap for sample 3880014; the two clean samples that are proposed have codes X006 and GG8053, which can be found on Urine Bank Schedules EDP0757 and EDP0736 respectively.

(i) EDP emails

- s. The emails forming part of the EDP are real, contemporaneous documents and can be relied on:
 - (i) The EDP comprises more than 1,000 pages of emails. The “*sheer bulk*” of those emails and “*the level of detail in them*” is not consistent with fabrication. The hundreds of pages of emails relate to different sports, with detailed references to time and place of sample collection, sample code and laboratory codes.
 - (ii) The emails were sent to *inter alia* Mr. Velikodny and Natalia Zhelanova; email address can be publicly linked to these persons. Neither has ever come forward to state that they did not receive these emails, or that the content has been modified.
 - (iii) The content of the emails is borne out by reality: in one email Dr. Rodchenkov refuses to “*SAVE*” three athletes (none of whom are the Appellant) and states that they are “*corpses that can’t be revived*”. All three were in fact found guilty of ADRVs in respect of those positive samples.
 - (iv) Mr. Sheldon analysed 11 emails and noted that all the “*hops*” indicated in the headers “*corresponded to what one would expect to see*”. Mr. Sheldon has also stated that four emails are authentic on the basis of the Domain Keys Identified Mail (“DKIM”) signatures.

(j) Consequences

- t. There are a number of aggravating factors in this case:
 - (i) The Athlete used a range of exogenous anabolic steroids on multiple occasions.
 - (ii) The Athlete featured in two washout programs the purpose of which was to protect athletes known to be doping. She provided unofficial samples and those of her

official samples that did test positive for prohibited substances were “*SAVED*” (*i.e.* falsely reported as being clean).

- (iii) The unofficial washout testing was carried out in the run up to the most important athletics events (*i.e.* the Olympic Games and the World Championships).
- u. In these circumstances the only appropriate period of ineligibility is the maximum of four years.
- v. The Panel should not interfere lightly with a well-reasoned first instance decision (CAS 2010/A/2283; CAS 2011/A/2518).
- w. There is no reason to interfere with the period of ineligibility in the Challenged Decision. It would have been open to the Sole Arbitrator to disqualify all results from 2012 onwards.

C. Requests for Relief

42. In her Appeal Brief, the Athlete requests the Panel to:

- “(1) *Annul the CAS 2018/O/5667 award dated 1 February 2019.*
- (2) *Declare that Ms Svetlana Shkolina is not guilty of any anti-doping rule violation under the 2012 IAAF Competition Rules.*
- (3) *Declare that no period of ineligibility is imposed on Ms Shkolina.*
- (4) *In the alternative, substantially reduce the ineligibility period imposed on Ms Shkolina.*
- (5) *Declare that none of Ms Shkolina’s results are disqualified.*
- (6) *In the alternative, substantially reduce the disqualification period of Ms Shkolina’s results to 16 July 2012 until 17 August 2013.*
- (7) *Order the IAAF to bear the costs of the arbitration at the first instance and in these appeal proceedings.*
- (8) *Order the IAAF to compensate Ms Svetlana Shkolina for the legal fees and other expenses incurred in the first instance proceedings and in these appeal proceedings.*
- (9) *Order any other relief that the Panel deems just and proper”.*

43. In its Answer, IAAF requests the Panel:

- “(i) *To rule that the appeal is inadmissible or, in the alternative, that CAS does not have jurisdiction.*
- (ii) *On a subsidiary basis and in the event that CAS holds that the appeal is admissible and that it does have jurisdiction, the appeal is dismissed.*
- (iii) *The arbitration costs are borne entirely by Ms. Shkolina.*
- (iv) *Ms. Shkolina shall be ordered to contribute to the IAAF’s legal and other costs”.*

V. APPLICABLE LAW

44. Article R58 of the Code provides that:

“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 that the Panel deems appropriate. In the latter case, the Panel shall give reasons for its decision”.

45. Rule 21.3 of the 2019 IAAF Anti-Doping Rules, which were in force at the time the Athlete filed her Statement of Appeal in this procedure, states that:

*“Any case pending prior to [1 January 2019], or brought after [1 January 2019] but based on an Anti-Doping Rule Violation that occurred before [1 January 2019], shall be governed, with respect to substantive matters, by the predecessor version of the anti-doping rules in force at the time the Anti-Doping Rule Violation occurred and, with respect to procedural matters by (i) for Anti-Doping Rule Violations committed on or after 3 April 2017, these Anti-Doping Rules and (ii) for Anti-Doping Rule Violations committed prior to 3 April 2017, the 2016-2017 IAAF Competition Rules. Notwithstanding the foregoing, ... the relevant tribunal may decide it appropriate to apply the principle of *lex mitior* in the circumstances of the case”.*

46. It follows from Rule 21.3, and it is agreed by the parties, that the 2012 version of the IAAF Rules (the “2012 IAAF Rules”) apply to “substantive matters”, whereas for “procedural matters”, the 2016 version of the IAAF rules are applicable (the “2016 IAAF Rules”).

47. In relation to the procedure to be adopted by the Panel, Rules 42.22 to 42.26 of the 2016 IAAF Rules provide that:

“22. All appeals before CAS shall take the form of a re-hearing and the CAS Panel shall be able to substitute its decision for the decision of the relevant tribunal of the Member or the IAAF where it considers the decision of the relevant tribunal of the Member or the IAAF to be erroneous or procedurally unsound. The CAS Panel may in any case add to or increase the Consequences that were imposed in the contested decision.

23. In all CAS appeals involving the IAAF, CAS and the CAS Panel shall be bound by the IAAF Constitution, Rules and Regulations (including the Anti-Doping Regulations). In the case of any conflict between the CAS rules currently in force and the IAAF Constitution, Rules and Regulations, the IAAF Constitution, Rules and Regulations shall take precedence.

24. In all CAS appeals involving the IAAF, the governing law shall be Monegasque law and the arbitrations shall be conducted in English, unless the parties agree otherwise.

25. The CAS Panel may in appropriate cases award a party its costs, or a contribution to its costs, incurred in the CAS appeal.

26. *The decision of CAS shall be final and binding on all parties, and on all Members, and no right of appeal will lie from the CAS decision. The CAS decision shall have immediate effect and all Members shall take all necessary action to ensure that it is effective”.*

48. Rules 60.24 to 60.25 of the 2016 IAAF Rules state that:

“24. *In all CAS appeals involving the IAAF, CAS and the CAS Panel shall be bound by the IAAF Constitution, Rules and Regulations. In the case of any conflict between the CAS rules currently in force and the IAAF Constitution, Rules and Regulations, the IAAF Constitution, Rules and Regulations shall take precedence.*

25. *Monegasque law and the arbitrations shall be conducted in English, unless the parties agree otherwise”.*

49. In relation to matters of substance, pursuant to Rule 33.1 of the 2012 IAAF Rules, the burden of proof is on IAAF to establish an ADRV “*to the comfortable satisfaction*” of the Panel “*bearing in mind the seriousness of the allegation which is made*”. The applicable standard of proof is “*greater than a mere balance of probability but less than proof beyond a reasonable doubt*”.

VI. JURISDICTION OF THE CAS

50. The Panel’s jurisdiction to hear this appeal stems from Rules 38.3 and 42 of the 2016 IAAF Rules and Article R47 of the Code.

51. Article R47 of the Code provides that:

“*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 it prior to the appeal, in accordance with the statutes or regulations of that body”.*

52. Rule 38.3 of the 2016 Rules provides that:

“*If a hearing is requested by an Athlete, it shall be convened without delay and the hearing completed within two months of the date of notification of the Athlete’s request to the Member. Members shall keep the IAAF fully informed as to the status of all cases pending hearing and of all hearing dates as soon as they are fixed. The IAAF shall have the right to attend all hearings as an observer. However, the IAAF’s attendance at a hearing, or any other involvement in a case, shall not affect its right to appeal the Member’s decision to CAS pursuant to Rule 42. If the Member fails to complete a hearing within two months, or, if having completed a hearing, fails to render a decision within a reasonable time period thereafter, the IAAF may impose a deadline for such event. If in either case the deadline is not met, the IAAF may elect, if the Athlete is an international-level Athlete, to have the case referred directly to a single arbitrator appointed by CAS. The case shall be handled in accordance with CAS rules (those applicable to the appeal arbitration procedure without reference to any time limit for appeal). The hearing shall proceed at the responsibility and expense of the Member and the decision of the single arbitrator shall be subject to appeal to CAS in accordance with Rule 42. A failure by a Member to hold a hearing for*

an Athlete within two months under this Rule may further result in the imposition of a sanction under Rule 45”.

53. As a result of the suspension of RUSAF’s membership, the IAAF opted to refer this case to the CAS to be heard at first instance by a Sole Arbitrator. On 31 January 2019, the Sole Arbitrator delivered the Challenged Decision.
54. Rule 42.1 of the 2016 IAAF Rules provides that *“all decisions made under these Anti-Doping Rules may be appealed”* unless stated otherwise. Rule 42.2 adds that *“decisions regarding anti-doping rule violations and consequences may be appealed”*. Moreover, Rule 42.15 expressly recognises the right of an athlete to file a statement of appeal with the CAS.
55. On the basis of Article R47 of the Code, Rules 38.3 and 42 of the 2016 IAAF Rules, and the common position adopted by the parties, the Panel determines that the CAS has jurisdiction to decide the present appeal.

VII. ADMISSIBILITY

56. Rule 42.15 of the 2016 IAAF Rules provides that:

“Unless stated otherwise in these Rules (or the Doping Review Board determines otherwise in cases where the IAAF is the prospective appellant), the appellant shall have forty-five (45) days in which to file his statement of appeal with CAS, such period starting from the day after the date of receipt of the decision to be appealed (or where the IAAF is the prospective appellant, from the day after the date of receipt of both the decision to be appealed and the complete file relating to the decision, in English or French) or from the day after the last day on which the decision could have been appealed to the national level appeal body in accordance with Rule 42.8(b). Within fifteen days of the deadline for filing the statement of appeal, the appellant shall file his appeal brief with CAS and, within thirty days of receipt of the appeal brief, the respondent shall file his answer with CAS”.

57. The Challenged Decision was rendered on 1 February 2019.
58. The Athlete filed her Statement of Appeal with the CAS on 22 February 2019, within the time limit prescribed by Rule 42.15 of the 2016 IAAF Rules.
59. The Athlete filed her Appeal Brief on 2 April 2019, within the time limit prescribed by Rule 42.15 of the 2016 IAAF Rules.
60. The Panel considers that the Respondent’s argument, based on the non-participation of RUSAF in these proceedings, is properly characterised as a challenge to the admissibility of the appeal.
61. There is no doubt that the Athlete has standing to bring this appeal. Rule 42.5(a) of the 2016 IAAF Rules provides that an International-Level Athlete is entitled to appeal a decision in relation to which he or she is the subject to the CAS. The IAAF’s challenge pertains to the nomination of the respondent(s).

62. It is recalled that Rule 38.3 of the 2016 IAAF Rules expressly recognises that IAAF may, in some circumstances, refer a case directly to CAS for determination at first instance by a Sole Arbitrator. Rule 38.5 of the 2016 IAAF Rules further provides that:

“The Athlete’s hearing shall take place before the relevant tribunal constituted or otherwise authorised by the Member. Where a Member delegates the conduct of a hearing to any body, committee or tribunal (whether within or outside the Member), or where for any other reason, any national body, committee or tribunal outside of the Member is responsible for affording an Athlete his hearing under these Rules, the decision of that body, committee or tribunal shall be deemed, for the purposes of Rule 42, to be the decision of the Member and the word ‘Member’ in such Rule shall be so construed”.

63. The Panel notes that in the Notice of Arbitration at first instance, IAAF asserted that:

“24. The suspension of RUSAF’s membership of the IAAF was confirmed on the occasion of the IAAF Council meeting in Monaco on 26 November 2015. On 17 June 2016, 1 December 2016, 6 February 2017, 2 July 2017 and 31 July 2017, the IAAF Council decided that RUSAF had not met the conditions for reinstatement to membership and the IAAF Congress maintained the suspension of RUSAF at its meeting on 3 August 2017. On 26 November 2017, and more recently on 6 March 2018, the IAAF Council decided that RUSAF had not met the conditions for reinstatement to membership. The suspension of RUSAF therefore remains in place.

25. As a consequence of the suspension of its membership, RUSAF was (and is) not in a position to conduct the hearing process of the Athlete’s case by way of delegated authority from the IAAF pursuant to Rule 38 of the IAAF Competition Rules.

26. Consequently, RUSAF is not in a position to convene (still less to complete) a hearing within the two month time period set out in Rule 38.3 of the 2016 IAAF Competition Rules. In the circumstances – i.e. the impossibility of RUSAF to conduct a hearing process on behalf of the IAAF – it is plainly not necessary for the IAAF to impose any deadline on RUSAF for that purpose.

27. In view of the inability of RUSAF to conduct a hearing process within the requisite timeframe and the Athlete’s status as an International-Level Athlete, the IAAF is entitled pursuant to Rule 38.3 of the 2016 IAAF Competition Rules to refer the case of the Athlete to the CAS to be heard in the first instance by a Sole Arbitrator ...”⁵.

64. It is on this basis that, on 6 April 2018, the IAAF filed its Request for Arbitration to the CAS against RUSAF (as first respondent) and the Athlete (as second respondent).

65. The IAAF now relies on various CAS decisions, academic commentary and Rule 42.18 of the 2016 IAAF Rules to the effect that: because the Athlete has failed to nominate RUSAF as a respondent in this appeal, it is inadmissible.

³ Footnotes omitted.

66. Rule 42.18 of the 2016 IAAF Rules expressly addresses the question of “*Respondents to the CAS Appeal*” as follows:

“As a general rule, the respondent to a CAS appeal shall be the party which has taken the decision that is subject to appeal. Where the Member has delegated the conduct of a hearing under these Rules to another body, committee or tribunal in accordance with Rule 38.5, the respondent to the CAS appeal against such decision shall be the member”.

67. Two observations may be made in relation to Rule 42.18. First, the opening four words (“*As a general rule*”) are indicative that this provision does not lay down conditions that are mandatory in every case and in all circumstances. Second, the requirement in the second sentence that an appeal must be brought against “*the member*” is expressly limited to circumstances where that member “*has delegated the conduct of a hearing ... in accordance with Rule 38.5*”.
68. It is acknowledged in the Notice of Arbitration at first instance that the IAAF considered itself “*entitled*” to pursue the matter because of the “*impossibility*” of RUSAF conducting a hearing. The Panel determines that the circumstances which led to the IAAF referring the Athlete’s case to the CAS cannot properly be described as a ‘delegation’ within the meaning of Rule 38.5. Moreover, the Panel is not persuaded that the judicial and scholarly authorities upon which IAAF relies are applicable to the circumstances of this case, in particular where RUSAF was plainly not in a position to bring proceedings against the Athlete. The Panel cannot ignore the fact that the IAAF’s interpretation of the 2016 IAAF Rules would have the effect of depriving an athlete of the right to appeal merely as a result of a national association ceasing to be a member of the IAAF (for any reason). Such an interpretation is not tenable and does violence to the language of Rules 38.3, 38.5 and 42.18 of the 2016 IAAF Rules. For these reasons, the Panel holds that there is no mandatory rule requiring the Athlete to bring this appeal against RUSAF.
69. Having rejected IAAF’s challenge in relation to the nomination of RUSAF as a respondent, the Panel is satisfied, without any doubt, that the present appeal is admissible.

VIII. EVIDENCE OF THE PARTIES

A. Evidence relied on by the Athlete

(a) *Ms. Svetlana Shkolina (the Athlete)*

(1) *Witness statement*

70. In her witness statement dated 29 March 2019, the Athlete states that she started high jumping at the age of nine. Since becoming a professional athlete in 2003, she has had a very successful career, winning medals at national and international events. Throughout her career, she has undergone numerous doping tests in Russia and abroad and has never tested positive. The Athlete states that she has never taken any prohibited substances, including DMT and methasterone as alleged by the IAAF.

71. The Athlete states that she was shocked when she found out that the IAAF initiated an investigation and charged her with several ADRVs. She rejects all the allegations made by the IAAF, including that she is a “*protected athlete*”, that she was included in a “*doping program*”, and that her ‘dirty’ urine samples were automatically reported as negative on ADAMS. She states that she spent over a quarter of 2012 and almost 20% of 2013 outside Russia, “*where foreign doping control officers could approach me at any time*”.
 72. The Athlete also states that in July 2012, she was requested to provide three urine samples for doping control: sample 2729686 was collected on 16 July 2012, sample 2729483 was collected on 21 July 2012 and sample 2728713 was collected on 31 July 2012. All of these were regular official urine tests and the negative results were registered in ADAMS.
 73. The Athlete points to various mistakes in the documents, including that EDP0021 indicates that sample 2729483 was provided by a male athlete.
 74. Specifically in relation to the Moscow Washout Schedules, the Athlete states that she has never provided a urine sample in a non-official container. She won the gold medal at the women’s high jump event at the 2013 Moscow World Championships and was tested in competition (sample 2808655). This produced a negative result and was recorded as such in ADAMS.
 75. The Athlete also challenges the entries in EDP0032 on the basis that she provided official urine samples on 24, 26 and 29 July, which all tested negative. These three dates fall within the period during which she had allegedly tested positive for methasterone according to EDP0032.
- (2) *Examination-in-chief*
76. The Athlete gave live oral evidence at the hearing by videoconference, assisted by a translator. She confirmed the content of her witness statement. The Athlete said that she dedicated most of her adult life to professional sport and that “*this is my entire life*”. She stated that she was tested more than 100 times and never tested positive for any prohibited substances. She also said that she was never asked or instructed to take a prohibited substance, never provided urine outside an official test and never met Dr. Rodchenkov.
- (3) *Cross-examination*
77. Counsel for the IAAF did not put any questions to Athlete, relying instead on the Athlete’s testimony at first instance.
- (4) *Closing statement*
78. In her closing statement, the Athlete said that she could not have given more than she had. She reiterated that the samples taken from her at the 2012 London Olympic Games and the 2013 Moscow Word Championships tested negative and were recorded as such in ADAMS. There is also evidence from Prof. Champod that the sample taken from her at the 2013 Moscow

World Championships was not interfered with. She said that throughout her career, her performance has increased gradually.

(b) Mr. Manuel Rundt

(1) Expert report

79. Mr. Rundt is an IT forensics and security expert. He is the author of an expert report dated 1 April 2019, submitted by the Appellant. Mr. Rundt and the IAAF’s IT expert (Mr. Sheldon) were both given access to the same 35 EDP documents for analysis, comprising 11 emails and 24 Microsoft Office files.

80. In his report, Mr. Rundt sets out three core principles which, according to him, constitute the “*main forensic best practices*”. These are:

- a. *“Authenticity of evidence can only be established by a complete and gapless chain of custody and a strong documentation of the evidence preservation/ collection process”⁴.*
- b. Digital evidence must be preserved without any alterations or loss of information. This is done by creating “*so called forensic images of the original evidence and by a write-blocking software, by creating hash values of the original evidence and by a thorough documentation that prove the forensic soundness of the evidence collection and handling process by the forensic experts*”⁵. This allows evidence to be authenticated so that it may be “*traced back to the original pristine data and dated back to that moment in time*”.
- c. Any alteration “*might render it useless and cast doubts on the evidence*”. All alterations must be properly documented and explained.

81. Mr. Rundt states that the most important principle is “*a complete and gapless chain of custody*”. Proof of authenticity can be carried out by “*comparing the hash values of the evidence received to the hash values of the original evidence*”. If the hash values are the same as the original evidence, it can be proved that the evidence has not been tampered with and no alterations have been made. External metadata can be edited or removed with very rudimentary knowledge of IT. In general, internal metadata will only be updated if a document is saved after modification. The internal metadata timestamps of Microsoft Office documents “*can be forged very easily without leaving any forensic traces*”. This can be as easy as setting back the clock in a computer system, resulting in falsified timestamps. This type of modification would leave “*absolutely no detectable traces within the internal metadata of the office document itself and will be indistinguishable from any genuine document*” and the only proof of manipulation would be found on the computer itself, not in the office document file. If provided only with an internal metadata timestamp, with nothing else to correlate it to, “*one simply cannot make any forensically sound assumptions on the validity of this timestamp and of the authenticity of the document*”.

⁴ Footnote omitted.

⁵ Footnote omitted.

82. In his report, Mr. Rundt states that verifying the authenticity of EDP documents would require linking back to the first forensic evidence preservation of the original device containing the documents. This is usually done by comparing hash values. *“If the hash value of the exported document matches the original document (i.e. the document as preserved during the first forensic evidence preservation), you can be highly certain that the evidence has not been tampered with in the meantime”*⁶. Authenticity in a forensic sense only means that it is an original copy of the evidence as initially preserved and has not been manipulated since first preservation; it does not mean that the document itself is genuine, or that its content is true.
83. Mr. Rundt conducted an analysis of 35 EDP documents. He notes that he was not provided with a forensic image of the original digital evidence, *“only a zip file containing a bundle of loose files ...”*. He also states that he did not receive *“any lists with hash values for the EDP documents relating to the original digital evidence”* or *“any documentation regarding the digital evidence preservation process, the forensic processing or the chain of custody for any part of the digital evidence”*. Mr. Rundt states that, as a result, he did not have the data necessary to establish the authenticity of the EDP documents and that *“[n]o forensic expert can make any valid assessment on the creation dates and the authenticity of these documents”*. Any assumptions in relation to these matters would be *“forensically unsound and misleading”*.
84. Mr. Rundt states that of the 24 (non-email) EDP documents he analysed, 9 have a *“modified”* timestamp in the file system of 9 April 2016, between 17:20:48 and 17:29:33 UTC (coordinated universal time). Twenty documents had a *“created”* timestamp in the file system of 9 November 2016, between 16:43:08 UTC to 16:43:10 UTC. According to Mr. Rundt, this is indicative that the documents may have been *“extracted by someone or some (forensic) process”* on 9 April 2016 and were then *“copied over to another directory or drive”* on 9 November 2016. This would explain why some of the *“created”* timestamps are dated after the *“modified”* timestamp in the file system. This means that the evidence was not handled in a *“forensically sound manner”* because the original file system timestamps were not preserved during the process and replaced with timestamps dated 9 April 2016. In addition, the copying process on 9 November 2016 was *“forensically not sound”* because it destroyed the original *“created”* timestamps in the file system and replaced them with the time of the copy process. Mr. Rundt concludes that:

“Therefore we can conclude that the evidence presented to us has not been handled in a forensically sound manner. This also means that the authenticity of the evidence cannot be established by means of a timestamp analysis, as crucial forensic evidence has been destroyed due to the improper handling of the evidence ... These inconsistencies in the timestamps have severe forensic implications and make it virtually impossible to make any assessment on the creation dates or the authenticity of the documents”.

85. In relation to the 11 emails analysed by Mr. Rundt, he states that:

“... there are some emails supposedly from Tim Sobolevsky that do not contain any transportation headers, except for the primary ‘received’ header that claims that this message was received via HTTP by the Gmail server or that they were delivered by EMSTP. All 11 email messages contain either headers that state the mail was delivered to Tim Sobolevsky’s inbox or the ‘received’ headers show that the last

⁶ Footnote omitted.

hop was always a Google mail server. Had they been extracted from the mailbox of Dr. Grigory Rodchenkov at Yandex, they would show multiple 'received' headers including the received headers of yandex.ru, where Dr. Grigory Rodchenkov's mailbox is located. It is therefore unclear how those messages came into the possession of Dr. Grigory Rodchenkov. This issue has not been addressed and explained to us. This information is crucial for the assessment of the authenticity of those emails. Since emails can be forged easily, the emails' source and the documentation of the forensic evidence preservation process regarding these emails is essential for their evidentiary value".

86. Mr. Rundt's report concludes by noting that: *"As there is no explanation on where the documents and emails came from and how they got there, all the documents provided must be considered as questionable. No forensic sound conclusion as to their authenticity can be made".* The digital evidence *"cannot be traced back to the original evidence or to a pristine evidence preservation"* and *"does not meet the standards set out by the forensic best practices established within the IT forensic community"*.

(2) *Examination-in-chief*

87. Mr. Rundt gave live oral evidence at the hearing by videoconference. During examination-in-chief, he said that, in his opinion, it was not possible to say that the core principles of forensic best practices have been complied with in relation to the 35 EDP documents he reviewed. He added that he did not have any information on where the documents came from, or why those 35 documents were selected for expert processing.

88. Mr. Rundt said that his report showed that internal metadata *"does not necessarily reflect the creation date of a Microsoft Office document ..."*. He added that *"the file system metadata has mostly been lost"*. Mr. Rundt also said that tools exist to modify internal metadata but these would normally leave a trace. He stated that there is a very easy way to alter metadata:

"You could, for example, just set back the clock of your computer and then create a new file, edit, add content to it, save it, then change the clock to another different timestamp, edit the file again, save it, and then you will actually have a 'creation date' and 'last modification date' of the times that you set your computer to, and if you use Excel you will not find any difference between a genuine file created two years ago, or 10 years ago, and this file that you just ... forged".

89. Mr. Rundt stated that you could resort to *"scripting"* to automate this process. He added you could have a *"background noise of 1,000 documents"* and *"just stick in 10 or 20 documents that are actually forged"*. He clarified that *"I am not saying this happened, the point is, we don't know if it happened and we have no information to verify if this happened or didn't happen"*.

90. Asked about Mr. Sheldon's evidence, Mr. Rundt reiterated that, in his opinion, it would be very easy to forge emails that do not have a DKIM signature.

(3) *Cross-examination*

91. In response to questions by counsel for the IAAF, Mr. Rundt said that he had not uncovered any evidence of manipulation or forgery in any of the emails he analysed, but there is no evidence that they are genuine. He confirmed that he had reviewed all the digital signatures,

including “all the message IDs, DKIM signatures, the ‘hops’ through the various servers ... whether the IP addresses are real ...”. Mr. Rundt said that four of the emails (EDP0148, EDP0278, EDP0279 and EDP0434) had a DKIM signature but the other seven emails had no cryptographically signed signature and were just “plain text files” (EDP0276, EDP432, EPD0756, EDP1167, EDP1169, EDP1172 and EDP1182).

92. Counsel for the IAAF asked whether, assuming that an email was sent in 2012 which is “genuine, un-manipulated, un-fabricated” and had a Microsoft Excel file attached to it, could it be assumed that the Excel document existed at the time the email was sent. Mr. Rundt answered:

“Yes but ... we need to question this assumption ... if the assumption is real ... yes is the obvious answer. But if it was forged later on, I am not saying it happened but it could have happened, we cannot rule this out, we cannot be so sure it is genuine. We can for those four emails with a DKIM signature because ... the server sending that email will cryptographically sign the message and this message will have a timestamp and the message will also ... the body and the recipient and other fields will be actually cryptographically signed, so we can be sure this email has actually been sent in 2012 because for normal people it would not be possible to forge such a signature”.

93. In contrast, Mr. Rundt said that for those emails without a DKIM signature “we cannot really be sure if they are genuine or not”.

94. Pressed on whether he was suggesting that it is realistic that someone could forge the “significant body of emails” in the EDP without leaving any trace whatsoever, Mr. Rundt said: “well you could forge it of course, I could do it, but I couldn’t forge any of those DKIM signatures”. Mr. Rundt added that of the 11 emails he reviewed, none of the ones with attachments had “server hops”. Counsel put to Mr. Rundt that these emails have a message-ID which includes a Google-encoded reference to the date and time the email was sent. Mr. Rundt said that they “probably” could be forged and “I cannot give you a positive assurance ... they can be as likely forged as they can be real. I cannot tell ...”.

(4) *Questions from the Panel*

95. Prompted by a member of the Panel, Mr. Rundt added that for the seven emails that are “just plain text files without any cryptographic signature like a DKIM signature” (EDP0276, EDP432, EPD0756, EDP1167, EDP1169, EDP1172 and EDP1182) it would be “technically possible” to produce or create them. He said that:

“If you can decode the Gmail timestamps, you can also encode them as a professional or an expert ... you can just take your computer and just create one ... I am not saying this happened ... I am not saying they are all forged, I am just saying we simply don’t know, we don’t have enough information to actually say they are genuine and we don’t have any information that they are forged, so we cannot say if they are genuine or not ...”.

96. Asked by the President of the Panel about the likelihood of all the EDP emails being falsified, Mr Rundt said: “I only received 11 emails, so I don’t know about the mass of emails. I have never seen any of the other emails”.

97. Mr. Rundt also testified that apart from “*backdating the system clock*” he is not aware of any tool that would allow someone to “*manipulate the internal metadata of a document without leaving a trace*”. He said that such tools may exist but he did not know of any.

(c) Prof. Michael Graham

(1) Expert report

98. Prof. Graham describes himself as a chartered forensic scientist and states that he has contributed to national and international research as well as making representations in medico-legal court cases involving the use of anabolic-androgenic steroids. He produced an expert report dated 2 April 2019 which was submitted by the Athlete.

99. Prof. Graham states that DMT and methasterone are both anabolic-androgenic steroids (“AAS”) which have been “*prohibited in sport since 2004*”. AAS are a group of synthetic compounds that are similar in chemical structure to the natural anabolic steroid testosterone. The “*duration of action*” of these substances is known as its half-life; the elimination half-life is the period of time required for the concentration amount in the body to be reduced by one-half in blood plasma and excreted. Prof. Graham gives the following opinion on the half-life of the two substances alleged to have been taken by the Athlete:

“Desoxymethyltestosterone (DMT) metabolites can be detected for 14 days after administration of these anabolic steroids compared to 5-7 days for previously reported metabolites. Originally DMT was detectable for 5-7 days from 2005. From 2005-2012 it was detectable for 14 days. After January 2013, it was detectable for longer.

Methasterone has an elimination half-life of 12 hours. Following a single oral dose of methasterone 40 mg, metabolites can be detected for up to 10 days and subsequently up to 13 days”⁷.

100. In relation to the London Washout Schedules (EDP0019, EDP0021 and EDP0026), Prof. Graham states that the information and data purportedly relating to the Athlete is “*scientifically unsound*”. He states that:

“First, the rate at which the DMT allegedly washed out is not scientifically plausible. It is indeed not scientifically possible for DMT levels to reduce from 230 ng/ml (2,300,000 units) to 30 ng/ml (300,000 units) in just 5 days. Sobolevsky and Rodchenkov (2012) state that metabolites can be detected for 14 days after administration of these anabolic steroids compared to 5-7 days for previously reported metabolites.

Second, there is no information on the T/E ratio of Ms Shkolina. If an athlete is supposed to be doping with AAS, his or her T/E ratio should be high. In the present case, the T/E ratio of Ms Shkolina would have been very high with a urine level of 230 ng/ml of DMT.

Taken alone or together, these elements cast various serious doubts on the reliability of these Schedules”⁸.

⁷ Footnote and references omitted.

⁸ References omitted.

101. As to the Moscow Washout Schedules (EDP0032), Prof. Graham comes to same view (*i.e.* that the data is “*scientifically unsound*”) on the basis that the washout pace of methasterone and the level and variation of the T/E ratio are “*not credible*”. Prof. Graham states that:

“The washout pace of methasterone cannot wash out from 870 ng/ml (8,700,000 units) on 28 June 2013 to 60 ng/ml (600,000 units) on 6 July 2013 (8 days) and then to 4 ng/ml (40,000 units) on 17 July 2013 (11 days), and then remain at 2 ng/ml (20,000 units) on 2 separate dates on 23 July 2013 and 30 July 2013 one week (7 days) apart. The washout rate does not show an exponential pharmacokinetic decay.

Furthermore, if Ms Shkolina had such concentrations of AAS in her urine on 28 June 2013, her T/E ratio should have been extremely high. There is no such indication in the Schedules. Similarly, the indication that her T/E ratio was only 0.8 on 17 July 2013 is not credible. In fact, an elevated T/E ratio (above 4, which is one of the indicators that may trigger an IRMS confirming the presence of exogenous steroids) would have remained during at least 4-6 weeks.

It emerges from the above that the AAS washout rates indicated in the Moscow Washout Schedules are not scientifically credible and could never occur in this short space of time. These elements confirm the scientific unreliability of the Moscow Washout Schedules”.

(2) *Examination-in-chief*

102. Prof. Graham gave live oral evidence at the hearing by videoconference. At the outset, he corrected some inaccuracies in his CV and made the following correction in relation to his report: “*with respect to trenbolone, I have made a statement that the washout period was a specific period of time, that is subsequently on review of the literature incorrect and my citations are also incorrect in respect to trenbolone*”. Asked whether he had made any assumptions which may not be clear from his report, Prof. Graham said:

“Yes. I made an assumption that if the allegation that an individual was in a systematic washout regime or schedule that if they took a specific dose of an ... AAS to minimise risk that the dosage they took, which is unknown and the date at which they took it is unknown, I made an assumption that the last date they took it was more than likely around or just before the first assessment or analysis of the urine. And so on that assumption, that following an analysis there would not be any more ... alleged taking of drugs by an athlete”.

103. Asked if it is possible to make a “*reliable statement*” based on the information in the Washout Schedules, Prof. Graham said:

“Looking at some of the pharmacokinetic excretion of alleged product, they don’t follow classical pharmacokinetic or pharmacodynamic decrements or depreciation, but some of them do follow normal kinetic delay. Some of them are straight-line graphs; some of them would be a normal expectation. A straight-line graph wouldn’t be expected and look as though they are fabricated. The normal excretion

⁹ References omitted.

would be maximum excretion at first instance with diminution at a later date ... without all the ... underlying data I cannot make an absolute statement of fact”.

104. Prof. Graham added that: “*assuming that an individual might be taking products within a specified cut-off period and the dosages are unknown, anything really is plausible so all the schedules could be plausible or they could all be implausible*”.

(3) *Cross-examination*

105. Counsel for the IAAF asked Prof. Graham whether he had withdrawn the ultimate conclusion reached in his report that the data in the Washout Schedules is not credible or “*impossible*”. Prof. Graham said “*yes*” and went on to withdraw other parts of his report.

106. Counsel for the IAAF also asked Prof. Graham about three references in his report said to relate to the excretion window for trenbolone. Prof. Graham said “*on review of the literature, I do retract those citations, they are incorrect and they have misled the court and I do apologise for that ...*”. Prof. Graham also accepted that he had assumed that trenbolone had been injected, despite the fact that Dr. Rodchenkov made statements to the effect that the “*Duchess cocktail*” (a steroid cocktail optimised to avoid detection) contained oral trenbolone. Prof. Graham said that when he wrote his report he had not known of the existence of oral trenbolone, even though it appears to be available online.

(4) *Questions from the Panel*

107. Prof. Graham was asked by a member of the Panel whether, in his opinion, the EDP documents indicate that the Athlete ingested the alleged substances. Prof. Graham said:

“I thought the recording of the data was so discrepant, where you had peak abundances and then nanograms per millimetre, I thought they were fabricated, I thought some of the results were too good to be true, and then others were so bizarre as to be implausible, I made the assumption that they were not credible”.

108. Prof. Graham added that after hearing Prof. Ayotte’s evidence, he maintains this position.

B. Evidence relied on by the IAAF

(a) Dr. Grigory Rodchenkov

(1) *Witness statement*

109. Dr. Rodchenkov produced a witness statement dated 23 August 2018. Therein, he states that he is the former Director of the Moscow Anti-Doping Centre in Russia. He resigned in November 2015. Dr. Rodchenkov states that he assisted Prof. McLaren during his investigation into allegations of institutional doping in Russia and that he believes his life is at risk as a result.

110. Dr. Rodchenkov describes the background to “*the Program*”. Before the 2005 IAAF World Championships he recalls misreporting approximately 100 positive samples in athletics. He states that there was widespread use of doping in athletics and describes the Disappearing Positive Methodology, which involves hiding positive samples and making false entries into ADAMS. He also describes washout testing, carried out in advance of the 2012 London Olympic Games and the 2013 Moscow World Championships.

111. As to the London Washout Schedules, Dr Rodchenkov states that:

“On 17 July 2012, I left for the 2012 London Olympic Games, and Dr. Tim Sobolevsky took over the washout testing program and started drafting the washout tables (London Washout Tables). He would provide the London Washout Tables to the Liaison who reported to Deputy Minister Nagornykh ...

The London Washout Tables recorded the prohibited substances that had been detected in the relevant samples (if any). Often, the London Washout Tables also refer to numbers next to the prohibited substance. The numbers reflect the peak height, which provides an approximate estimation of the concentration of the relevant substance (or metabolite). For example, 60,000 means that the concentration is around 6 ng/ml.

I have reviewed the documents at EDP0019 to EDP0027 ... and can confirm that these are the London Washout Schedules that were produced by the experts from Moscow Laboratory in the lead-up to the London Olympic Games”.

112. In relation to the Moscow Washout Schedules, Dr Rodchenkov states that:

“Unlike the tables created for the 2012 Olympic Games, on the 2013 Moscow Washout Tables, the names of the relevant athletes were identified on documents entitled ... These documents (Moscow Washout Tables) were updated to reflect the progress of the washout testing.

It was my understanding that the athletes in the washout-program were instructed to take the Duchess Cocktail (composed of trenbolone, methenolone and oxandrolone). However, many of them used other doping protocols ...

(...)

I have reviewed the documents at EDP0028 to EDP0038 ... and can confirm that these are the Moscow Washout Schedules that Dr. Sobolevsky created in the lead-up to the Moscow World Championships”¹⁰.

113. Specifically in relation to the Appellant, Dr Rodchenkov states that the Athlete “*benefitted from the Program*” and was “*engaged in doping over the course of years*”.

¹⁰ Footnote omitted.

(2) *Examination-in-chief*

114. Dr. Rodchenkov gave live oral evidence at the hearing by videoconference from behind a screen, assisted by a translator and in the presence of a legal representative. Dr. Rodchenkov said that “*grodcben@yandex.ru*” was his email address during the relevant period.
115. Dr. Rodchenkov was asked by counsel for the IAAF why the London Washout Schedules “*only start with samples around [15-17 July 2012]*”. Dr. Rodchenkov said in response that the London washout programme started earlier. He travelled to London on 17 July 2012 and asked Dr. Sobolevsky to prepare the London Washout Schedules for presentation to Deputy Minister Nagornyykh. Dr. Rodchenkov was also asked why there was an “*m*” in the gender column of London Washout Schedules for some samples taken from female athletes. He replied: “*according to the international standard for the laboratories, if the gender is not indicated in the doping control form, or not entered at the registration of the sample, then by default, ‘m’ is entered*”. As to why an “*f*” sometime appears in relation to male athletes, Dr. Rodchenkov said: “*that must have been somebody’s mistake*”.
116. Counsel for the IAAF also asked Dr. Rodchenkov about two entries in the London Washout Schedules (EDP0024) relating to two samples taken from the same athlete (not the Appellant) on the same day. The first entry is as follows:

9326	2727843	m	27.07.2012	Novogorsk – International Olympic Committee [IOC]	T/E = 4.2
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117. The second entry provides:

9337	2730798	m	27.07.2012	Novogorsk	T/E = 4; desoxymethyltestosterone 60,000
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118. Dr. Rodchenkov was asked why one of these entries indicates a finding of desoxymethyltestosterone at an abundance of 60,000 whereas the other does not. Dr. Rodchenkov said that the athlete in question:

“... was one of the leading athletes at the time and he was being monitored and tested by various testing authorities as well as by RUSADA. When he would be providing a sample for RUSADA, he provided his actual urine, coming out of him. If he was providing a sample for a testing organisation, such as IOC, where the sample may be sent to Lausanne for testing, then the urine would be swapped at the collection by providing thawed-out urine. That was the scheme of protecting athletes during the preparation”.

119. As to the Moscow Washout Schedules, counsel for the IAAF asked why some of the results indicate substances that are not part of “*Duchess cocktail*” ingredients. Dr. Rodchenkov said that “*the athletes had their own trainers and doctors who gave them recommendations and advice ... there was nothing I could do about that ...*”. Counsel for the IAAF also asked why the dates for official samples on the Moscow Washout Schedules do not always match the official date of collection. Dr. Rodchenkov said that in some cases, the date could be the date of delivery of the sample or the date that testing was complete; this may result in a discrepancy. Dr. Rodchenkov was asked about an alleged error as to the location where one sample was collected. He stated that this

error had been made because many of samples received at that time were from the Russian championships in Moscow, but that competition used to be held at a different location.

120. Asked by the President of the Panel on what basis he believes that the Athlete has been engaged in doping over a period of years, Dr. Rodchenkov stated that he knew a person with whom the Athlete trained for many years; this person *“used to dope himself”* and he *“used doping within his group of athletes”*.

(3) *Cross-examination*

121. During cross-examination by counsel for the Appellant, Dr. Rodchenkov was asked why he had not mentioned anything specific about the Athlete in his witness statement. Dr. Rodchenkov stated that: *“my witness statement was aimed at painting a general picture of a large-scale doping scheme in Russia as well as mentioning the main players involved ...”*. He added that when he wrote his witness statement there was a *“large pile”* of *“about 40 athletes”*. He said that including information about each one would make his witness statement too long.
122. Dr. Rodchenkov stated that he did not prepare the London Washout Schedules because he was not in Moscow at the time and was not involved in the testing of those samples. It was put to Dr. Rodchenkov that he would not have been able to verify mistakes in the London Washout Schedules. Dr. Rodchenkov said that while he was in London he would receive the tables from Dr. Sobolevsky and he could not tell if there was a mistake. Dr. Rodchenkov also stated that the samples were tested at the Moscow Laboratory at the mass spectrometry department and recorded in the Laboratory Information Management System (“LIMS”). He added that any samples that were ‘positive’ would appear as ‘negative’ on LIMS and that the *“raw data”* was stored in a *“data station”*.
123. Counsel for the Athlete asked Dr. Rodchenkov about the two samples in EDP0024 and whether it was his testimony that sample 2727843 had been swapped. Dr. Rodchenkov said that the correct term is *“substituted”* because *“swapping”* is what happened in the laboratory. He said that substitution happened at the point of collection by a RUSADA doping control officer. It was put to Dr. Rodchenkov that he could not possibly know this because he was in London when the sample was taken. Dr. Rodchenkov stated that: *“an athlete always had clean urine on him whether at the place of residence or whether the athlete would be at some meet, and in the event that another testing authority scheduled a sample collection, then that urine was available”*. Asked how he could say this specifically about sample 2727843, Dr. Rodchenkov said: *“this was the scheme for the protection of athletes; this is how it worked”*.
124. In relation to the Moscow Washout Schedules, Dr. Rodchenkov was asked who prepared EDP0028. He said: *“it did not come from my computer, it is not mine”*. He said that EDP0029 did come from his computer and said that he updated it so that it could be presented to Deputy Minister Nagornykh. Counsel for the Athlete pointed out a discrepancy between EDP0028 and EDP0029 relating to the results of an athlete (not the Appellant). Dr. Rodchenkov said: *“the point of this was to determine which sample is positive and which sample is negative, this was a positive sample so it had to be substituted, my table [EDP0029] is correct, and the other table [EDP0028], at the very least, does not contradict my data”*. Asked how he could know the results of EDP0029 were correct, Dr.

Rodchenkov said: *“I received the test results from a printout and carefully, double-checking every time, I would enter the data into the table, and verified it, because I was the one who had to present it to Deputy Minister”*. He added that he did not conduct the tests himself and he received the results by email from Dr. Sobolevsky in a Microsoft Excel table, which he would print out and *“quickly delete”*, or by *“paper exchange of information in the lab”*. When asked how he verified that the results emailed to him were correct, Dr. Rodchenkov said that Dr. Sobolevsky is *“an outstanding scientist and I trusted his results”*. He added that it *“did not cross my mind”* to verify all the results himself because *“in such a large lab”* it would take too long.

125. Counsel for the Athlete also asked Dr. Rodchenkov about a particular entry in EDP0034 in relation to an athlete (not the Appellant) who claimed to have left Russia on the date indicated on the table. Dr. Rodchenkov said that this date was not a mistake; it could be the when the analysis was completed.
126. Dr. Rodchenkov said that he never met the Athlete, nor seen her take any prohibited substances or give urine outside an official test.

(4) *Questions from the Panel*

127. A member of the Panel asked Dr. Rodchenkov who decided whether or not an athlete would be *“protected”* for the purposes of the London and Moscow washout programs. Dr. Rodchenkov said it was primarily two people: Ms. Irina Rodionova (deputy director of the Russian Sports Preparation Centre) and Mr. Alexei Melnikov (senior coach for the Russian athletics team). Asked who contacted the athletes and by what means, Dr. Rodchenkov said Mr. Melnikov primarily used email whereas Ms. Rodionova preferred personal meetings and phone calls.
128. Dr. Rodchenkov was asked whether athletes were told one-to-one about the existence of a doping programme, or whether there were group meetings. Dr. Rodchenkov stated: *“members of the national team always knew that they were protected, Ms. Rodionova would begin her contact through the coach groups ...”*. He said that the London and Moscow programmes were very different. For the former, samples were collected by RUSADA and athletes knew when they would be collected. In relation to the latter, most of the samples were taken at locations where the athletes were training.
129. In relation to one particular sentence in his witness statement, Dr. Rodchenkov was asked whether the Athlete was *“fully aware”* that she was *“protected by the Russian state program”*. He stated: *“well, if they provide dirty urine and the result is negative do you presume that they are not aware?”*
130. A member of the Panel asked Dr. Rodchenkov if any athlete had ever refused to participate in the London or Moscow washout programmes. He said that he only knew of two and that neither appear in the Washout Schedules. Dr. Rodchenkov testified that there were approximately 100 *“protected athletes”* during the Moscow and London programs. He added that the Washout Schedules contain the *“key medal contenders”*.

131. Asked whether a benefit analysis was conducted in relation to the alleged prohibited substances, Dr. Rodchenkov said: *“all of this was done so secretly and nothing was ever disclosed ... I personally don't have the knowledge of this ...”*.
132. Finally, Dr. Rodchenkov was asked about EDP0148, an email purportedly sent from him on 2 August 2013 to Mr. Velikodny and Dr. Sobolevsky. Dr. Rodchenkov said *“this is my email”* and that he provided Prof. McLaren with *“everything that I could”*. He could not recall whether he had given this particular document to Prof. McLaren. Dr. Rodchenkov stated that the documents he provided to Prof. McLaren came from his computer; he brought his laptop and a hard-disc from his *“Moscow computer”*, which contained the *“Sochi samples”*, to the United States. Dr. Rodchenkov said that his attorneys were in possession of *“all the files, all the discs and all the emails”* and they were in contact with Prof. McLaren. When asked why others who had been involved in the alleged doping had not come forward, Dr. Rodchenkov said: *“the rest of them are in Russia where they have been intimidated and made to sign documents of non-disclosure by officers of the police of FSB and there is a silent agreement to stay silent”*.

(b) Mr. Andrew Sheldon

(1) Expert report

133. Mr. Sheldon is a computer forensic consultant specialising in the detection of computer crime, digital piracy, fraud and abuse in computer systems. He produced an expert report dated 31 October 2018, which was submitted by the IAAF. As explained above, Mr. Sheldon examined the same 35 EDP documents as Mr. Rundt.
134. Specifically in relation to the 11 emails he examined, Mr. Sheldon concludes that the *“messages are authentic and have been sent and received between Gmail, Yandex, minstm.gov.ru and Rusada accounts and there are no signs of changes to the Internet Transport headers”*. Mr. Sheldon states that he was able to calculate *“an MD5 hash value for every email and document”* contained in the forensic images he received.
135. In relation to DKIM signatures, Mr. Sheldon's report states that:

“A DKIM signature is a unique object generated using a strong hashing algorithm (SHA256) to create a hash of the message body which is added to a hash of multiple fields found in the email header such as From, To, In-Reply-To, References, Subject, Date.

These fields are used together with the public key provided by the email senders domain to generate a unique signature for every mail leaving that domain.

(...)

If any element, even a comma, is changed in the email, including its content, the DKIM signature will not be the same. Therefore, if any amendment has been made to the emails I examined, the DKIM will not have passed.

I have run re-validation tests on all the emails with DKIM signatures with the relevant algorithm (SHA256) using the public cryptographic key of the sending domain (ie. Google.com) and for all of them

the DKIM-result was pass indicating that the native files I examined have not been altered since they were sent on the dates indicated”¹¹.

136. Mr. Sheldon’s report makes the following observations in relation to the EDP documents relied on by the IAAF forming part of the Washout Schedules:

EDP0019 (London Washout Schedule)

“The File system metadata indicates the file was modified in April 2016 and created & accessed in November 2016. This would be the case if the file was;

1. *Opened and Saved As a new file to a new location in April 2016*
 - *All dates would be set to 09/04/2016*
2. *Copied to a new location in Nov 2016*
 - *The Modified date is preserved, Created date is updated to 09/11/16*

However, as the internal metadata CREATION, LAST PRINTED and MODIFICATION dates are all earlier than the dates shown in the filesystem metadata I can conclude it was created on 19th July 2012 at 04:02:29 UTC”.

EDP0021 (London Washout Schedule)

“The Filesystem metadata indicates the file was modified in April 2016 and created & accessed in November 2016. This would be the case if the file was;

1. *Opened and Saved As a new file to a new location in April 2016*
 - *All dates would be set to 09/04/2016*
2. *Copied to a new location in Nov 2016*
 - *The Modified date is preserved, Created date is updated to 09/11/16*

However, as the internal metadata CREATION and MODIFICATION dates are all earlier than the dates shown in the filesystem metadata I can conclude it was created on 23rd July 2012 at 06:13:53 UTC”.

EDP0026 (London Washout Schedule)

“The Filesystem metadata indicates the file was modified in April 2016 and created & accessed in November 2016. This would be the case if the file was;

1. *Opened and Saved As a new file to a new location in April 2016*
 - *All dates would be set to 09/04/2016*
2. *Copied to a new location in Nov 2016*
 - *The Modified date is preserved, Created date is updated to 09/11/16*

¹¹ Footnote omitted.

However, as the internal metadata CREATION and MODIFICATION dates are all earlier than the dates shown in the filesystem metadata I can conclude it was created on 31st July 2012 at 15:31:36 UTC”.

EDP0032 (Moscow Washout Schedule)

“The Filesystem metadata indicates the file was modified in August 2013 and created & accessed in November 2016. This would be the case if the file was;

1. *Opened and Saved As a new file to a new location in August 2013*
 - *All dates would be set to 21/08/2013*
2. *Copied to a new location in Nov 2016*
 - *The Modified date is preserved, Created date is updated to 09/11/16*

However, as the internal metadata CREATION date is earlier than the dates shown in the filesystem metadata I can conclude it was created on 4th July 2013 at 11:58:04 UTC.

Because the MODIFIED date in document metadata matches the MODIFIED date in the file system metadata, I can conclude that the document was subsequently modified and saved to a different name and/or location on the 21st August 2013 at 07:28:51 UTC.

The file was last printed on the 30th July 2013.

This file has exactly the same creation date as EDP0028 to EDP0038 but a different HASH value. It was modified after EDP0029. This indicates that this file is a modified copy of EDP0035 (the earliest in the sequence) or EDP0028, EDP0029, EDP0030, EDP0031, EDP0033, EDP0034, EDP0036, EDP0037 or EDP0038 with different content.

The document Author and Last Saved By metadata fields are populated using the names registered in software used to create or modify the document. In this case, the software used was MS Excel version 2010”.

EDP0757 (Clean Urine Bank)

“The document was created using MS Excel 2013 (v15.0300).

Based on the CREATION date shown in the Internal metadata I can conclude it was created on April 27, 2015 09:39:22 UTC

Based on the MODIFICATION date shown in the Internal metadata I can conclude it was created on April 30, 2015 09:42:57 UTC

The document Author metadata field is populated using the name registered in software used to create the document.

This Document is an attachment to email EDP0756”.

137. In relation to EDP0756, which is the email to which EDP0757 (the Clean Urine Bank) was attached, Mr. Sheldon makes the following observations:

“This message was sent using a web browser (user-agent: Mozilla/5.0 (Windows NT 6.1; WOW64; rv:31.0) Gecko/20100101) and a web mail client (Thunderbird/31.6.0) from a Gmail account using HTTP (inferred based on user-agent) and the headers contain the appropriate Gmail authentication indicating a genuine email.

The date and time stamps are the same as the date and time encoded (epoch date) into the Message-Id header (Thursday, April 30, 2015 9:44:37 AM UTC).

The email was created on the date and time shown and the headers are legitimate and show no irregularities in timing.

The originating IP address is shown as 85.93.156.110 which is currently associated with ‘Internet-Cosmos Ltd, Nijnyaya Krasnoselskaya str. 39, 105066 Moscow, Russia’.

This mail contains an attachment named Samples_X00.xlsx which is allocated the reference number EDP0757”.

138. Finally, specifically in relation to EDP0019, Mr. Sheldon states that it has an identical “creation” and “last printed” date and time as two other documents: EDP1168 and 1170. By examining the contents of these files, Mr. Sheldon deduces that “they all derive from the same document which I believe to be a previous version of EDP0019” which was created on 19 July 2012 at 04:02:29. Mr. Sheldon’s report sets out, in some detail, what he believes to be the sequence of events that led to the creation of these three documents.

(2) *Examination-in-chief*

139. Mr. Sheldon gave live oral evidence at the hearing by videoconference. Mr. Sheldon said that in relation to the “*manufacture of fraudulent emails with attachments*”, it may be possible to create an individual email that looks genuine, but “*at scale*” it would be “*an impossibility, technically extremely difficult, to the point where it would be possible to decipher potential fraudulent activity*”. He added that when looking at data in isolation, it is necessary to look at “*supporting data that adds corroboration to the veracity of the data*” and there is some of that in the evidence he examined.
140. Asked by the President of the Panel as to the difference between “*impossible*” and “*technically extremely difficult*”, Mr. Sheldon said it was a question of “*time and scale and resources*”. He added that “*email headers are extremely complex structures and to get every part of them right on a single email would take a lot of time, on many hundreds or more emails ... I think is beyond the balance of practicality*”.
141. Asked about the 35 files provided to him and Mr. Rundt, Mr. Sheldon said: “*it’s usual to be able to obtain data at source, but it is not unusual ... to find material in a drawer, perhaps on a thumb drive, that has no provenance back to a user or a machine. In those circumstances you can still rely on the material that is on the thumb drive ... providing that we can test it for veracity*”.
142. Mr. Sheldon provided the following explanation of a message-ID:

“When an email is sent from a sender, it leaves your PC for example, and it arrives at your sending mailbox and that point the email servers handling messaging appends to it a unique ID, it has to be a unique ID globally to the email system. And to do that, very often, they use the precise date and time, it

is called an epoch date and time. It is the number of seconds from 00:00:00 on the 1st of January 1970. And they calculate that number, so it is very, very precise and then they add another sequence of numbers which they generate, followed by domain information. That message, that string is unique to that message as it travels through the email system”.

143. Mr. Sheldon referred to EDP1176 as an example in his report, which has a message-ID of: “50078FBE.6070600@gmail.com”. He stated that this message-ID was generated by the Gmail server and the first part (“50078FBE”) is the epoch date of Thursday 19th July 2012 at 08:40. Mr. Sheldon added that EDP1168, which was attached to the email, had the same date and time encoded.
144. Mr. Sheldon was asked specifically about EDP0279. He described in detail the information contained in the header and the various “hops” which can be seen on page 27 of his report as follows:

Hop	Sent From	Received By	Sent Using	Sent Time	Hop Delay
1	[178.34.134.34] ([178.34.134.34])	web25h.yandex.ru	HTTP	03/03/2014 18:55:12 +0400	*
2	127.0.0.1 (localhost [127.0.0.1])	web25h.yandex.ru (Yandex)	ESMTP	03/03/2014 18:55:12 +0400	0
3	web25h.yandex.ru (web25h.yandex.ru [84.201.187.159])	forward5h.mail. yandex.net (Yandex)	ESMTP	03/03/2014 18:55:13 +0400	1 sec
4	forward5h.mail.yandex.net (forward5h.mail.yandex.net. [2a02:6b8:0:f05::5])	mx.google.com	ESMTPS	03/03/2014 06:55:21 -0800	8 sec
5		10.60.179.12	SMTP	03/03/2014 06:55:21 -0800	1 sec

145. In relation to this email, Mr. Sheldon said that the yandex IP addresses at “hop 1”, “hop 2” and “hop 3” were valid. Mr Sheldon was also asked about the DKIM signature for this email, which appears in his report as follows:

```
v=1; a=rsa-sha256; c=relaxed/relaxed; d=yandex.ru; s=mail; t=1393858512;
bb=z/D/WORZsMubSrqpfnO6sC5Xf6n11EDWZadaictBm0s; b=From:To:In-
Reply-To:References:Subject:Date;
b=C6EwKQcwX/ZDi9db9gRjAWxKROw9OBYXhDbYjPLdy/wReXIR/wgXfhpXArct IRSz0
+tf0BGkk6SeG2Sy2aUWQhV+O8ofHYLms8cbdBg1eKznU8x0wO2LgQMkjSa4d
ei8SLF LUNXxSU1gLi6tOeA6v+vY3DwCWVwtMd4nNlb0k4I=
```

146. Mr. Sheldon explained that:

“Just to be clear, a DKIM signature is a cryptographically signed signature, which makes it impossible, not very unlikely but impossible, to forge. So if I explain what happens: when I send the email, from Gmail for example or from yandex, it leaves my computer and it goes through some ‘hops’ and it gets to my sender’s computer, the sending mail server. The sending mail server then ... adds a header, it adds a line, and it uses a series of what are called ‘hash values’. It calculates hash values based on various parts of the email. If you look at the block marked ‘DKIM signature’ you’ll see ... ‘a=rsa-sha256’. That’s actually a SHA-256 hash value that is calculated, a very cryptographically strong hash value, which means it is like the fingerprint of the email. It is made up of various components. If I go along a little bit further it says ‘d=yandex.ru’. That is the domain from which the email is coming. Then it says ‘t=’ and there is a series of numbers. That again is an epoch number. So by decoding that number it will tell you the date and time precisely to the second when that email was processed. Then if you come down to the second line ... it says ‘b=’ and then it takes the contents of the ‘From’ field, the contents of the ‘To’ field, the contents of the ‘In-Reply-To’, the contents of the ‘Reference’, ‘Subject’ and ‘Date’ fields, it takes all those particular fields and creates another hash value for it. And then it takes the contents of the body of the email and creates a hash value for it. So it creates multiple hash values. That creates a unique signature and that signature is then signed by, in this case, yandex’s private key. This is a cryptographic key that they possess ... it is in two parts, there is a private key and public key. So they publish their public key. So now the email transits the email system and when it is received at the other end by the receiving mail server, the receiving email server reads the DKIM signature, recalculates the hash values based on SHA-256 and then uses the sender’s public key to check that the signature block has not been manipulated, in other words that whole email has not been manipulated. ... Mr. Rundt mentioned the concept of authenticity and integrity. This methodology, this DKIM signature, is using either Google, or yandex in this particular case, it is using their public and private keys to authentic mail so that you can say for certain that has come from this email address, from this domain, at this time and also that the contents of the mail, the integrity of the mail, has not been modified. The content includes any attachments to the email. They are all hashed and validated at the same time”.

147. Mr. Sheldon said that he ran a “revalidation test” for the four emails with DKIM signatures and they all passed. He added that if anything had been changed in these emails, the validation process would not have been successful.
148. Asked why some of the emails do not have a DKIM signature, Mr. Sheldon explained that they may have been received from the sender’s sent mailbox and as a result, they “haven’t yet passed through the email system”.

(3) *Cross-examination*

149. During questioning by counsel for the Athlete, Mr. Sheldon accepted that he only had access to copies of the 35 files he examined, not the original files. He did not have access to the hard-drive(s) or computer(s) from which the files originated. He did not know how or from which device(s) the data was extracted. He did not know which tool or methods were used to extract the files. He did not know whether there was an independent expert present during the preservation of the EDP documents. He had not seen any documents pertaining to the chain of custody, nor did he know how the EDP documents had been stored, or who had been given access to them.

150. Counsel for the Athlete took Mr. Sheldon to the four emails that had other EDP documents attached to them (EDP0757 was attached to EDP0756, EDP1168 was attached to EDP1167, EDP1170 was attached to EDP1169 and EDP1173 was attached to EDP1172). Mr. Sheldon said that none of these four emails have DKIM signatures.
151. As to the provenance of the evidence, Mr. Sheldon said that on the basis of the EDP numbering system, he believed that e-discovery software had been used to obtain the documents. He said that he was told to examine the 35 documents in isolation and would not be able to access any further documents.
152. Counsel for the Athlete also asked Mr. Sheldon about the veracity of the contents of the EDP documents. Mr. Sheldon said: *“let me be clear, I have no knowledge of what the contents of the documents mean ... my work is about the document itself, not the content”*. Mr. Sheldon said that information as to the document author is contained in the metadata, which can be extracted, but he cannot *“place fingers on the keyboard”*.

(4) *Questions from the Panel*

153. Asked by a member of the Panel why he was not given access to more EDP documents, Mr. Sheldon said that he did not think this information was available to those instructing him. Pressed on this point, Mr. Sheldon said that he could not recall whether he asked for more information.

(c) **Prof. Christiane Ayotte**

(1) *Expert Report*

154. Prof. Ayotte is the Scientific Director of the WADA-accredited Doping Control Laboratory at the Armand-Frappier Santé Biotechnologie Research Centre in Quebec, Canada. As to her experience, she states that: *“I have significant experience of the detection and identification of prohibited anabolic agents in athletes’ samples and I have conducted research on the designer black market steroids that are discussed in these cases, namely desoxymethyltestosterone and methasterone”*¹². Prof. Ayotte prepared an expert report dated 23 May 2019, which was submitted by the IAAF.
155. In her report, Prof. Ayotte states that she *“firmly disagree[s] with Prof. Graham’s conclusions as well as the underlying assumptions and premises”*. Prof. Ayotte makes a number of general observations in relation to Prof. Graham’s report, including:
- a. The level of metabolites detected cannot be estimated with any useful certainty because reference standards of metabolites were not available in 2012 and 2013. Dr. Rodchenkov adopted *“some equivalence”* but *“that should not be regarded as anything other an imprecise approximation”*.

¹² Footnote omitted.

- b. The specific gravity value of athletes' samples in the Moscow Washout Schedules is not available. It is therefore *“very difficult to understand how the expert can draw conclusions as to the scientific plausibility of an excretion curve built from peak heights – in particular using terms like ‘impossible’ – without having adequate data as to the specific gravity”*.
 - c. Prof. Graham appears to assume that the detection window is a fixed parameter that is the same for every person in every circumstance. However, there is *“significant inter-individual variability in excretion”*.
 - d. There is no data on the doping regimen, including the dose, mode of ingestion, repetition or the timing. Prof. Graham *“appears to assume that the date of the first positive sample (in a series of positives) in the washout tables must be the last day of administration; however, there is no apparent basis for this assumption”*.
 - e. Prof. Graham argues that if athletes had been taking anabolic-androgenic steroids, the T/E values of their urine samples *“would have been augmented”*. Prof. Ayotte *“has never heard of T/E values being a marker, let alone a mandatory marker of other anabolic steroids than those directly metabolized into testosterone or epitestosterone such as testosterone of course and its precursors DHEA and androstenedione”*¹³.
156. In relation to DMT, Prof. Ayotte notes that an abundance of 2,300,000 is recorded in EDP0019 in relation to sample 2729686, which decreases to 300,000 five days later for sample 2729483, recorded in EDP0021. Prof. Ayotte states that these abundances are plausible and consistent with *“rapid clearance of oral DMT”*. She states that she cannot understand why Prof. Graham concludes that these decreasing abundancies are scientifically unsound bearing in mind *“the short detection periods and the relatively high intensity of the metabolite in the first samples for each case, a rapid decrease is expected”*. Prof. Ayotte's report states that although the period during which DMT metabolite can be detected is variable depending on *inter alia* the individual and the dose administered, in all cases the intensity of DMT metabolite decreases significantly within days.
157. Specifically in relation to the Athlete, Prof. Ayotte states:
- “... Professor Graham considers (...) that the decreasing rate of the abundances of the methasterone long-term metabolite in the four samples in which it was detected is “not credible from a scientific perspective” (peak heights recorded 8 700 000, 600 000, 40 000, 20 000, 20 000 each approximately 7 days apart from 28 June to 23 July 2013 and clear 18 days later on 30 July 2013).*
- In fact, the levels are decreasing with time, i.e. within one month, as expected for a long-term metabolite of a steroid taken orally.*
- The presence of methasterone metabolites in high abundances in four samples constitutes in my view convincing evidence that the athlete to whom these samples belong had used methasterone”*.
158. Professor Ayotte concludes her report by noting that:

¹³ Footnote omitted.

“With respect, it is difficult to understand how Professor Graham could reach the extremely firm conclusions he reached – referring, as he does, to scientific impossibility – in circumstances where (i) we are dealing with imprecise, approximated concentrations based on peak abundance, (ii) the specific gravity of the samples is not given and (iii) we have absolutely no information about the doping regimen (timing, dose, mode of administration, date of cessation etc.)”

(2) *Examination-in-chief*

159. Professor Ayotte gave live oral evidence at the hearing, further challenging Prof. Graham’s findings. She was asked what physiological benefits steroids might have on athletes and specifically, for instance, high jumpers. Prof. Ayotte said that there are many reasons why any athlete might use anabolic steroids: to speed up recovery after injury, to help an athlete train for a longer period of time, to increase stamina, to give more energy, or to compensate after competition or heavy exercise for hormonal re-equilibration.

(3) *Cross-examination*

160. In cross-examination by counsel for the Athlete, Prof. Ayotte described her background and experience, stating that she was part of the scientific expert team working with Prof. McLaren. When asked whether the samples in the Washout Schedules were actually tested, Prof. Ayotte said: *“for some of these, the official samples, of course we know that these were tested because the results were entered in ADAMS and they exist somewhere, but ... the unofficial testing, under the table, no, no one saw these ...”*.

161. Prof. Ayotte was asked whether the entries in the Washout Schedules are sufficient or reliable enough to refer to a certain level or concentration. She stated that the substances in question were *“non-threshold”* such that confirmation is based only on identification, irrespective of the level or concentration; these are *“abundance or peak heights”*. She added that: *“when the numbers are bigger, the amount must have been bigger, but what the amount is, this we don’t know”*. Prof. Ayotte said that this method would be fit for the purpose of detecting prohibited substances that would be reported as an adverse analytical finding. She agreed with counsel that, on the basis of the imprecise approximation in the Washout Schedules, it would not be possible to make a precise predication on the time that would be needed for a complete washout.

162. In relation to Prof. Graham’s evidence, Prof. Ayotte stated:

“Prof. Graham was relying on a wrongful manner to these abundance and levels by assuming we were starting at time zero. Also because he was saying that this was ‘impossible’, that this could be ‘scientifically impossible’, so my answer to this was ‘hold the phone’, what we have here is only an estimation of an abundance of a peak, we don’t know what is the specific gravity ... we don’t know if it is 1,000 in a 1.01 urine sample, or 2,000,000 in 1.033. So this is one thing that we don’t know. Therefore we cannot say that this is not decreasing with the expected decreasing rate”.

163. In relation to EDP0019 in which it is stated that an athlete’s sample (not the Appellant) contained *“oral-turinabol 6000”*, Prof. Ayotte said that it would *“always”* be a low abundance

“except when it is recently taken”. She agreed with counsel that whether the result had been 6,000 or 10,000, these are not precise concentrations; the same sample tested an hour later, or with a different instrument, could result a variation within that that range. As to what would be considered a low abundance level for oral-turinabol, Prof. Ayotte stated that it would depend on the laboratory and the technique used. She added: *“this is just a number, it is an instrument response, the instrument gives a number and the units are not even known”*. In her opinion, the alleged finding of *“oral-turinabol 6000”* in relation to that sample is *“low but confirmed ...”*.

164. Asked how she could say that *“6,000”* is a *“relatively low abundance”* without knowing *“what the peaks look like”*, Prof. Ayotte said: *“because I know, 6,000 is a low abundance peak but it is nonetheless a good peak, a clear peak”*. She added that DHCMT, the long-term metabolite *“is never formed in high concentrations and it will therefore never produce big peaks unless you are the beginning of the excretion ...”*.

165. In contrast, Prof. Ayotte said that for methasterone:

“the peak of the long-term metabolite is high, it is a high abundance peak and so therefore we expect to have peaks that could have a higher abundance, it is not abnormal to find 2,000,000 for methasterone ... 1 nanogram of DHCMT long-term metabolite and 1 nanogram of methasterone metabolite will not have the same peak height ... but also the body will produce less, so therefore 6,000, 10,000 makes sense for DHCMT and methasterone at 8,000,000 ... makes sense also”.

166. Prof. Ayotte was asked about the six entries relating to the Athlete in the Moscow Washout Schedules (EDP0032):

Shkolina 28/06		methasterone (8 700 000)
Shkolina 06/07		methasterone metabolite 600 000
Shkolina 17/07		T/E = 0.8, methasterone long-term metabolite 40 000
Shkolina 23/07	Russia	methasterone metabolite 20 000
Shkolina 30/07	out-of-competition	methasterone metabolite 20 000 no change!
Shkolina 17/08	WC	clear

167. In relation to these entries, Prof. Ayotte was asked on what basis she could conclude in her report that: *“[t]he presence of methasterone metabolites in high abundances in four samples constitutes in my view convincing evidence that the athlete to whom these samples belong had used methasterone”*. Prof. Ayotte said that she had in fact been referring to the first five samples in the table above. Asked whether *“20,000”* is a high abundance, she stated: *“methasterone long-term metabolite is formed in much higher concentrations than the dehydrochlormethyltestosterone long-term metabolite, so it is a clear analytical signal at 20,000 ... the peak is clear at 20,000 and it is clear at 8,000,000, it is a clear peak”*.

168. Prof. Ayotte was also asked by counsel to comment on the period between 17 July 2013 and 30 July 2013 during which the abundance of methasterone metabolite in the Athlete’s alleged unofficial samples in EDP0032 only decreased from 40,000 to 20,000. She said: *“what we don’t know here is the specific gravity of the sample, first we don’t know if these were dilute or if these were concentrated ... 8,000,000 going to [600,000] to [40,000] to 20,000 to 20,000 is something that makes sense, although it’s a bit surprising, but there are so many things that are not given here that it does not, for me, discredit these”*.

findings". In relation to the Washout Schedules more generally, Prof. Ayotte stated: "*this is not the kind of data on which you build pharmacokinetic data*".

(4) *Questions from the Panel*

169. A Panel Member put the same question to Prof. Ayotte as had been asked to Prof. Graham: whether, in her opinion, the EDP documents indicate that the Athlete ingested the alleged substances. Prof. Ayotte said:

"On the basis of the information that was provided to me I found that it was credible, there were no discrepancies, there was nothing that made no sense, there was nothing that was too perfect to be true, so this is why, on the basis of the information provided, assuming that the data was accurately reproduced, it made good evidence in the ensemble that each of these athletes were involved, or were using, these substances".

(d) **Prof. Christophe Champod and Dr Tiia Kuuranne**

(1) *Expert Report*

170. The IAAF relies on seven reports by Prof. Champod and Dr. Kuuranne, examining whether urine sample bottles had been forcibly opened and resealed.

171. In their reports, Prof. Champod and Dr. Kuuranne explain that they identified three types of marks on the inner side of the plastic cap of Bereg kits (bottles used to store official samples):

- a. "F marks", which are typical of those observed consecutive to the manufacturing process;
- b. "U marks", which are typical of those observed on the inside of the cap (either by the spring or the metallic ring) when the bottle is regularly closed; and
- c. "T marks", which are typical of those observed consecutive to tampering activity.

172. One of the bottles examined by Prof. Champod and Dr. Kuuranne relates to sample 2808655, taken from the Athlete at the Moscow World Championships on 17 August 2013. Prof. Champod and Dr. Kuuranne did not find any "T marks", indicating that tools were used to forcibly open the bottle. They express the opinion that it is "*10 times more probable*" that the "F and U marks" seen on the bottle "*are consecutive to a normal closing of the bottle rather than if there was tampering*". They conclude that there is "*moderate support for the proposition that the bottle has been closed regularly, rather than for the proposition that the bottle has been forcibly opened*".

(2) *Oral evidence*

173. Prof. Champod gave live oral evidence at the hearing. He provided an overview of his work and confirmed his conclusions in relation to sample 2808655.

174. Under cross-examination by counsel for the Athlete, Prof. Champod stated that during early stages of his investigation in August to October 2017, he observed two isolated “*T marks*” on bottles that had not been forcibly opened.

IX. MERITS

A. Liability

175. Whereas this is an appeal against the Challenged Decision, Rule 42.20 of the 2012 IAAF Rules mandates that this appeal takes the form a *de novo* re-hearing. Likewise, Article R57 of the Code provides that:

“The Panel has full power to review the facts and the law. It may issue a new decision which replaces the decision challenged or annul the decision and refer the case back to the previous instance. The President of the Panel may request communication of the file of the federation, association or sports-related body, whose decision is the subject of the appeal. Upon transfer of the CAS file to the Panel, the President of the Panel shall issue directions in connection with the hearing for the examination of the parties, the witnesses and the experts, as well as for the oral arguments”.

176. It follows that the Panel is not bound, in any way, by the findings of the Sole Arbitrator at first instance, whether on the law or the facts, nor is the Panel restricted in the scope of its enquiry to procedural irregularities. This Award is, in effect, a fresh decision, based on the evidence put before this Panel in these proceedings.

177. The Panel is mindful of the unusual characteristics of this case. The Athlete has not – officially at least – tested positive for any prohibited substances. Unlike most other doping cases where there is an official ‘positive’ test result, here there are none, and no B sample to be tested. The allegations primarily stem from the EDP documents. The Athlete contends that she cannot ascertain the provenance and authenticity of the evidence against her and is not in a position to understand it, “*let alone counter such evidence*”. She says that she “*is confronted with an impossible situation: she is wrongly accused of being a doped athlete simply because samples allegedly belonging to her appear in a few documents, she is not given access to any underlying data and, yet, somehow expected to disprove these allegations, without any means to do so*”.

(a) *Legal framework*

178. The Athlete has been accused by the IAAF of breaching Rule 32.2(b) of the 2012 IAAF Rules, which states as follows:

“(b) Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method.

- (i) it is each Athlete’s personal duty to ensure that no Prohibited Substance enters his 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 a Prohibited Method.*

(ii) *the success or failure of the Use or Attempted Use of a Prohibited Substance or Prohibited Method is not material. It is sufficient that the Prohibited Substance or Prohibited Method was Used, or Attempted to be Used, for an anti-doping rule violation to be committed*".

179. The IAAF contends that the Athlete has used desoxymethyltestosterone (DMI) and methasterone. Both of these are and were prohibited substances at the relevant time under S.1(a) of the WADA List of Prohibited Substances and Methods.

(1) *Establishing ADRVs under the IAAF Rules*

180. The 2012 IAAF Rules expressly set out the methods that can be adopted to establish "*Facts and Presumptions*" in relation to ADRVs. It is recalled that Rule 33.3 of the 2012 IAAF Rules states that:

"Facts related to anti-doping rule violations may be established by any reliable means, including but not limited to admissions, evidence of third Persons, witness statements, experts reports, documentary evidence, conclusions drawn from longitudinal profiling and other analytical information".

181. At the hearing, counsel for the Athlete asserted that "*direct evidence*" is available to the IAAF, particularly in the form of LIMS data. As the IAAF had failed to make this available, relying instead on the EPD documents, counsel submitted that such circumstantial evidence could only be given very little weight, if any. When the President of the Panel asked counsel what is the legal basis for this submission, he said that this case is an "*unprecedented situation*".

182. The Athlete also argues that the Panel should be slow to rely on the EDP evidence because the McLaren Reports are not intended to be used as evidence of ADRVs by individual athletes. The Athlete made reference to certain individuals who are referred to in the McLaren Report and were subsequently "*cleared of wrongdoing*".

183. The Panel notes that Rule 33.3 of the 2012 IAAF Rules makes no distinction between "*direct*" and "*circumstantial*" evidence, nor does it specify that evidence must have been created or obtained specifically for the purpose of proving ADRVs. Rule 33.3 states that the party with the burden of proving an ADRV – in this case the IAAF – may resort to "*any reliable means*". The use of the word "*any*" makes clear that there is no restriction on the type or nature of evidence that may be adduced. However, the Panel can only reach findings of fact on the basis of evidence that is reliable.

(2) *The burden and standard of proof*

184. The burden and standard of proof to be met in this case is set out in Rule 33.1 of the IAAF Rules:

"The IAAF, the Member or other prosecuting authority shall have the burden of establishing that an anti-doping rule violation has occurred. The standard of proof shall be whether the IAAF, the Member or other prosecuting authority has established an anti-doping rule violation to the comfortable satisfaction of the relevant 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”.

185. Two points flow from this. First, the standard of proof to which the IAAF must satisfy the Panel is that of “*comfortable satisfaction*”, bearing in mind the particular seriousness of the allegations made in this case.
186. Second, it is the IAAF that must satisfy the Panel that the Athlete has committed ADRVs (not the other way around). That is not to say that the Athlete does not have a role to play in these proceedings. It is open to her to produce evidence and to make legal submissions on the case advanced by the IAAF. She fully availed herself of that opportunity in this case: she has been legally represented throughout the procedure and has engaged two experts to produce reports in relation to the forensic analysis of 35 EDP documents (Mr. Rundt) and on the scientific feasibility of the information contained in the Washout Schedules (Prof. Graham). To be clear, while it is the Athlete that has initiated these proceedings, the onus is on IAAF to prove the allegations.
187. The Athlete argues that because of the nature of the evidence in this case, she is unable to disprove the content of the EDP documents because she does not know *inter alia* who created these documents, where and when they were extracted and how they came into the possession of anti-doping authorities. In essence, her case is that she does not know why her name appears in the EDP documents and that at least some of the information contained therein (insofar as it relates to her) is not true. Bearing this in mind, the Panel has approached its task with a degree of anxious scrutiny, particularly in relation to the authenticity of the EDP documents relied on by the IAAF. In relation to each and every piece of evidence that relates to the Athlete, it is for IAAF to satisfy the Panel to the requisite standard that the document in question is authentic and that its content is true.

(b) Evidence

(1) The Athlete’s request for disclosure

188. The Athlete alleges that the IAAF has not been forthcoming in relation to evidence that may exonerate her. An example provided is the re-testing of her sample from the 2012 Olympic Games. According to the Athlete, she was only made aware that this sample re-tested negative when a request was made to the IAAF in these proceedings.
189. During closing submissions, counsel for the Athlete referred to a press release dated 20 November 2019 in which it is stated that WADA provided the IAAF with “*the data of all IAAF athletes, including that of the 66 IAAF athletes included in the Target Pool*”. Counsel asserted that the IAAF “*is in possession of information potentially relevant to this case, we did not know at the time we filed the appeal, something new, and again when going through the different reports we now realise they’ve had that for a number of months*”. Counsel then made a “*formal request*” for the Panel to order the IAAF to file all data it received from WADA (in particular LIMS data) relating to the Athlete. Counsel for the Athlete acknowledged that if the Panel agreed to this request, the parties would need to analyse any new evidence and make submissions, possibly at a further hearing.

190. It is noted that counsel for the Athlete substantiated the request by reference to a press release of 20 November 2019, predating the hearing by more than three months. It is a matter of surprise that counsel waited until closing submissions at the hearing on 4 March 2020 to make such a request. By that stage, the written and evidential phase of the proceedings had already been completed.

191. Article R56 of the Code provides that:

“Unless the parties agree otherwise or the President of the Panel orders otherwise on the basis of exceptional circumstances, the parties shall not be authorized to supplement or amend their requests or their argument, to produce new exhibits, or to specify further evidence on which they intend to rely after the submission of the appeal brief and of the answer”.

192. Pressed by the President of the Panel, counsel for the Athlete could not identify any applicable “exceptional circumstances” within the meaning of Article R56 to justify further disclosure and a re-opening of the evidential phase of the case. The Panel cannot accede to this request. Such a request could, and should, have been made much earlier.

(2) *The evidence in this case*

193. Turning to the evidence in this case, the Athlete emphatically denies ever having used a prohibited substance. Beyond denial of the allegations, the Athlete’s written and oral testimony provides relatively little by way of corroborating or exculpatory evidence.

194. The only other witness of fact in this procedure is Dr. Rodchenkov. However, the Panel is unable to place much weight on his evidence, both his written and oral testimony. Counsel for the IAAF acknowledged that Dr. Rodchenkov is a “colourful character” with “an unfortunate habit of not always responding directly to questions”. At the hearing, Dr. Rodchenkov was somewhat evasive and failed to answer many of the questions directed at him (despite some being repeated on multiple occasions). Moreover, Dr. Rodchenkov has very little to contribute specifically in relation to the Athlete. The assertion in his witness statement that he believes the Athlete “benefitted from the Program” and was “engaged in doping over the course of years” is little more than a mere assertion.

195. At the hearing, the IAAF was asked how much of Dr. Rodchenkov’s evidence it would need to rely upon to prove its case against the Athlete. Counsel for the IAAF answered: “probably nothing” because the EDP documents “speak for themselves”. Neither party has been able to demonstrate the provenance of the EDP documents. Some of these may have originated from Dr. Rodchenkov and others from anonymous sources.

196. The task for the Panel is to determine whether the EDP documents are a reliable means (within the meaning of Rule 33.3 of the 2012 IAAF Rules) by which it can be comfortably satisfied that the Athlete has used prohibited substances (within the meaning of Rule 33.1 of the 2012 IAAF Rules). It follows that the alleged ADRVs in this case will turn, to a large measure, on the reliability of the five specific EDP documents relied upon by IAAF in this case:

- a. EDP0019, EDP0021 and EDP0026 (London Washout Schedules);
 - b. EDP0032 (Moscow Washout Schedules); and
 - c. EDP0757 (the Clean Urine Bank).
197. The IAAF relies primarily on these five documents (as well as other facts and evidence) from which it asks the Panel to infer that the Athlete used prohibited substances. These five documents are the only evidence directly linking the Athlete with the ADRVs alleged by the IAAF. There is no evidence as to the particulars of the alleged ADRVs: it is not known precisely when and how the prohibited substances were allegedly administered by the Athlete. It is not known who allegedly administered the substances. And it is not known if the Athlete was aware of the alleged doping, or even of the existence of a general doping scheme.
198. The Panel recognises that the purpose of the McLaren Reports was to make findings in relation to an alleged general doping scheme in Russia. This was recognised by Prof. McLaren in his second report:
- “The IP [Independent Person] is not a Results Management Authority under the World Anti-Doping Code (WADC 2015 version). The mandate of the IP did not involve any authority to bring Anti-Doping Rule Violation (“ADRV”) cases against individual athletes. What was required is that the IP identify athletes who might have benefited from manipulations of the doping control process to conceal positive doping tests. Accordingly the IP has not assessed the sufficiency of the evidence to prove an ADRV by any individual athlete. Rather, for each individual Russian athlete, where relevant evidence has been uncovered in the investigation, the IP has identified that evidence and is providing it to WADA in accordance with the mandate. It fully expects that the information will then be forwarded to the appropriate International Federation (“IF”) for their action”.*
199. References to an athlete’s name in the McLaren Reports, or references to an athlete or sample numbers in the Washout Schedules does not suffice – without more – to establish ADRVs against an individual athlete. The Panel must consider references to the Athlete in the EDP documents together with all of the other evidence advanced by the parties. The Athlete does not expressly deny the existence of a doping scheme in Russia during the relevant period. At the hearing, it was submitted for the Athlete that Dr. Rodchenkov was “*probably ... involved in some sort of scheme*”, but the extent of the scheme is unknown and it cannot be proved that the Athlete was involved. The existence of a general doping scheme has also been acknowledged (to some extent) by the Russian Ministry of Sport in a letter to WADA on 13 September 2018. The Panel concurs that the mere existence of a doping scheme does not suffice for the purposes of establishing ADRVs in individual cases. However, the existence of such a scheme is a relevant fact to be taken into account in the evaluation of the evidence.

(c) Discussion

(1) Washout Schedules

200. There are three separate references to samples taken from the Athlete in the London Washout Schedules:

EPD0019

8759	2729686	f	16.07.2012	Novogorsk	desoxymethyltestosterone 2300000
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EDP0021

9081	2729483	m	21.07.2012	desoxymethyltestosterone 300,000
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EDP0026

9474	2728713	f	1.021	Novogorsk	31.07.2012	tomorrow
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201. It is not disputed that these three samples (2729686, 2729483 and 2728713) were taken from the Athlete on the dates indicated in the documents (16, 21 and 31 July 2012). However, the Athlete denies that these samples contained any prohibited substances, including DMT. The Athlete also points to the male designation “m” in EDP0021 as evidence that the data contained in the London Washout Schedules is unreliable.
202. There are also six entries in the Moscow Washout Schedules (EDP0032) which refer to the Athlete by name:

EDP0032

Shkolina 28/06		methasterone (8 700 000)
Shkolina 06/07		methasterone metabolite 600 000
Shkolina 17/07		T/E = 0.8, methasterone long-term metabolite 40 000
Shkolina 23/07	Russia	methasterone metabolite 20 000
Shkolina 30/07	out-of-competition	methasterone metabolite 20 000 no change!
Shkolina 17/08	WC	clear

203. Finally, there is also an entry in the Clean Urine Bank (EDP0757) which refers to the Athlete by name:

EDP0757

X109	Shkolina	0.23	6098.22	12357.54	16.87	70.35	50.31	365.05	1.032	5.6
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(2) *Expert evidence*

204. The parties have each advanced expert evidence in separate fields: technical forensics and doping. With regard to the expert technical forensic evidence, the Panel favours that of Mr. Sheldon. Mr Rundt’s challenge to the authenticity of EDP0019, EDP0021, EDP0026, EDP0032 and EDP0757 is largely theoretical in nature. He did not – and in his view could not – identify any forensic trace of manipulation, forgery or fabrication. In essence, Mr. Rundt is inviting the Panel to disregard these documents on the basis that it is merely *possible* that an unknown person has forged, manipulated or fabricated these documents at some time and for reasons unknown.

205. Mr. Sheldon examined the file metadata relating to EDP0019, EDP0021, EDP0026, EDP0032 and EDP0757. This indicates that these documents were created contemporaneously (*i.e.* EDP0019, EDP0021 and EDP26 in July 2012; EDP0032 in July 2013 and EDP0757 in April 2015). In particular:
- a. Mr. Sheldon's report describes in detail the sequence of events by which EDP0019 was edited, saved and sent by email (in the form of EDP1168). The email attaching EDP1168 was sent from a Gmail address known to be that of Dr. Sobolevsky on the same day (EDP1167). Mr. Sheldon observes that this email contains "*the appropriate Gmail authentication*" and that "*the headers are legitimate and show no irregularities in timing*".
 - b. Mr. Sheldon notes that EDP0757 was attached to an email (EDO0756) in relation to which the date and timestamps all contain the appropriate third-party authentication. In his view, the email was created on 30 April 2015 (as indicated in the header) and the date and time stamps are the same as the date and time encoded into the message-ID. Mr Sheldon concludes that these indicate that the email is genuine.
206. As to the expert pharmacokinetic evidence, again the Panel favours the expert evidence filed on behalf of the IAAF. At the hearing, Prof. Graham was invited to, and did, withdraw his overarching conclusion that the Washout Schedules contain data that is not scientifically credible or "*impossible*". It became apparent during his oral testimony that significant parts of his report were premised on unstated assumptions with little basis in reality and that on at least one occasion, he referred to literature that did not support his stated findings. In contrast, Prof. Ayotte demonstrated a high level of expertise in relation to the testing of the two prohibited substances alleged to have been taken by the Athlete. On the basis of Prof. Ayotte's evidence, the Panel concludes that the data contained in EDP0019, EDP0021, EDP0026, EDP0032 referring to the Athlete is scientifically credible.
207. The Panel has also considered the evidence of Prof. Champod. It has not been alleged by the IAAF that sample 2808655 taken from the Athlete at the Moscow World Championships on 17 August 2013 contained any prohibited substances. Indeed, the Moscow Washout Schedules indicates that the Athlete's result was "*clear*" at the 2013 World Championships (referred to in EDP0032 as "*WC*"). It follows that Prof. Champod's conclusion, that sample 2808655 was probably not interfered with, does not assist the Athlete to a material degree.
- (3) *Discrepancies in the Washout Schedules*
208. The Athlete refers to various discrepancies in the EDP to the effect that these documents are not sufficiently reliable to substantiate ADRVs. The discrepancies relate to:
- a. differences in the level/concentration of certain prohibited substances (for example there are two entries in EDP0028 and EDP0029 which indicate a different level/concentration of methasterone in relation to two samples collected from two different athletes (not the Appellant); and

- b. instances where the sex of an athlete is incorrectly recorded (there are errors in both directions: female athletes is marked as “m” and male athletes marked as “f”).
209. Specifically in relation to the Athlete, one of her samples (number 2729483) appears in EDP0021 wherein it is inaccurately recorded that her sex is “m”.
210. Dr. Rodchenkov described the process by which he and Dr. Sobolevsky were involved in the preparation of the Washout Schedules. He stated that whereas EDP0029 was taken from his computer, this was not the case for EDP0028. The data was recorded manually; Dr. Rodchenkov stated that he printed out test results and entered figures into the tables, verifying his own work. In the view of the Panel, such an approach could well lead to the discrepancies identified by the Athlete.
211. The Panel recalls Prof. Ayotte’s evidence that the level or concentration of prohibited substances recorded in the Washout Schedules are merely “*abundance or peak heights*”. The Washout Schedules are only fit for the purpose of detecting a prohibited substance, but it is not possible to determine the specific amount of any substance allegedly used by an athlete. Likewise, when Dr. Rodchenkov was asked about the discrepancies in the two entries on EDP0028 and EDP0029, he stated that: “*the point of this was to determine which sample is positive and which sample is negative, this was a positive sample so it had to be substituted, my table [EDP0029] is correct, and the other table [EDP0028], at the very least, does not contradict my data*”.
212. The Panel considers that the discrepancies in EDP0028 and EDP0029 relating to the level/concentration of methasterone in two samples (not relating to the Athlete) do not suffice to discredit the EDP as a whole to such an extent that it is not “*reliable*” for the purposes of Rule 33.3 of the 2012 IAAF Rules. Such differences can readily be explained by the process by which the Schedules were prepared and edited. Were the Panel called upon to determine the precise level or concentration of a prohibited substance solely by reference to the Washout Schedules, it would not be able to do so. However, for the purposes of this case, the Panel is merely required to establish whether the Athlete has used any prohibited substances, the level or concentration of which is not material for the purposes of establishing liability (although it may be relevant in relation to sanction).
213. As to the inaccuracy in relation to the Athlete’s sex in EDP0021 and inaccuracies relating to other athletes’ sex recorded in the Washout Schedules, these can be attributed to data that was omitted (resulting in “m” being automatically recorded) or incorrectly recorded (in cases where an “f” appears in relation to male athletes). Again, the Panel does not consider that such discrepancies undermine the EDP documents to such an extent that they are not “*reliable*” for the purposes of Rule 33.3 of the 2012 IAAF Rules. The existence of different versions of the Washout Schedules and the minor discrepancies within (none of which relate to the Athlete) are indicative of a large-scale doping scheme involving various actors, at times located in different places.

(d) Conclusions on liability

214. In a case such as this where there are various non-analytical evidentiary elements, the Panel considers that these should be assessed separately and together. This requires an evaluation of the cumulative weight of the EDP insofar as it specifically relates to the Athlete. This approach is illustrated at paragraphs 107 and 108 of CAS 2015/A/4059, as follows:

“In Attorney General for Jersey v Edmond-O’Brien, in a decision of the Privy Council (2006 1 WLR 1485), Lord Hoffman, said this in criticism of the Jersey Court of Appeal’s judgment, which the Board overturned (para. 25):

Although they said that they had reviewed the evidence ‘separately and together’, there is little indication that they had regard to the cumulative weight of the various items of evidence, to each of which they had, sometimes not altogether plausibly, assigned a possible innocent explanation. It is in the nature of circumstantial evidence that single items of evidence may each be capable of an innocent explanation but, taken together, establish guilt beyond reasonable doubt.

Although that statement was articulated in the context of a criminal case, in the Panel’s view, Lord Hoffmann’s reasoning applies, mutatis mutandis, to the situation where a Tribunal is mandated to have ‘comfortable satisfaction’ before it can inculpate a sportsperson of a disciplinary offence, a fortiori where certain pieces of evidence are themselves suspicious”.

215. In CAS 2018/O/5713, this approach is aptly referred to as: *“a rope comprised of several cords: one strand of the cord might be insufficient to sustain the weight, but three strands together may be quite of sufficient strength”.*

216. Whereas counsel for the Athlete sought to distinguish CAS 2015/A/4059 on the facts, the Panel can see no reason why this approach is inapplicable in this case. Indeed, at the hearing, counsel for the Athlete described the evidence in this case as *“circumstantial”*. It is in the face of such circumstantial evidence that the Panel should consider each element individually, but also the global weight of the evidence as a whole.

217. The Panel recalls that the burden of proof is firmly on the IAAF to prove the alleged ADRVs. The applicable standard of proof is that of *“comfortable satisfaction”*. The IAAF may resort to *“any reliable means”* to prove the alleged ADRVs. Such *“reliable means”* includes circumstantial evidence, including the Washout Schedules (CAS 2015/A/4059). The Panel reiterates that its findings in this case are strictly limited to the evidence and submissions pertaining to the Athlete.

218. The Panel notes that EDP0019, EDP0021, EDP0026, EDP0032 and EDP0757 do not merely contain references to the Athlete (by sample number in EDP0019, EDP0021 and EDP0026, and by name in EDP0032 and EDP0757). These documents also contain *inter alia* specific dates, substances and abundances. They must be considered against the backdrop of the McLaren Reports and the Schmidt Report, as well as the corpus of EDP documents underpinning them. As to the reliability of the Washout Schedules, the Panel notes that certain matters recorded therein appear to have been subsequently shown to be true. For instance, there were 13 samples

(none of which relate to the Athlete) which re-tested positive for DHCMT after the 2012 London Olympic Games. Of those 13 athletes, 10 appear in the London Washout Schedules with indications that their samples contained DHCMT. Whereas none of those athletes are the Appellant, the Panel cannot ignore the existence of a general doping scheme and the fact that at least some of the data in the EDP documents has been independently corroborated.

219. The fact that the Athlete's sample collected at the 2012 Olympic Games subsequently re-tested negative in 2016 does not disprove the evidence relied on by the IAAF in this case. The purpose of the Washout Schedules was to ensure that athletes would not test positive at the 2012 Olympic Games and the 2013 World Championships. The finding that the Athlete's sample did not contain any prohibited substances at the time of the 2012 Olympic Games can be attributed to the success of the general doping scheme prevalent in Russia from 2011 to 2015. Likewise, the Panel does not accept that the Athlete's test results recorded in ADAMS can be relied upon to dislodge the information recorded in the EDP documents. The Panel has no doubt about the existence of a general doping scheme in Russia. Such a scheme could only succeed to the extent that it did with the benefit of falsified results being recorded in ADAMS.
220. Bearing in mind the expert evidence which has been accepted by the Panel, namely that there is no evidence of any forensic manipulation, forgery or fabrication, and that the data is scientifically credible, the majority of the Panel is comfortably satisfied that the evidence before it comprises reliable means to establish ADRVs. The Panel has carefully considered each and every entry in the EDP documents relating specifically to the Athlete. These documents were created, edited and communicated contemporaneously by persons heavily implicated in the general doping scheme in Russia and by those responsible for overseeing athletes' physical conditions. There is no evidence that these documents were fabricated or manipulated for the purpose of wrongfully implicating the Athlete. Whereas minor discrepancies exist within the EDP, these do not dislodge the reliability of the evidence insofar as it relates to the Athlete using prohibited substances. The Panel concludes that EDP0019, EDP0021, EDP0026, EDP0032 and EDP0757 are sufficiently reliable to form the basis of a finding that the Athlete has committed ADRVs. Moreover, it is difficult to see how these particular substances could have been used without the Athlete knowing that they were used or administered (although, for the purposes of liability, the Panel is not required to make a finding on whether the Athlete knowingly used the prohibited substances pursuant to Rule 32.2(b)(i) which states that use of a prohibited substance is established by way of strict liability). The Panel has come to this conclusion bearing in mind the particular seriousness of the allegations and the significant impact this will have on the Athlete.
221. On this basis, the majority of the Panel is comfortably satisfied that:
 - a. the Athlete used desoxymethyltestosterone (DMT) on or shortly prior to 16 July 2012; and
 - b. the Athlete used methasterone on or shortly prior to 28 June 2013.
222. Desoxymethyltestosterone (DMT) and methasterone are, and were at the relevant times, both prohibited under section S.1(a) of the WADA List of Prohibited Substances and Methods (the

“WADA List”). As such, they are prohibited at all times (not just in-competition). It follows that the Athlete has violated Rule 32.3(b) of the 2012 IAAF Rules.

B. Sanction

223. Prior to the Challenged Decision, the Athlete has never been found guilty of committing any ADRVs. It follows that the findings of the Panel in this Award (and likewise in the Challenged Decision) are the Athlete’s first violations.

224. Rule 40.2 of the 2012 IAAF Rules states that:

“The period of Ineligibility imposed for a violation of Rules 32.2(a) (Presence of a Prohibited Substance or its Metabolites or Markers), 32.2(b) (Use or Attempted Use of a Prohibited Substances or Prohibited Method) or 32.2(f) (Possession of Prohibited Substances and Prohibited Methods), unless the conditions for eliminating or reducing the period of Ineligibility as provided in Rules 40.4 and 40.5, or the conditions for increasing the period of Ineligibility as provided in Rule 40.6 are met, shall be as follows:

First Violation: Two (2) years’ Ineligibility”.

225. It follows that the starting point in this case is the imposition of a two-year period of ineligibility. The next two steps are to establish whether there exist:

- a. any conditions to eliminate to reduce the two-year period of ineligibility pursuant to Rules 40.4 and 40.5 of the 2012 IAAF Rules; or
- b. any conditions to increase the two-year period of ineligibility under Rule 40.6 of the 2012 IAAF Rules.

226. The Panel’s majority decision as regards reduction/elimination or increase of the applicable period of ineligibility is discussed below.

(a) Conditions for eliminating or reducing the period of ineligibility

227. The Athlete has not advanced any submissions for the purposes of eliminating or reducing the period of ineligibility under Rules 40.4 and 40.5 of the 2012 IAAF Rules. Nevertheless, the Panel considers it appropriate to consider *proprio motu* the applicability of these provisions.

228. Rule 40.4 of the 2012 IAAF Rules (“*Elimination or Reduction of Period of Ineligibility for Specified Substances under Specific Circumstances*”) applies where the Athlete (or another person) can “*establish how a Specified Substance entered [her] body or came into [her] Possession and that such Specified Substance was not intended to enhance the Athlete’s sport performance or mask the Use of a performance enhancing substance*”. Crucially, the prohibited substances which the Panel is comfortably satisfied that the Athlete has used fall within section S1(a) of the WADA List. As such, they are not “*Specified Substances*” for the purposes of Rule 40.4, with the result that Rule 40.4 does not apply in this case.

229. Rule 40.5 of the 2012 IAAF Rules (*“Elimination or Reduction of Period of Ineligibility Based on Exceptional Circumstances”*) sets out four exceptional circumstances which mandate the elimination or reduction of the period of ineligibility:
- a. Rule 40.5(a) applies if the Athlete (or another person) can establish *“No Fault or Negligence”*. This requires the Athlete to establish *“how the Prohibited Substance entered [her] system in order to have [her] period of Ineligibility eliminated”*.
 - b. Rule 40.5(b) applies if the Athlete (or another person) can establish *“No Significant Fault or Negligence”*. Again, this requires the Athlete to establish *“how the Prohibited Substance entered [her] system in order to have [her] period of Ineligibility reduced”*.
 - c. Rule 40.5(c) applies if the Athlete (or another person) provides *“Substantial Assistance to the IAAF, [her] National Federation, an Anti-Doping Organisation, criminal authority or professional disciplinary body”*.
 - d. Rule 40.5(d) applies if the Athlete (or another person) *“voluntarily admits the commission of an anti-doping rule violation”* within a specified timeframe.
230. As explained above, liability under Rule 32.2(b)(i) is a rule of strict liability. An ADRV is established notwithstanding any intent, fault, negligence or knowledge on the part of the Athlete. By contrast to the issue of liability under Rule 32.2(b)(i), the state of knowledge of the Athlete is relevant to the question of sanction under Rule 40.
231. The Athlete in this case expressly denies using any prohibited substances and – contrary to the Panel’s findings on liability – does not accept the veracity of the data relating to her in EDP0019, EDP0021, EDP0026, EDP0032 and EDP0757. The Athlete has not adduced any evidence as to why her name or sample numbers appear in these documents. The Athlete merely advances a bare denial: she states that she did not use any prohibited substances and has no idea why or how her name and sample numbers appear in the EDP. It follows from this that none of the exceptional circumstances in Rule 40.5 are applicable in this case. The Athlete:
- a. steadfastly denies committing any ADRVs (ruling out the application of Rule 40.5(d));
 - b. has not advanced any evidence as to how the alleged prohibited substances entered her body (rendering Rule 40.5(a) and (b) inapplicable on the basis that these rules expressly require the Athlete to *“establish how the Prohibited Substance entered [her] system in order to have the period of Ineligibility”* eliminated or reduced); and
 - c. has not provided substantial assistance to the IAAF, RUSAF or any other anti-doping organisation, criminal authority or professional disciplinary body (discounting Rule 40.5(c)).
232. The Panel is bound by the terms of the 2012 IAAF Rules; it cannot look outside of these rules in seeking to establish conditions to eliminate or reduce the period of ineligibility.

(b) Conditions for increasing the period of ineligibility

233. Having established that none of the conditions to eliminate or reduce the period of ineligibility apply, the Panel must now consider whether there are any conditions present mandating an increase pursuant to Rule 40.6 of the 2012 IAAF Rules. The Athlete argues – in the alternative to the arguments on the issue of liability – that there are no such conditions present and that as a result the four-year period of ineligibility imposed in the Challenged Decision should be replaced by a two-year period.

234. Rule 40.6 provides that:

“If it is established in an individual case involving an anti-doping rule violation other than violations under Rule 32.2(g) (Trafficking or Attempted Trafficking) and Rule 32.2(h) (Administration or Attempted Administration) that aggravating circumstances are present which justify the imposition of a period of Ineligibility greater than the standard sanction, then the period of Ineligibility otherwise applicable shall be increased up to a maximum of four (4) years unless the Athlete or other Person can prove to the comfortable satisfaction of the hearing panel that he did not knowingly commit the anti-doping rule violation.

(a) *Examples of aggravating circumstances which may justify the imposition of a period of Ineligibility greater than the standard sanction are: the Athlete or other Person committed the anti-doping rule violation as part of a doping plan or scheme, either individually or involving a conspiracy or common enterprise to commit anti-doping rule violations; the Athlete or other Person used or possessed multiple Prohibited Substances or Prohibited Methods or used or possessed a Prohibited Substance or Prohibited Method on multiple occasions; a normal individual would be likely to enjoy performance-enhancing effects of the anti-doping rule violation(s) beyond the otherwise applicable period of Ineligibility; the Athlete or other Person engaged in deceptive or obstructing conduct to avoid the detection or adjudication of an anti-doping rule violation. For the avoidance of doubt, the examples of aggravating circumstances referred to above are not exclusive and other aggravating factors may also justify the imposition of a longer period of Ineligibility”.*

(b) *An Athlete or other Person can avoid the application of this Rule by admitting the anti-doping rule violation as asserted promptly after being confronted with the anti-doping rule violation (which means no later than the date of the deadline given to provide a written explanation in accordance with Rule 37.4(c) and, in all events, before the Athlete competes again”.*

235. The Panel observes that the list of aggravating features in Rule 40.6(a) is not exhaustive; this is clear from the last sentence of the provision.

236. Rule 40.7(d)(i) of the 2012 IAAF Rules expressly recognises that *“the occurrence of multiple violations may be considered as a factor in determining aggravating circumstances (Rule 40.6)”*.

237. The IAAF invites the Panel to maintain the maximum four-year period imposed by the Sole Arbitrator at first instance on the basis of the following alleged aggravating circumstances:

- a. the Athlete used a range of exogenous anabolic steroids on multiple occasions;

- b. she featured in two Washout Schedules programs the purpose of which was to protect athletes from doping (she provided unofficial samples and those of her official samples which tested positive were falsely reported as being clean); and
 - c. the washout testing was carried out in the run up to the most important athletics events (the 2012 London Olympic Games and the 2013 World Championships in Moscow).
238. The Athlete argues that “*particularly cogent*” evidence is required and that aggravating circumstances have not been established in her individual case. She further argues – by reference to a number of authorities – that this case does not merit the maximum penalty of four years’ ineligibility.
239. For the reasons explained above, the Panel has approached its task with a degree of anxious scrutiny. This flows from the fact that the ADRVs in this case are proved on the basis of non-analytical evidentiary elements. The Panel bears in mind that no evidence has been adduced by the IAAF as to the state of mind of the Athlete. Rules 32.2(b)(i) and 40.2 of the 2012 IAAF Rules impose a two-year period of ineligibility as a starting point on the basis of strict liability (see above: “*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 a Prohibited Method*”). As such, a two-year period of ineligibility is the inexorable starting point. The Panel has already established that none of the conditions for eliminating or reducing the period of ineligibility apply in this case. The next and final stage in the analysis is to examine the potential aggravating circumstances which may increase the period of ineligibility pursuant to Rule 40.6 of the 2012 IAAF Rules.
240. In the view of the Panel, there is no reliable evidence as to what was known by the Athlete at the time of the ADRVs. Whereas the Panel is comfortably satisfied that the Athlete used prohibited substances (for the reasons explained above), it is not known precisely when and how the prohibited substances were used. Without any evidence as to the state of knowledge of the Athlete at the time of ADRVs, the Panel cannot be satisfied to the required standard that she was aware that she was part of a wider “*doping plan or scheme*” orchestrated by Dr. Rodchenkov, his colleagues and collaborators. The Panel finds that although such a doping plan or scheme did exist in Russia at the relevant time, it has not been established that the Athlete was a knowing participant. It may be argued that due of the nature prohibited substances in this case (anabolic agents), the Athlete must have known of their use. However, there is no evidence before the Panel to demonstrate that the Athlete knew that she was part of a wider doping plan or scheme, either individually or involving a conspiracy or common enterprise. In these circumstances, where it cannot be shown that the Athlete was aware of the existence of a wider doping plan or scheme at the time the prohibited substances were used, the Panel considers that the mere existence of a plan or scheme does not, of itself, amount to an aggravating circumstance under Rule 40.6(a) of the 2012 IAAF Rules. This flows from the language of Rule 40.6(a): where such a scheme exists, but it cannot be proved that the Athlete is aware of it, it is difficult to see how the ADRV can be committed “*as part*” of that scheme “*either individually or involving a conspiracy or common enterprise*”.

241. Limiting itself to the evidence that is reliable, the Panel is satisfied that the Athlete used prohibited substances (DMT and methasterone) on at least two occasions, on or shortly prior to 16 July 2012 and on or shortly prior to 28 June 2013. Moreover, the timing of the ADRVs is such that it was intended to give the Athlete an advantage – at least – for the purposes of the 2012 London Olympic Games and the 2013 Moscow World Championships.
242. The Athlete has directed the Panel’s attention to cases where prohibited substances were used on multiple occasions, but the period of ineligibility was less than four years. For instance, a sanction of three years ineligibility was imposed in circumstances where an athlete used a prohibited substance or method repeatedly in correlation with two major athletics events (CAS 2014/A/3561 & 3614).
243. At first instance, the Sole Arbitrator imposed the maximum sanction of four years’ ineligibility. The Panel recognises that it should not interfere lightly with a well-reasoned first instance decision (CAS 2010/A/2283; CAS 2011/A/2518). However, the Panel deems that the maximum sanction is not merited in this case. The only aggravating feature which the Panel considers established in this case is that the Athlete has used two prohibited substances on two occasions. No other aggravating features have been established by the IAAF: it is not known in what circumstances these substances were used.
244. In these circumstances – where only one aggravating circumstance can be established amounting to the use of prohibited substances on two separate occasions – the Panel considers that only a moderate increase of nine months is appropriate under Rule 40.6 of the 2012 IAAF Rules. As such, the Sole Arbitrator’s imposition of a four-year period of ineligibility in the Challenged Decision is set aside and replaced with a period of ineligibility of two years and nine months.

C. Disqualification

245. Rule 40.8 of the 2012 IAAF Rules provides that:

“In addition to the automatic disqualification of the results in the Competition which produced the positive sample under Rules 39 and 40, all other competitive results obtained from the date the positive Sample was collected (whether In-Competition or Out-of-Competition) or other anti-doping rule violation occurred through to the commencement of any Provisional Suspension or Ineligibility period shall be Disqualified with all of the resulting Consequences for the Athlete including the forfeiture of any titles, awards, medals, points and prize and appearance money”.

246. The Athlete argues that the purpose of disqualification of results is not to punish, but to correct unfair advantage and remove tainted performances from the record (CAS 2017/A/5021; CAS 2016/O/4463). Rule 40.8 of the 2012 IAAF Rules contains an “implicit exception of fairness” by which the Panel should consider all relevant circumstances, including the nature and severity of the infringement, the lapse of time between ADRVs, the effect of the ADRVs on the results and the absence of subsequent abnormalities or further ADRVs. It is argued that none of the Athlete’s results should be disqualified because she did not draw an unfair advantage from the ADRVs.

247. In the alternative, the Athlete argues that the principle of proportionality requires a reasonable balance is struck between the misconduct and the sanction imposed (CAS 2015/A/4008). As such, the period of disqualification should not extend over periods where there is no clear evidence that the Athlete used prohibited substances. The Athlete invites the Panel to limit the period of disqualification to results obtained between 16 July 2012 until 17 August 2013.
248. In the Challenged Decision, the Sole Arbitrator imposed a period of disqualification starting from 16 July 2012 (the date of the first ADRV).
249. The Panel concurs that the general principle of fairness is enshrined in Rule 40.8 of the 2012 IAAF Rules. This encompasses the principle of proportionality. The Panel is mindful of the effect that disqualification of results will have on the Athlete, including the forfeiture of titles, awards, medals, points, and prizes, as well as appearance money. The sanction to be imposed for an ADRV must be proportionate considering both the length of the ineligibility period and the disqualification of results.
250. In cases where an athlete has used prohibited substances for an extended period of time, CAS panels have disqualified results obtained over a number of years. (CAS 2014/A/3561 and CAS 2014/A/3614; CAS 2014/A/3668). At the same time, CAS panels frequently applied the principle of fairness and allowed results to remain in force where there is no evidence that the athlete committed ADRVs during the period of time starting from the alleged ADRV up to the period of ineligibility.
251. The Panel retains a wide discretion and is guided by the principles of fairness and proportionality. The Panel is also mindful that the Athlete's period of ineligibility has been reduced by one year and three months for the reasons explained above.
252. As a starting point, the Panel has no hesitation in disqualifying the Athlete's results for the whole period during which the ADRVs were recorded in the EDP documents (*i.e.* from 16 July 2012 until 30 July 2013). This is a relatively short period of time during which there are no less than seven adverse findings recorded in EDP0019, EDP0021, EDO0026 and EDP0032. The evidence of Prof. Ayotte is that anabolic steroids may improve an athlete's performance in a number of different ways, including speeding up recovery after injury, enabling longer periods of training, increasing stamina and providing more energy. The Panel is satisfied that the Athlete would have gained an advantage even after the date of the last positive finding recorded in EDP0028 (30 July 2013). It would not be in the interests of fairness for the Athlete's results obtained immediately after 31 July 2013 to remain undisturbed. The Panel considers that the principles of fairness and proportionality require the disqualification of her results up to the end of the 2014.
253. The Panel therefore decides that the three-year and 13-day period of disqualification imposed by the Sole Arbitrator in the Challenged Decision is hereby reduced to a period of two years, five months and 16 days, starting from 16 July 2012 and terminating on 31 December 2014 (inclusive).

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. The Statement of Appeal filed by Ms. Svetlana Shkolina with the Court of Arbitration for Sport (CAS) against the International Association of Athletics Federations (IAAF) on 22 February 2019 is partially upheld.
2. The decision of the Sole Arbitrator in CAS 2018/O/5667 *IAAF v. RUSAF & Svetlana Shkolina* is set aside.
3. Ms. Svetlana Shkolina is suspended for a period of two (2) years and nine (9) months, starting from 1 February 2019.
4. All results earned by Ms. Svetlana Shkolina from 16 July 2012 to 31 December 2014 (inclusive) (two (2) years, five (5) months and 16 days are disqualified), with all of the resulting consequences, including forfeiture of any titles, awards, medals, points, prizes and appearance money.
5. (...).
6. (...).
7. All further requests for relief are dismissed.