



Arbitration CAS 2018/O/5822 International Association of Athletics Federations (IAAF) v. Russian Athletic Federation (RUSAF) & Mariya Ponomareva, award of 11 April 2019

Panel: Mr Hans Nater (Switzerland), Sole Arbitrator

Athletics

Doping (Athlete's Biological Passport)

Principle "tempus regit actum" and transitional provision providing otherwise

CAS jurisdiction based on Rule 38.3 2016 IAAF Rules

ABP as appropriate means of evidence

Determination of the applicable sanction

1. The principle "*tempus regit actum*" provides – as a general rule – that the substantive aspects of a contract keep being governed by the law in force at the time when the contract was signed, while any claim should be brought and any dispute should be settled in accordance with the procedural rules in force at the time of the claim. However, the principle "*tempus regit actum*" does not apply if transitional provisions provide otherwise. The predominant principle with regard to transitional provisions in procedural rules is the one of legal certainty. The parties of legal proceedings must have confidence that procedural rules do not change *during the course* of the proceedings. A party who intends to initiate new proceedings must, therefore, be aware of the procedural rules that apply to these proceedings. This is why the principle "*tempus regit actum*" is considered to be more appropriate for defining the law to the merits and not for defining the law to the proceedings.
2. Where the athlete is an International-Level Athlete and the national federation is prevented from conducting a hearing in the athlete's case within the deadline set by Rule 38.3 of the applicable IAAF Rules, the IAAF is permitted to refer the matter directly to a single arbitrator appointed by CAS, subject to an appeal to CAS in accordance with Rule 42 of the IAAF Rules. The CAS Rules applicable to the Appeal Arbitration Procedure shall apply.
3. The Athlete's Biological Passport (ABP) is a reliable and accepted means of evidence to assist in establishing anti-doping rule violations. However, if the observed blood values of an athlete's ABP deviate from normal values and if they cannot be explained pathologically, there is not automatically a high probability of doping. From the mere fact that an athlete cannot provide a credible explanation for the deviations in his or her ABP, it cannot automatically be concluded that an anti-doping rule violation has been committed. The deviations in the ABP are to be interpreted by experts called to put into the balance various hypothesis and circumstances that could explain the abnormality in the profile values. In other words, a distinction should be made between a mere "quantitative" evaluation and a "qualitative" assessment of the

evidence. Even in the absence of a credible non-doping related explanation for the abnormal values and sequence in the athlete's ABP, the abnormal values may not necessarily be explained by doping. In order to affirm a doping violation pursuant to the applicable rules, a CAS panel needs to be convinced to its comfortable satisfaction that the abnormal values are caused by a "doping scenario", which does not necessarily derive from the quantitative information provided by the ABP, but requires a qualitative interpretation of the experts and possible further evidence.

4. **Blood doping practices can only be committed intentionally. Blood manipulation by using prohibited substances or prohibited methods do not constitute Specified Substances within the meaning of the applicable IAAF Rules. Therefore the conditions for the application of a sanction of two years in case of an anti-doping rule violation are not met.**

I. PARTIES

1. The International Association of Athletics Federations (the "Claimant" or the "IAAF") is the world governing body for the sport of Athletics, established for an indefinite period with legal status as an association under the laws of Monaco. The IAAF has its registered seat in Monaco.
2. The Russian Athletic Federation (the "First Respondent" or the "RUSAF") is the national governing body for the sport of Athletics in Russia, with its registered seat in Moscow, Russia. The RUSAF is a member federation of the IAAF and currently suspended from membership.
3. Ms Mariya Ponomareva (the "Second Respondent" or the "Athlete") is a Russian long-distance athlete. She is an International-Level Athlete according to the IAAF Competition Rules 2016-2017 (the "2016 IAAF Rules").

II. OVERVIEW OF THE CASE

4. This case concerns a claim by the IAAF against an International-Level Russian Athlete for violating IAAF Rule 32.2(b) of the 2016 IAAF Rules ("Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method"). The RUSAF has been included in the claim as the First Respondent, as the RUSAF has not been able to conduct the hearing process due to its suspension.
5. The case raises complex evidentiary issues in relation to the Athlete's Biological Passport ("ABP"). The Parties' submissions in particular draw upon the reliability of the reports from the experts appointed by the IAAF analysing the abnormalities in the ABP.

III. FACTUAL BACKGROUND

6. Below is a summary of the main relevant facts, as established on the basis of the Parties' written and oral submissions and the evidence examined in the course of the present arbitration proceedings and during the hearing. This background is set out for the sole purpose of providing a synopsis of the matter in dispute. Additional facts may be set out, where relevant, in connection with the legal discussion that follows. While the Sole Arbitrator has considered all the facts, allegations, legal arguments and evidence submitted by the Parties in the present proceedings, he refers in his award only to the submissions and evidence he considers necessary to explain his reasoning.
7. The Athlete has been charged with violating Rule 32.2(b) of the IAAF Rules "Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method".
8. The evidence of the Athlete's alleged anti-doping rule violation(s) is based on the following pieces of evidence:
9. The ABP of the Athlete.
 - i) Two expert reports from the experts appointed by the IAAF.
 - ii) The testimonies of the experts appointed by the IAAF during the hearing.
10. From 14 December 2014 until 18 October 2017, the IAAF collected 19 ABP blood samples from the Athlete, 15 of which were valid and used in the evaluation process. Each of the samples was analysed by a laboratory accredited by the World Anti-Doping Agency ("WADA") and logged in the Anti-Doping Administration & Management System ("ADAMS") using the Adaptive Model, a statistical model that calculates whether the reported HGB (haemoglobin concentration), RET% (percentage of immature red blood cells – reticulocytes) and OFF-score (a combination of HGB and RET%) values fall within an athlete's expected distribution.
11. The registered values for HGB, RET% and OFF-score in the Athlete's respective samples are as follows:

No.	Date of Sample	HGB (g/dL)	RET%	OFF-score
1.	15 December 2014	13.5	2.25	45.00
2.	28 January 2015	12.7	2.64	29.50
3.	3 July 2015	14.6	1.34	76.50
4.	8 July 2015	15.0	0.66	101.30
5.	11 October 2015 (invalid sample)	15.0	1.15	85.70
6.	15 October 2015	14.2	0.82	87.70
7.	18 February 2016 (invalid sample)	11.2	2.56	16.00
8.	23 June 2016	13.2	1.31	63.30
9.	24 June 2016	13.6	1.20	70.30

10.	19 July 2016	13.6	1.18	70.80
11.	21 September 2016	13.3	2.73	33.90
12.	28 October 2016	13.5	1.59	59.30
13.	30 November 2016	11.9	1.81	38.30
14.	9 January 2017 (invalid sample)	11.9	1.34	49.50
15.	16 February 2017	13.7	1.41	65.80
16.	20 February 2017 (invalid sample)	13.7	1.47	64.30
17.	23 August 2017	14.0	1.00	80.00
18.	27 September 2017	13.4	1.66	56.70
19.	18 October 2017	11.3	1.05	51.50

12. According to the IAAF, sample 5 of 11 October 2015, sample 7 of 18 February 2016, sample 14 of 9 January 2017 and sample 16 of 20 February 2017, all shaded in light grey in the above table, are invalid.

13. The Athlete's ABP was submitted to a panel of experts for review on an anonymous basis. The expert panel comprised three experts with knowledge in the field of clinical haematology (diagnosis of blood pathological conditions), laboratory medicine and haematology (assessment of quality control data, analytical and biological variability and instrument calibration) and sports medicine and exercise physiology: Prof. Yorck Olaf Schumacher, Prof. Giuseppe d'Onofrio and Prof. Michel Audran (the "Expert Panel"). The Expert Panel issued a first joint opinion dated 12 December 2017 (the "First Joint Expert Opinion") and concluded as follows after having analysed the Athlete's ABP profile on an anonymous basis:

"Based on these facts and the information available to date, it is our unanimous opinion that in the absence of an appropriate physiological explanation, the likelihood of the abnormalities described above being due to blood manipulation, namely the artificial increase of red cell mass using erythropoiesis stimulating substances and blood transfusion strategy, is high. On the contrary, the likelihood of environmental factors or a medical condition causing the described pattern is low.

We therefore conclude that it is highly likely that a prohibited substance or a prohibited method has been used and that it is highly unlikely that the passport is the result of any other cause".

14. On 14 December 2017, the Anti-Doping Administrator of the IAAF Athletics Integrity Unit ("AIU") informed the Athlete that the AIU has initiated an investigation against her on behalf of the IAAF into a potential anti-doping rule violation following receipt of an Adverse Passport Finding report issued by the IAAF's Athlete Passport Management Unit (APMU) pursuant to IAAF Anti-Doping Regulations. The Athlete was also informed of the Expert Panel's unanimously expressed opinion upon reviewing her ABP that it was highly likely that the Athlete have used a prohibited substance or a prohibited method and unlikely that the ABP was the result of any other cause. Consequently, the AIU informed the Athlete that it is considering bringing charges against the Athlete for an anti-doping rule violation under Article 2.2 of the IAAF Anti-Doping Rule (ADR) (use or attempted use of a prohibited substance or a prohibited method) but that such charges would not be brought until she had been given

the opportunity to provide an explanation for the alleged abnormalities. A deadline until 28 December 2017 was granted for the Athlete to provide her explanations.

15. On 17 January 2018, and within the deadline extended upon the Athlete's request, the Athlete sent her explanations for the abnormalities in her ABP profile together with related medical documentation. The Athlete submitted the following claims explaining her blood values:
 - (i) Variations in her haemoglobin level since childhood, exacerbated by various pathologies.
 - (ii) Possible analytical inconsistencies in the analysis of samples 3 and 4.
 - (iii) Menstrual and other gynaecological disorders at the time of samples 1, 2 and 13 and in September 2016.
 - (iv) Cytomegalo Virus diagnosis in December 2017.
16. On 22 February 2018, the Expert Panel issued a second joint report (the "Second Joint Expert Opinion"), in which the Athlete's explanations were considered, concluding as follows:

"In summary, the explanations provided by the Athlete at this stage do not explain the abnormalities in her passport. We therefore confirm our previous opinion that it is highly unlikely that this profile is the result of a normal physiological or pathological condition, and that it is highly likely that it was caused by the use of prohibited substances or prohibited methods".
17. On 8 March 2018, the AIU, on behalf of the Claimant, asserted to the Athlete that there was sufficient evidence that the Athlete had committed an anti-doping rule violation by using prohibited substances and charged her with a violation of Rule 32.2(b) of the 2016 IAAF Rules. The AIU also informed the Athlete that she was provisionally suspended with immediate effect by AIU, on behalf of the Claimant, from all competitions and activities in athletics pending resolution of her case in accordance with Rule 38.2 of the 2016 IAAF Rules. Moreover, the AIU informed the Athlete that the IAAF has taken over responsibility for coordinating the disciplinary proceedings involving Russian international-level athletes and, as a result, her case would be referred to the Court of Arbitration for Sport ("CAS") for adjudication. The Athlete was offered to choose until 22 March 2018 between the following two procedures:
 - (a) *Before a Sole Arbitrator of the CAS sitting as a first instance hearing panel pursuant to IAAF Rule 38.3. The case will be prosecuted by the IAAF and the decision will be subject to an appeal to CAS in accordance with IAAF Rule 42; or*
 - (b) *Before a CAS Panel as a single hearing, with the agreement of WADA and any other anti-doping organisations with a right of appeal, in accordance with IAAF Rule 38.19. The decision rendered will not be subject to an appeal (save to the Swiss Federal Tribunal)".*
18. On 19 March 2018, the AIU denied the Athlete's request for an extension of the aforementioned deadline for "1 – 1.5 months" in order to collect more information, and to

provide additional explanations in response to the Second Joint Expert Opinion, reminded the Athlete on her deadline of 22 March 2018 and informed her that, should she request a hearing, she would have the opportunity and the time to provide a full explanation and supplementary supporting evidence for her adverse passport finding.

19. On 20 March 2018, the Athlete again requested an extension of the aforementioned deadline, which was denied by the AIU for the same reasons.
20. On 22 March 2018, the Athlete submitted that she was not provided with the copies of the relevant rules and regulations, and asked for a new time limit to be established for choosing which of the CAS procedures, if any, to opt for.
21. On 28 March 2018, the AIU “exceptionally” agreed to extend the Athlete’s deadline until 4 April 2018 to request a hearing in writing and to choose the relevant CAS procedure.
22. On 4 April 2018, the Athlete requested that her case be heard before a CAS Panel as a single hearing pursuant to Rule 38.19 2016 IAAF Rules.
23. While the First Respondent and the Russian Anti-Doping Agency (“RUSADA”) consented to the case of the Second Respondent being referred to CAS for a single hearing pursuant to Rule 38.19 of the 2016 IAAF Rules, the WADA informed the AIU that, given the complexity of each ABP case, it would favour the possibility to preserve its right of appeal and therefore to have this case heard in a lower instance with a possibility to appeal further to the CAS. Consequently, the WADA withheld its consent to the case being heard by the CAS as a sole instance.

IV. PROCEEDINGS BEFORE THE COURT OF ARBITRATION FOR SPORT

24. On 2 July 2018, the IAAF lodged a Request for Arbitration with CAS in accordance with Article R38 of the CAS Code of Sports-related Arbitration (the “CAS Code”). The IAAF informed CAS that its Request for Arbitration was to be considered as its Statement of Appeal and Appeal Brief and requested the matter to be submitted to a sole arbitrator. The Request for Arbitration contained a statement of the facts and legal arguments and included the following requests for relief:

- “(i) CAS has jurisdiction to decide on the subject matter of this dispute;*
- (ii) The Request for Arbitration of the IAAF is admissible.*
- (iii) The Athlete be found guilty of an anti-doping rule violation in accordance with Rule 32.2(b) of the IAAF Rules.*
- (iv) A period of ineligibility of four years be imposed upon the Athlete, commencing on the date of the (final) CAS Award. Any period of provisional suspension effectively served by the Athlete before the entry into force of the CAS award shall be credited against the total period of ineligibility to be served.*

- (v) *All competitive results obtained by the Athlete from 8 July 2015 through to the commencement of her provisional suspension on 8 March 2018, shall be disqualified, with all resulting consequences (including forfeiture of any titles, awards, medals, profits, prizes and appearance money).*
- (vi) *The arbitration costs be borne entirely by RUSAF in accordance with Rule 38.3 of the 2016 IAAF Rules or, subsidiarily, by the Respondents jointly and severally.*
- (vii) *The IAAF is awarded a significant contribution to its legal costs”.*
25. On 11 July 2018, the CAS Court Office initiated the present arbitration and specified that, as requested by the IAAF and pursuant to Rule 38.3 of the 2016 IAAF Rules, the present arbitration had been assigned to the CAS Ordinary Arbitration Division to be dealt with according to the Appeals Arbitration Procedure rules (Articles R47 *et seq.* of the CAS Code). The Respondents were invited to submit their Answer within 30 days from receipt of this letter by courier.
26. On 9 and 22 August 2018, in accordance with Article R54 of the CAS Code, and on behalf of the President of the CAS Ordinary Arbitration Division, the CAS Court Office informed the Parties that the arbitral tribunal appointed to decide the present matter was constituted by:
- Dr Hans Nater, Attorney-at-Law, Zurich, Switzerland.
27. On 13 September 2018, the CAS Court Office informed the Parties that to date it has not received the Respondents’ Answers, or any communication from the Respondents in this regard, and that in accordance with Article R55 of the CAS Code, if the Respondents fail to submit their Answers by the stated limit, the Panel may nevertheless proceed with the arbitration and deliver an award. In addition, the CAS Court Office reminded the Parties that pursuant to Article 56 of the CAS Code, the Parties shall not be authorized to supplement or amend their requests or their argument, nor to produce new exhibits, nor to specify further evidence on which they intend to rely, after the submission of the Appeal Brief and of the Answer, unless they agree or the Sole Arbitrator orders otherwise on the basis of exceptional circumstances. Moreover, the Parties were invited to inform the CAS Court Office by 20 September 2018 whether they prefer a hearing to be held in this matter or for the Sole Arbitrator to issue an award based solely on the Parties’ written submission.
28. On 14 September 2018, Mr Artem Patsev informed the CAS Court Office that the Second Respondent has instructed him to represent the Athlete in these proceedings. Given that she was provided with the Claimant’s Request for Arbitration on 13 September 2018 only, Mr Artem Patsev requested an extension of the deadline for the Second Respondent to prepare and file her Answer brief until 13 October 2018.
29. On 19 September 2018, the CAS Court Office invited the Claimant and the First Respondent to comment on the Second Respondent’s request to extend her deadline to file her Answer brief. A Party’s silence would be deemed to be an agreement to such request. In case of silence, the issue would be decided by the Sole Arbitrator.

30. On 20 September 2018, the Claimant did not object to the Athlete being allowed to provide her written submissions by 13 October 2018. In addition, the Claimant expressed its preference for a hearing after receipt of the Athlete's written submission.
31. On 21 September 2018, the Second Respondent was granted a deadline until 13 October 2018 to provide her Answer to the CAS Court Office. In addition, the CAS Court Office informed the Claimant that it will be granted a new deadline to express its preference for a hearing upon receipt of the Athlete's written submission.
32. On 10 October 2018, the Second Respondent requested the IAAF to produce the laboratory documentation packages ("LDPs") for the samples 13 and 19, in order to allow her experts to evaluate the reliability of the results obtained and reported by the relevant laboratory. In addition, the Second Respondent requested that her deadline to submit her Answer be extended for a period of two weeks upon receipt of the two aforementioned LDPs. Moreover, the Second Respondent requested to bifurcate the proceedings and to decide on jurisdiction first.
33. On 16 October 2018, the Claimant acknowledged to provide the LDPs for samples 13 and 19 from the Moscow laboratory, assuming that the laboratory be in a position to provide said LDPs. It did not object to the request by the Second Respondent to extend the deadline to file her Answer falling two weeks after receipt of the said LDPs. However, the Claimant objected to the Second Respondent's proposal for a bifurcation of the proceedings.
34. On 22 October 2018, the Claimant provided a link to download the LDPs regarding the Athlete's samples 13 and 19.
35. On 24 October 2018, the CAS Court Office invited the Second Respondent to submit her Answer to the CAS Court Office within two weeks, and informed the Parties of the decision of the Sole Arbitrator to dismiss the Second Respondent's request for a bifurcation of the proceedings at this stage.
36. On 26 October 2018, the Second Respondent filed an "*application for bifurcation and to strike the procedure (based on lack of jurisdiction)*" and submitted the following motions:
 - i. this procedure to be bifurcated so that the issue of the jurisdiction be determined on preliminary basis since – if the Second Respondent is right with regards to the jurisdiction – it would be dispositive;*
 - ii. that deadlines for filing the Second Respondent's Answer brief (on the merits) be suspended pending a decision from the Sole Arbitrator on the issue of jurisdiction;*
 - iii. this procedure to be terminated due to lack of CAS's jurisdiction to hear it as a first instance body, and*
 - iv. this case to be referred to the due instance, namely to the IAAF Disciplinary Tribunal, for consideration and making a decision".*
37. On 8 November 2018, the Second Respondent's extension dated 7 November 2018 to file the Answer was granted in view of the consent by Claimant.

38. On 15 November 2018, the Second Respondent filed her Answer in accordance with Article R55 of the CAS Code and submitted the following requests for relief:

“92. The Second Respondent respectfully requests the Sole Arbitrator to rule that:

- i. both Application of 26 October 2018 (defence of lack of jurisdiction) and this Answer Brief (defence on the merits) are admissible;*
- ii. this procedure be terminated due to lack of CAS’s jurisdiction to hear it as a first instance body, and this case to be referred to the due instance, namely to the IAAF Disciplinary Tribunal, for consideration and making a decision;*

Alternatively, if the Sole Arbitrator confirms the CAS’s jurisdiction as a first instance body and proceeds further with this case, the Second Respondent respectfully requests the Sole Arbitrator to rule that:

- iii. the claims raised by the IAAF are dismissed and no sanctions are imposed on Ms Maria Ponomaryova;*
- iv. the IAAF shall bear the entirety of the arbitrator costs;*
- v. the IAAF is ordered to pay Ms Maria Ponomaryova a fair contribution towards the legal and other costs incurred by her in the framework of this proceedings, in an amount to be determined at the discretion of the Sole Arbitrator”.*

39. On 21 November 2018, the CAS Court Office, in accordance with Article R55(5) of the CAS Code, invited the Claimant to file a written submission limited to the Athlete’s defence of lack of jurisdiction within one week upon receipt of this letter.

40. On 28 November 2018, the Claimant filed its submission on CAS jurisdiction and submitted that *“CAS manifestly has jurisdiction to hear and determine this dispute, and the objection to jurisdiction must be dismissed”*. In addition, the Claimant requested that a hearing be held in this matter. Moreover, the Claimant informed the CAS Court Office that it was still in the process of reviewing the Athlete’s Answer on the merits and was considering whether it would be necessary to seek leave file further submissions and/or evidence.

41. On 4 December 2018, the CAS Court Office informed the Parties that the Sole Arbitrator defers the decision on jurisdiction and decided to join it to the merits of the case, should he dismiss the Athlete’s defence of lack of jurisdiction. In addition, several dates for the hearing were proposed to the Parties. Moreover, the Claimant was invited to file its possible request to seek leave to file further submissions and/or evidence until 11 December 2018.

42. On 14 December 2018, the Parties and their witnesses were called to appear at a hearing on 16 January 2019 at the CAS Court Office.

43. On 19 December 2018, within the extended deadline, the Claimant provided several Exhibits addressing some factual issues raised by the Athlete.

44. On 21 December 2018, the Claimant and the Second Respondent informed the CAS Court Office of the persons attending the hearing.
45. On 31 December 2018, the Second Respondent, referring to the Claimant's letter dated 21 December 2018, objected to the Claimant's proposal to hear the expert witnesses in an experts' conference ("hot-tubbing").
46. On 10 January 2019, a telephone conference was held with the Parties in order to prepare a tentative Hearing Schedule.
47. On 15 and 16 January 2019 respectively, the Claimant and the Second Respondent returned duly signed copies of the Order of Procedure of the CAS Court Office. The Athlete, in her handwritten notes on the Order of Procedure, observed that she never agreed to refer this dispute to the CAS but rather insisted on referring this matter to the IAAF Disciplinary Tribunal first. She agreed to the Order of Procedure without prejudice to her defence of lack of jurisdiction of the CAS.
48. On 16 January 2019, a hearing was held in Lausanne, Switzerland. At the outset of the hearing, all Parties confirmed that they had no objection to the constitution and composition of the arbitral tribunal.
49. In addition to the Sole Arbitrator, Ms Andrea Sherpa-Zimmermann, Counsel to the CAS, and Dr Martin Rauber, *Ad hoc* Clerk, the following persons attended the hearing:

For the IAAF:
 - Mr Ross Wenzel, Counsel;
 - Mr Anton Sotir, Counsel;
For the Athlete:
 - Mr Artem Patsev, Counsel;
 - Mr Alexander Ponomaryov, Interpreter.
50. The Sole Arbitrator heard evidence of the following persons:
 - Prof. York Olaf Schumacher, expert in sports medicine, expert witness called by the IAAF, by skype;
 - Prof. Giuseppe D'Onofrio, expert haematologist, expert witness called by the IAAF, in person;
 - Prof. Pavel Vorobiev, expert in clinical haematology, expert witness called by the Athlete, by skype;
 - Dr. Grigory Krotov, expert witness called by the Athlete, by skype;
 - The Athlete, by skype.
51. Initially, the Athlete requested the following witnesses to be heard: Ms Elena Ponomaryova and Mr Viktor Ponomaryov, her parents, Mr Nikolay Khokhryakov, her first coach from

2007-2011, Ms Ekaterina Yezhova, her second coach from 2011-2014, Ms Svetlana Yeryomina, a friend of her, Mr Ilya Tronin, her former boyfriend, Dr. Yury Makolov, a sports doctor affiliated with the national racewalker' team, and Dr. Irina Brovkina, a gastroenterologist from the Vita-Med Hospital in Saransk, Mordovia. During the telephone conference on 10 January 2019, the Second Respondent stated that these witnesses were called to testify on her health problems since her childhood as well as her absences from trainings due to these health problems. Upon the IAAF's acknowledgement that it did not dispute that the medical reports and the laboratories analysis' results filed by the Athlete were not falsified, the Athlete no longer deemed it necessary to hear the abovementioned witnesses and accepted not to hear them at the hearing. The Parties agreed that Dr. Yury Makolov and Dr. Irina Brovkina would remain available in case it became necessary to hear them after the testimony of the expert witnesses called by the IAAF and the Athlete.

52. Before the hearing was concluded, the Claimant and the Second Respondent confirmed that they had a fair hearing and that their right to be heard had been respected.

V. SUBMISSIONS OF THE PARTIES

A. The Claimant

53. The IAAF's submissions, in essence, may be summarised as follows:
- Anti-doping rule violations may be proved by any reliable means. The expert witnesses reports and statements of Prof. Giuseppe D'Onofrio and of Prof. York Olaf Schumacher constitute reliable evidence that the Athlete used prohibited substances or prohibited methods.
 - The Athlete's experts witnesses Prof. Pavel Vorovieb and Dr. Grigory Krotov are not credible and their statements inaccurate.
 - The Athlete's explanations of the abnormalities in her ABP are not plausible and in any case inaccurate.
 - The IAAF's case is that the Athlete's ABP profile constitutes clear evidence that the Athlete has committed an anti-doping rule violation in breach of Rule 32.2(b) of the 2015 IAAF Rules on the following grounds:
 - The Athlete's ABP shows multiple abnormalities at both at 99.0% and 99.9% specificity.
 - The Expert Panel dismissed each of the physiological and non-physiological explanations put forward by the Athlete to explain the abnormalities in her ABP.
 - The Athlete's ABP profile constitutes clear evidence that the Athlete has committed anti-doping rule violations in breach of Rule 32.2(b) of the 2015 IAAF Rules as follows:
 - Sample 4 is a clear example of the so-called OFF_phase. The sample combines a high HGB value (15.0 g/dL) and low RET% (0.66), resulting in a high OFF-score value (101.30). As explained by the Expert Panel, these

values are symptomatic of the use and discontinuation of an erythropoietic stimulant (ESA). Sample 4 was taken two days before a major competition (10th European Championships U23) where the Athlete placed first in her event.

- The overall variation in RET% of more than 50% from 1.34 to 0.66 (between samples 3 and 4) is further evidence of a blood manipulation, a fortiori when one considers that these two extreme values arose within only five days, and just before the major competition for the Athlete.
 - The ABP sequence is abnormal with multiple abnormalities at both at 99.0% and the 99.9% specificity for different parameters, while the probability of sequence abnormality is in excess of 99.9% for both the OFF-score and RET% profiles.
 - In total, the Athlete's ABP displays at minimum four outliers, viz. one for sample 11 (upper limit of reticulocytes values, above 2%), two for samples 13 and 19 (lower limit of haemoglobin concentration, below 12.0 g/dL) and one for sample 4 (upper limit of OFF-score).
- Pursuant to Rule 40.2(b) of the 2015 IAAF Rules, the Athlete should be sanctioned with a four year period of ineligibility. In accordance with Rule 40.11 of the 2015 IAAF Rules, the period of ineligibility should commence on the date of the (final) CAS Award.
 - Finally, the IAAF submits that, if the Panel is comfortably satisfied that the Athlete's ABP profile shows that the Athlete used prohibited substances or prohibited methods, then all her results from the date of that first violation (i.e. 8 July 2015) until the date of her provisional suspension on 8 March 2018 must be disqualified pursuant to Rule 40.9 of the 2015 IAAF Rules.

B. The Respondents

54. Although duly invited, the RUSAF did not participate in the present proceedings.
55. The Athlete raised the defence of lack of jurisdiction. On the merits, her submissions may be summarised as follows:
 - The Athlete denies having used any Prohibited Substances and/or Prohibited Methods.
 - The statistical result for athlete which appears to be outside the "normality" threshold does not per se justify a conclusion that an anti-doping violation has occurred but rather calls for explanation by the athlete. In order to evaluate such explanation a whole range of factors related to the athlete as well as to the sport in question will require due and careful consideration. Taking into account the seriousness of the allegations made against the athlete, and the relevant consequences, such consideration shall be performed with extreme caution, and all up-to-date scientific data available shall be kept in mind.

- The Adaptive Model in itself does not – and cannot – produce the probability that an anti-doping rule violation was committed.
- The anti-doping organization (*viz.* the IAAF) bears the burden of proof when trying to impose a sanction on an athlete. The IAAF must meet a “comfortable satisfaction of the relevant hearing panel, bearing in mind the seriousness of the allegation which is made” standard of proof, which is significantly higher than “balance of probability” standard. Taking into account these standards of proof, the IAAF has failed to meet the required standard of “comfortable satisfaction” in order to prove that an anti-doping rule violation has occurred (or was committed by the Athlete).
- The Athlete’s evidence (including the expert reports, medical records from her childhood until present together with the laboratories’ analyses’ results) confirm that there are convincing non-doping explanations for the abnormalities recorded for her ABP, taking into account that some of her blood samples should’ve been excluded from the Adaptive Model statistics.
- The Athlete has provided the IAAF with her general explanations and, back then in April 2018 offered to provide more detailed information regarding her medical diagnoses and description of the conditions which influenced the Athlete’s system (and blood parameters) throughout many years.
- Both Athlete’s experts independently of each other have concluded that, based on the information they were provided with, a set of different factors not related to doping could highly likely lead to abnormalities in some samples of the Athlete’s ABP profile, whereas it was unlikely that the Athlete used any prohibited substances or methods in order to get an unfair sport advantage. The recorded changes in the Athlete’s ABP profile were rather likely caused by other (non-doping) reasons such as chronic and temporary diseases diagnosed for the Athlete, pathological conditions in particular periods of time, and surrounding conditions such as altitude and usage of a hypoxic tent. What is extremely important, the Athlete’s experts provided a comprehensive and convincing explanation of their respective positions while evaluating the Athlete profile’s interrelated values in their entirety. The Athlete thus has submitted reliable and sufficient factual and scientific evidence confirming the opposite, and in doing so went far beyond the necessary standard of “balance of probability”.

VI. JURISDICTION

56. Article R47 of the CAS Code determines as follows:

“An appeal against the decision of a federation, association or sports-related body may be filed with CAS if the statutes or regulations of the said body so provide or if the parties have concluded a specific arbitration agreement and if the Appellant has exhausted the legal remedies available to it prior to the appeal, in accordance with the statutes or regulations of that body”.

57. Article 1.5 of the 2018 IAAF ADR provides the following:

“The IAAF shall also establish a Disciplinary Tribunal to hear Anti-Doping Rule Violations under these Anti-Doping Rules occurring after the Effective Date”.

58. The term “Effective Date” is defined in Article 1.13 of the 2018 IAAF ADR as follows:

“The effective date of these Anti-Doping Rules is 6 March 2018”.

59. The Claimant’s Request for Arbitration dates from 2 July 2018, i.e. after the Effective Date of the 2018 IAAF ADR. Consequently, the 2018 IAAF ADR apply to this case.

60. Article 21.3 of the 2018 IAAF ADR reads as follows:

*“Any case pending prior to the Effective Date, or brought after the Effective Date but based on an Anti-Doping Rule Violation that occurred before the Effective Date, 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, (i) Article 10.7.5 of these Rules shall apply retroactively, (ii) Article 18 of these Rules shall also apply retroactively, unless the statute of limitations applicable under the predecessor version of the Rules had already expired by the Effective Date; and (iii) the relevant tribunal may decide it appropriate to apply the principle of *lex mitior* in the circumstances of the case”.*

A. Principle “*tempus regit actum*” non-applicable

61. The Athlete objects to the jurisdiction of CAS, arguing in essence that the relevant part of Article 21.3 of the 2018 IAAF ADR is unenforceable pursuant to the principle “*tempus regit actum*”. The Athlete submits that the procedural rules in force at the time of the procedural act in question, i.e. the 2018 IAAF ADR without this transitional provision, should apply. Consequently, her case should be heard by the IAAF’s Disciplinary Tribunal acting as the first instance body, subject to the right of any party and WADA to appeal this decision to the CAS.

62. The IAAF maintains that the jurisdiction of CAS derives from Rule 38.3 of the 2016 IAAF Rules, which are applicable based on the transitional provision of the IAAF regulations currently governing anti-doping matters.

63. The principle of “*tempus regit actum*” provides – as a general rule – that the substantive aspects of a contract keep being governed by the law in force at the time when the contract was signed, while any claim should be brought and any dispute should be settled in accordance with the procedural rules in force at the time of the claim (e.g. CAS 2017/O/4980 para. 48; CAS 2016/O/4683 para. 50; CAS 2016/A/4501 para. 92; CAS 2016/O/4488 para. 58; CAS 2011/A/2653 para. 66).

64. However, the principle of “*tempus regit actum*” does not apply if transitional provisions provide otherwise. The Sole Arbitrator notes that this question has been addressed in CAS case law as well, in particular in CAS 2006/A/1008, para 10, which reads as follows:

“In accordance with the CAS jurisprudence (CAS 2004/A/635), the Panel underscores that, as a general rule, transitional or inter-temporal issues are governed by the principle “tempus regit actum”, holding that any deed should be regulated in accordance with the law in force at the time it occurred. As a consequence, procedural actions, such as the filing of an appeal, should be done in compliance with rules and time limits in force when they are performed, unless a transitory rule provide otherwise”.

65. Contrary to the Athlete’s submission, the Sole Arbitrator holds that the 2016 IAAF Rules apply based on the express transitional Article 21.3 of the 2018 IAAF ADR, i.e. of the procedural rules in force at the time when the Claimant initiated the proceedings against the Second Respondent.
66. Moreover, the Sole Arbitrator takes the view that the predominant principle with regard to transitional provisions in procedural rules is the one of legal certainty. The parties of legal proceedings must have confidence that procedural rules do not change *during the course* of the proceedings. A party who intends to initiate new proceedings must, therefore, be aware of the procedural rules that apply to these proceedings. This is why the principle “*tempus regit actum*” is considered to be more appropriate for defining the law to the merits and not for defining the law to the proceedings (MAVROMATI/REEB, *The Code of the Court of Arbitration for Sport: Commentary, Cases and Materials*, 2015, Article R67 para. 2).
67. Last but not least, the Sole Arbitrator points to the fact that the transitional provisions contained in Article 21 of the 2018 IAAF ADR are part of the arbitration agreement between the Claimant and the two Respondents. The 2018 IAAF ADR do not only define in what circumstances disputes arising out of or in connection with the 2018 IAAF ADR shall be referred to the CAS, but – via the transitional provisions – define which procedural rules apply to a specific case. The Swiss Federal Supreme Court has repeatedly found that there is, in a sports context, a sufficient “consent” to arbitrate, even though such provisions are not negotiated between the parties, i.e. as in the case at hand between the sports federation and the individual athlete, at eye level, provided that the arbitral institution is independent from the parties (BGE 133 III 235, para. 4.3.2.2), what it confirmed several times with regard to the CAS (BGer 4A_428/2011, para. 3.2.3; BGer 4A_246/2011, para. 2.2.2; BGer 4A_548/2009, para. 4.1).
68. The Sole Arbitrator concludes that, based on the transitional provisions in the 2018 IAAF ADR, the procedural aspects of these proceedings are governed by the 2016 IAAF Rules.

B. CAS jurisdiction affirmed based on the 2016 IAAF Rules

69. Rule 38.3 of the 2016 IAAF Rules determines as follows:

“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 of 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”.

70. The Sole Arbitrator notes that the Athlete is an International-Level Athlete and that the RUSAF is prevented from conducting a hearing in the Athlete’s case within the deadline set by Rule 38.3 of the 2016 IAAF Rules. The Sole Arbitrator confirms that the IAAF was therefore permitted to refer the matter directly to a single arbitrator appointed by CAS, subject to an appeal to CAS in accordance with Rule 42 of the 2016 IAAF Rules. The jurisdiction of CAS must therefore be affirmed pursuant to Rule 38.3 of the 2016 IAAF Rules, and the CAS Rules applicable to the Appeal Arbitration Procedure shall apply.
71. Additionally, the Sole Arbitrator finds that the Athlete does not incur any hardship from the fact that these proceedings before CAS are not free of charge as opposed to the proceedings before RUSAF, because the costs of these proceedings will in any event not be for her to bear, but for the IAAF and/or for RUSAF. In view of the clear wording of Rule 38.3 of the 2016 IAAF Rules, the Athlete’s objection against the jurisdiction of CAS is to be dismissed.
72. It follows that CAS has jurisdiction to adjudicate and decide on the present matter. Consequently, the issue whether the Athlete accepted the jurisdiction of CAS previous to the initiation of these proceedings by the IAAF may remain undecided.

VII. APPLICABLE LAW

73. The IAAF maintains that the substantive aspects of the asserted anti-doping rule violations shall be governed by the 2015 IAAF Rules. To the extent that the IAAF Rules do not deal with a relevant issue, Monegasque law shall apply (on a subsidiary basis) to such issue.
74. The RUSAF did not put forward any specific position in respect of the applicable law.
75. The Athlete agrees with the IAAF’s position whereas the 2015 IAAF Rules apply to the substantive aspects of the present case.
76. Article R58 of the Code provides as follows:

“The Panel shall decide the dispute according to the applicable regulations and, subsidiarily, to the rules of law chosen by the parties or, in the absence of such a choice, according to the law of the country in which the federation, association or sports-related body which has issued the challenged decision is domiciled or according to the rules of law that the Panel deems appropriate. In the latter case, the Panel shall give reasons for its decision”.

77. The Sole Arbitrator finds that the IAAF indeed replaces the RUSAF in prosecuting the Athlete for an alleged anti-doping rule violation and that the regulations to be applied are in principle the regulations that would have to be applied by the RUSAF.
78. It is undisputed that in possible appeal proceedings before CAS the IAAF Rules would be applicable pursuant to Rule 42.23 of the 2015 IAAF Rules, which reads as follows:
- “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”.*
79. Furthermore, in the IAAF charge letter dated 8 March 2017, reference was already made to an anti-doping rule violation under the 2015 IAAF Rules. The Athlete, at that time, did not object to the application of the 2015 IAAF Rules.
80. The Sole Arbitrator will therefore primarily apply the 2015 IAAF Rules and, subsidiarily, Monegasque law, as the IAAF is seated in Monaco.
81. It follows that the Sole Arbitrator is satisfied that the substantive issues of this case are governed by the 2015 IAAF Rules.

VIII. MERITS

A. The Rules

82. The Athlete has been charged with violating Rule 32.2(b) of the 2015 IAAF Rules which reads as follows:
- “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”.*
83. Rule 33.1, 33.2 and 33.3 of the 2015 IAAF Rules determines the following:
- “Burden and Standards of Proof*
1. *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.

2. *Where these Anti-Doping Rules place the burden of proof upon the Athlete or other Person alleged to have committed an anti-doping violation to rebut a presumption or establish specified facts or circumstances, the standard of proof shall be by a balance of probability.*

Methods of Establishing Facts and Presumptions

3. *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 such as the Athlete Biological Passport and other analytical information”.*

B. The Main Issues

84. The main issues to be resolved by the Sole Arbitrator are:

- i) Did the Athlete violate Rule 32.2(b) of the 2015 IAAF Rules?
 - a) The Athlete’s ABP is an appropriate means of evidence which needs to be interpreted
 - b) Interpretation of the Athlete’s ABP by IAAF’s experts
 - ba) Do the IAAF’s experts lack independence and impartiality?
 - bb) The abnormalities in the Athlete’s ABP and the explanations of the IAAF’s experts
 - c) The explanations and evidence submitted by the Athlete
 - ca) The effects on the Athlete’s ABP when excluding Samples 1 and 2
 - cb) The Athlete’s (alleged) sojourn at 1700 m and use of a hypoxic tent as explanation for the abnormalities in Sample 4 as well as between Samples 3 and 4
 - cc) The Athlete’s medical records and excessive menstruation as explanation for the abnormalities in Samples 11, 13 and 19
 - d) Overall conclusion in respect of the Athlete’s alleged violation of Rule 32.2(b) of the 2015 IAAF Rules
- ii) If Rule 32.2(b) of the 2015 IAAF Rules has been violated, what sanction shall be imposed on the Athlete?

i) Did the Athlete violate Rule 32.2(b) of the 2015 IAAF Rules?

- a) *The Athlete’s ABP is an appropriate means of evidence which needs to be interpreted*

85. The IAAF principally relies on several abnormalities in the Athlete’s ABP profile that constitute evidence that she has committed anti-doping rule violations in breach of Rule 32.2(b) of the 2015 IAAF Rules. The IAAF summarized its positions as follows:

- “(i) Sample 4 is a clear example of the so-called OFF-phase, combining a high HGB value (15.0 g/dL) and low RET% (0.66), resulting in a high OFF-score value (101.30). As explained by the Expert Panel, these values are symptomatic of the use and discontinuation of an erythropoietic stimulant (ESA). Sample 4 was taken two days before a major competition (10th European Championships U23) where the Athlete placed first in her even.*
- “(ii) The overall variation in RET% of more than 50% from 1.34 to 0.66 (between samples 3 and 4) is further evidence of a blood manipulation, a fortiori when one considers that these two extreme values arose within only five days, and just before the major competition for the Athlete.*
- “(iii) The ABP sequence is abnormal with multiple abnormalities at both at 99.0% and the 99.9% specificity for different parameters, while the probability of sequence abnormality is in excess of 99.9% for both the OFF-score and RET% profiles.*
- “(iv) In total, the Athlete’s ABP displays at minimum four outliers, viz: one for sample 11 (upper limit of reticulocytes values, above 2%), two for samples 13 and 19 (lower limit of haemoglobin concentration, below 12.0 g/dL) and one for sample 4 (upper limit of OFF-score)”.*

86. In a preliminary finding, the Sole Arbitrator accepts that the ABP is a reliable and accepted means of evidence to assist in establishing anti-doping rule violations and feels comforted in this conclusion by CAS jurisprudence (see CAS 2010/A/2174, para. 9.8.

87. The Sole Arbitrator is however mindful of the warnings expressed by the Second Respondent that, if the observed blood values of an athlete’s ABP deviate from normal values and if they cannot be explained pathologically, there is not automatically a high probability of doping.

88. A CAS panel brought it nicely to the point by stating that *“abnormal values are (for the purposes of the ABP) a necessary but not a sufficient proof of a doping violation”* (CAS 2010/A/2235, para. 86). In the referenced case, the panel noted a coincidence of the levels with the athlete’s racing schedule and stated the following:

“As Dr Sottas convincingly explained, in the same way as the weight of DNA evidence said to inculcate a criminal is enhanced if the person whose sample is matched was in the vicinity of the crime, so the inference to be drawn from abnormal blood values is enhanced where the ascertainment of such values occurs at a time when the Athlete in question could benefit from blood manipulation” (CAS 2010/A/2235, para. 102).

89. The Sole Arbitrator takes the view that from the mere fact that an athlete cannot provide a credible explanation for the deviations in his or her ABP it cannot automatically be concluded that an anti-doping rule violation has been committed. The deviations in the ABP are to be interpreted by experts called to put into the balance various hypothesis and circumstances that could explain the abnormality in the profile values. In other words, a distinction should be made between a mere “quantitative” evaluation and a “qualitative” assessment of the evidence.

90. The Sole Arbitrator also agrees to the Athlete Counsel’s statement made during the hearing that a low credibility of an athlete does not strengthen the doping scenario submitted by the

sports federation. The legal burden to prove a doping scenario remains with the sports federation or anti-doping organisation.

91. Applying the above to the matter at hand, even in the absence of a credible non-doping related explanation for the abnormal values and sequence in her ABP, the abnormal values may not necessarily be explained by doping. In order to affirm a doping violation pursuant to Rule 32.2(b) of the 2015 IAAF Rules, the Sole Arbitrator needs to be convinced to his comfortable satisfaction that the abnormal values are caused by a “doping scenario”, which does not necessarily derive from the quantitative information provided by the ABP, but requires a qualitative interpretation of the experts and possible further evidence.

b) Interpretation of the Athlete’s ABP by the IAAF’s experts

92. In its attempt to establish an anti-doping rule violation of the Athlete pursuant to Rule 32.2(b) of the 2015 IAAF Rules, the IAAF relies on conclusions drawn from longitudinal profiling as shown by the Athlete’s ABP. The IAAF focuses on the following evidence:

(i) In their First and Second Joint Expert Opinions, the experts Prof. d’Onofrio, Prof. Audran and Prof. Schumacher identified various abnormalities within the Athlete’s ABP, i.e. (a) four individual outliers at a specificity of 99% (low and high OFF-scores, low and high HGB) (b) abnormal sequences in HGB, RET% and OFF-score values in the Athlete’s ABP with a probability in excess of 99.9%, and (c) indications of blood withdrawal. The experts came to the unanimous conclusion that it is highly unlikely that these abnormalities are the result of a normal physiological or pathological condition, and that it is highly likely that they were caused by the use of prohibited substances or prohibited methods.

(ii) The rejection of each of the physiological and non-physiological explanations put forward by the Athlete.

(iii) The testimonies of Prof. d’Onofrio and Prof. Schumacher during the hearing.

93. The Sole Arbitrator notes that the Athlete does not deny that blood manipulation, namely the artificial increase of red cell mass using erythropoiesis stimulating substances or blood transfusions, is a plausible explanation for the abnormalities in an ABP profile. The Athlete, however, submits that, although blood manipulation may be the most likely explanation, other normal physiological explanations are possible and must be considered.

94. In a first step, the Sole Arbitrator deals with the interpretation of the IAAF’s evidence and, in a second step, he will deal with the arguments put forward by the Athlete.

ba) Do the IAAF’s experts lack independence and impartiality?

95. The Athlete challenged the independence and impartiality of the IAAF’s experts at the hearing. In particular, she submitted that the Claimant’s experts, and in particular Prof. d’Onofrio, have

never provided an expertise in favour of an athlete but rather wrote whatever the IAAF wanted them to write.

96. The Sole Arbitrator is not prepared to follow the Athlete's challenge on the IAAF experts' independence and impartiality for various reasons:
 97. First, Prof. d'Onofrio explained at the hearing in detail the procedure followed when providing the expert opinions. Important to note that, according to standard practice, the IAAF is not involved in the activities of the experts which lead to the First and Second Joint Expert Opinion. In following this practice, the communication in the present case with the experts was conducted through the AIU, without the involvement of the IAAF.
 98. Second, Prof. d'Onofrio and Prof. Schumacher testified at the hearing that only a very small percentage of the ABP profiles submitted to them are actually forwarded to the IAAF. The experts explained the various reasons that may lead the experts to refuse to forward an ABP profile to the IAAF. For example, the three experts do not reach an unanimous conclusion (either with regard to their first or second joint written expert opinion), or the athlete provided explanations based on which the experts conclude that there are or may be alternative reasons for the abnormalities in the athlete's ABP profile other than doping, or abnormalities flagged by the adaptive model of the ABP simply remain unexplained.
 99. Third, the experts testified that they are mindful of any new explanations brought forward by an athlete during the disciplinary proceedings. Prof. d'Onofrio in his testimony has not excluded that he might come to a different conclusion in case new compelling evidence were to be submitted by the athlete.
 100. In the case at hand, the Athlete did not submit any new explanations for the abnormalities in her ABP profile, but confirmed her explanations made to the AIU. Hence, there were no arguments submitted by the Athlete which were ignored by the experts.
 101. Fourth, the experts receive a flat fee for providing their expertise to the IAAF, independently of whether an ABP profile is forwarded to the IAAF or not. This practice related to the First and Second Expert Opinion has been followed in the case at hand.
 102. Based on the foregoing, the Sole Arbitrator has no reason to question the IAAF experts' independence and/or impartiality with regard to their joint expert opinions and their testimonies on the Athlete's ABP profile provided at the hearing.
- bb) The abnormalities in the Athlete's ABP and the explanations of the IAAF's experts
103. Sample 4 shows the highest level of haemoglobin and the lowest RET% which results in the highest OFF-score value of the Athlete's ABP profile. This high level of haemoglobin is above the ABP's "normality" threshold at a specificity of 99%. The Sole Arbitrator notes the quick decrease of the RET% between Samples 3 and 4 which occurred within five days while the level of haemoglobin remained stable.

104. The Sole Arbitrator accepts the Expert Panel's finding in the First Joint Expert Opinion that *"such pattern, known as an 'OFF-phase', is typically observed when red blood cell mass is supra-physiologically elevated (high HB concentration) and leads to downregulation of the erythropoiesis (relatively low reticulocytes, low IFR) as a consequence of use and subsequent discontinuation of an erythropoietic stimulant or the recent application of a blood transfusion"*.
105. Sample 4 was taken on 8 July 2018, two days before the 10th European Championships U23 which she won. Sample 3 was taken on 3 July 2018, i.e. five days prior to Sample 4. During the hearing, Prof. d'Onofrio convincingly explained the effects of an athlete's use of EPO or other stimulating substances prior to a major competition, underlining the development of the RET% between Samples 3 and 4. The Sole Arbitrator is convinced that a high haemoglobin level combined with a low RET% is an abnormal pattern and may be explained by a doping scenario, taking into account that upon stopping the use of EPO or other stimulating substances the haemoglobin level stays high due to the long lifetime of red cells. At the same time, the athlete's body, without the influence of EPO or other stimulating substances, senses that the haemoglobin level is too high and consequently suppresses the production of red cells. This suppression is reflected in the low RET%. The Sole Arbitrator follows Prof. d'Onofrio's statement that the immediate and considerable drop of the RET% between Samples 3 and 4 within only five days indicates the suppression development after the use of EPO or other stimulating substances.
106. In the absence of plausible explanations for these abnormalities other than the IAAF's doping scenario, the Sole Arbitrator is convinced that the Athlete used prohibited substances or prohibited methods before the taking of Sample 4.
107. The Sole Arbitrator also notes that Samples 1, 2 and 11 show high percentages of reticulocytes. Given that the IAAF does not rely on Samples 1 and 2 to establish an anti-doping rule violation of the Athlete, the Sole Arbitrator therefore does not deem it necessary to look into these two samples in further detail but rather limits his assessment to Sample 11. The Sole Arbitrator further notes that the Athlete's HGB in Sample 11 shows normal values.
108. A high RET% value indicates an increased production of red cells. Under normal circumstances, this is necessary to compensate an athlete's decreased HGB. Given that the Athlete's HGB in Sample 11 is not decreased, the Sole Arbitrator agrees with the Expert Panel's explanations provided in the First Joint Expert Opinion: *"In the absence of decreased HGB, blood loss (not declared) or another pathological condition, these samples are also suspicious for an unduly stimulated red cell production in the bone marrow. The use of erythropoiesis stimulating substances (ESA) is a possible explanation"*. Prof. d'Onofrio supported these explanations during the hearing, stating that such a high RET% value is explained with an anaemia situation, i.e. an (athlete's) body is not able to transport enough oxygen. Prof. d'Onofrio further explained that a high RET% value combined with a normal HGB is not physiological, cannot be related to any diagnosis and is clearly likely an effect of external stimulation.
109. The Sole Arbitrator agrees that the high RET% value combined with a normal HGB in Sample 11 is not physiological. However, he is not convinced that these abnormal values are caused by a doping scenario. As outlined by Prof. Schumacher during the hearing, the life cycle of

red cells is usually 120 days. A high RET% value of 2.73 in Sample 11 on 21 September 2016 would therefore expect to find increased HGB values in subsequent samples within the next 120 days. This is, however, not the case in the Athlete's ABP. The Sole Arbitrator notes, as Dr. Krotov submitted in his expert opinion as well as during the hearing, that the HGB values rather remained stable or decreased during the months after the taking of Sample 11. Neither the Expert Panel in their Joint Expert Opinions nor the IAAF's experts during the hearing provided (convincing) explanations as to why no increased HGB values were registered before and after the taking of Sample 11.

110. Consequently, the Sole Arbitrator accepts that the blood values in Sample 11 are abnormal and raise suspicion. However, he is – based on the evidence submitted by the Claimant – not convinced that the Athlete used prohibited substances or prohibited methods before the taking of Sample 11.
111. The Sole Arbitrator finally notes that Samples 13 and 19 show the lowest HGB in the Athlete's ABP profile.
112. As maintained by the Expert Panel in the First Joint Expert Opinion, the Sole Arbitrator is willing to accept that the low HGB combined with an increase of RET% in Sample 13 provides "*evidence of accelerated erythropoietic regeneration*" which combination "*is typical of blood loss or withdrawal*". He also accepts the Expert Panel's statement in the First Joint Expert Opinion whereas the even lower RET% in Sample 19 "*in the absence of an evident reticulocyte reaction, and associated with leucocytosis and neutrophilia*" raises the suspect of blood withdrawal carried out by the Athlete at the end of the two competitive seasons.
113. The Sole Arbitrator finds that the low HGB combined with the high RET% value in Sample 13 supports the Expert Panel's opinion. The significant increase of the RET% value shows that the Athlete's body increased the production of red cell since her body could not transport enough oxygen due to the low HGB.
114. With regard to Sample 19, the Sole Arbitrator notes that the Athlete's ABP again shows a low HGB combined, however, with a low RET% as well. The Sole Arbitrator is not convinced that this constellation in itself proves a blood withdrawal and a doping scenario. However, the Sole Arbitrator is convinced by Prof. d'Onofrio's explanations provided during the hearing, that such development of the HGB and RET% within around 20 days between Samples 18 and 19 cannot be explained with any normal blood loss situation but renders a blood withdrawal and therefore a doping scenario very likely.
115. The Sole Arbitrator further finds that the undisputed fact that Samples 13 and 19 were taken after the end of the competitive seasons 2016 and 2017, which also results from the Athlete's own life schedule, further supports the doping scenario established by the IAAF. In fact, blood withdrawal, in particular in an amount necessary to cause such deviations in the blood parameters, during the competitive season is very unlikely since it would necessarily weaken an athlete's performance.

116. Based on the above and subject to plausible explanations by the Athlete for the abnormal low HGB in Samples 13 and 19, the Sole Arbitrator is convinced that the Athlete used blood doping practices after the end of the competitive seasons 2016 and 2017.
117. Based on the evidence taken from the Athlete's ABP profile, the First and Second Joint Expert Opinions as well as the testimonies of Prof. d'Onofrio and Prof. Schumacher, the Sole Arbitrator concludes that the Athlete's ABP profile shows various abnormalities with regard to Samples 4, 11, 13 and 19 and the sequence between Samples 3 and 4. The Sole Arbitrator is satisfied that the high level of haemoglobin in Sample 4, the quick decrease of the percentage of reticulocytes between Samples 3 and 4, as well as the low level of haemoglobin in Samples 13 and 19 of the Athlete's ABP profile may result from the use of blood doping. With regard to the high percentage of reticulocytes in Sample 11, the Sole Arbitrator is prepared to accept that a doping scenario is a plausible explanation. He is, however, not convinced that sample 11 provides proof of a doping scenario.
118. In the absence of convincing explanations by the Athlete, the Sole Arbitrator is satisfied that the IAAF has established a "doping scenario" by using blood doping during the time period from 8 July 2015 (Sample 4) to 18 October 2017 (Sample 19).

c) The explanations and evidence submitted by the Athlete

119. In her Answer on the merits, the Athlete relied on the expert reports of Prof. Vorobiev and Dr. Krotov, and submits that there can be multiple explanations for the unusual characteristics of some of her blood samples in the ABP. The Athlete reiterated some of her arguments submitted in her initial explanations for the abnormalities in her ABP profile filed to the AIU together with related medical documentation.
- ca) The effect on the Athlete's ABP when excluding Samples 1 and 2
120. The Athlete submits that Samples 1 and 2 cannot be taken into consideration since the external quality control of these samples was poorly performed. Consequently and taking into account the exclusion of Samples 1 and 2, the Athlete submits that the reference values of her individual parameter limits change and remain within normal thresholds. Prof. Vorobiev expressly concludes in his written expert opinion that "*none of the haemoglobin and reticulocyte values go beyond the limits of the reference values*".
 121. The Sole Arbitrator notes that Samples 1 and 2 were analysed by the Antidoping Centre in Moscow, Russia. Dr. Krotov, one of the Athlete's experts, confirmed during the hearing that he was in charge as head of this laboratory until 2016, i.e. at the time when the Athlete's ABP Samples 1 and 2 were analysed. Asked by the IAAF's counsel whether he signed off the analysis of Samples 1 and 2, Dr. Krotov avoided a direct answer and testified that the document with the results of the analysis of Samples 1 and 2 do not contain his signature. The Sole Arbitrator concludes that Dr. Krotov has not provided a reasonable explanation why he did not raise any concern regarding the analysis of Samples 1 and 2.

122. The Claimant submitted a recalculated ABP profile during the hearing, excluding the Samples 1 and 2 for the purpose of calculating the reference values of the individual parameter limits for the Athlete. Pursuant to this recalculated ABP, the same abnormalities were shown as in the original ABP. This was confirmed by Prof. d'Onofrio, who testified that only excluding Samples 1 and 2 from the ABP might slightly modify the Athlete's individual thresholds in the ABP. However, the ABP would still be flagged, since it would nonetheless show the same abnormalities as if samples 1 and 2 were included in the analysis.
123. Dr. Krotov submitted in his expert opinion that Samples 1 and 2 "*should be excluded from the athlete's haematological profile, as they affect an individual range of reference values in one way or another for all subsequent samples of this particular haematological profile*", without, however, drawing any conclusions. Consequently, Dr. Krotov's statement regarding Samples 1 and 2 cannot be relied on.
124. Prof. Vorobiev stated in his expert opinion that "*if we recalculate the individual limits established by the ABP Model (taking into account the exclusion of samples No. 1 and 2), none of the haemoglobin and reticulocyte values go beyond the limits of the reference values*". At the hearing, Prof. Vorobiev confirmed that the Athlete's HGB level and RET% values would remain within her individual thresholds if Samples 1 and 2 from the ABP profile were excluded. Confronted with the recalculated Athlete's ABP profile submitted by Claimant, Prof. Vorobiev, however, expressly acknowledged deviations from the Athlete's individual parameters, albeit no major ones. Moreover, Prof. Vorobiev expressly admitted that his statement was a „guess“. He explained his guess at the time with the non-availability of the recalculated ABP profile.
125. Based on the above, the Sole Arbitrator does not rely on Prof. Vorobiev's statement in his expert report that no HGB and RET% values would exceed the Athlete's individual thresholds.
126. Consequently, the Sole Arbitrator concludes that the Athlete's ABP profile show abnormalities irrespective of whether Samples 1 and 2 are included into the calculation of the Athlete's individual thresholds or not.
- cb) The Athlete's (alleged) sojourn at 1700 m and use of a hypoxic tent as explanation for the abnormalities in Sample 4 as well as between Samples 3 and 4
127. The Athlete submits that the abnormalities identified by the Claimant in Sample 4 as well as between the taking of Samples 3 and 4 were the result of a sojourn at 1700 m and the use of a hypoxic tent. Prof. Vorobiev opined that, in contrast to the Expert Panel's opinion, the high altitude training and the stay in the hypoxic tent may very well explain the Athlete's values in the ABP. Dr. Krotov confirmed this view by stating that the ABP values of Sample 4 were perfectly explicable by the Athlete's stay in high altitude and the use of a hypoxic tent.
128. The Sole Arbitrator agrees with the Claimant's submission that the Athlete's allegations regarding her sojourn at high altitude and the use of a hypoxic tent contain various contradictions. First, the Athlete indicated in the Doping Control Form ("DCF") for Sample 3 that she stayed in Kislovodsk at an altitude of 1700 m from 5 May 2015 until 3 July 2015. In

the DCF for Sample 4, taken only five days later, she indicated that she used a hypoxic tent, allegedly simulating an altitude of 2000 m from 11 June until 30 June 2015. These explanations in the DCFs are not consistent. It is difficult to understand why the Athlete did not provide the same explanations in both DCFs. Second, the Athlete indicated in her own life schedule that she was in Saransk Plain in May 2015, in Izhevsk in June 2015 and participated in the All-Russian Championship in Cheboksary on 12 June 2015. In her life schedule, however, the Athlete did not mention a stay in altitude and/or the use of a hypoxic tent at all. Third, the Sole Arbitrator agrees with the Claimant's submission whereas the Athlete's Instagram profile indicates that she was not in Kislovodsk, as indicated on the DCF for Sample 3, for the entirety of the period from 5 May 2015 until 3 July 2015, but at least on occasion in Saransk on 25 May 2015 and in Cheboksary on 15 June 2015.

129. The Athlete's counsel stated during the hearing that, despite the indications on the DCF for Sample 3, the Athlete in fact never stayed in the mountains, and in particular not in Kislovodsk, but rather used a hypoxic tent during the whole period indicated on the DCF, i.e. from 5 May 2015 until 3 July 2015, simulating an altitude of 1700 m from 5 May 2015 until 3 July 2015 and of 2000 m from 11 May 2015 until 30 June 2015.
130. At the hearing, the Athlete confirmed that she did not actually stay in the mountains but rather used the hypoxic tent in an adjoining room during the whole period indicated in the DCFs, i.e. from 5 May 2015 until 3 July 2015. She submitted that she stayed in the tent during the whole day and night, with the exception of the daily training session and for short periods to eat. The Sole Arbitrator agrees with the Claimant that it is implausible and difficult to understand that the Athlete spends almost 14 to 17 hours a day during almost two months in a tent where she can only stay horizontal.
131. On cross-examination by the Claimant's Counsel, the Athlete testified that she did not mention in the DCF for Sample 3 the use of the hypoxic tent but a stay at an altitude of 1700 m in Kislovodsk. In the Sole Arbitrator's view, this statement is not plausible. There is neither an indication of the use of a hypoxic tent nor an indication of any simulation whatsoever in the DCF for Sample 3. The Athlete merely mentioned a stay at an altitude of 1700 m in Kislovodsk without further details.
132. The aforementioned implausibility is further supported by the fact that the Athlete indicated the use of a hypoxic tent in the DCF for Sample 4, but not the many hours – 14 to 17 hours during a day – she (allegedly) stayed in the tent.
133. The Sole Arbitrator agrees with Prof. d'Onofrio's statement during the hearing that it is implausible that the Athlete did not mention this (alleged) long and intensive stay in a hypoxic tent – almost 14 to 17 hours a day during almost two months – when providing the AIU with her explanations for the abnormalities in her ABP profile on 17 January 2018.
134. Based on the above, the Sole Arbitrator has serious doubts as to whether the Athlete used a hypoxic tent during the period indicated by her. Consequently, the Sole Arbitrator notes that the Athlete's experts drafted their reports based on an inaccurate basis.

135. However and even if it were to assume that the Athlete used a hypoxic tent simulating an altitude of 1700 m from 5 May 2015 until 3 July 2015 and of 2000 m from 11 May 2015 until 30 June 2015, the Sole Arbitrator is not convinced that such a stay could explain the abnormalities in the ABP's Sample 4 and between Samples 3 and 4 for the following reasons:
136. The Sole Arbitrator notes that the Expert Panel in its First Joint Expert Opinion expressed its view that staying in altitude with an appropriate strength of the stimulus causes changes in the markers of the ABP, in particular a slight decrease in the RET%. Based on the explanations provided by the Expert Panel, the Sole Arbitrator is convinced that the Athlete's purported stay at 1700 m during almost two months and the use of a hypoxic tent during around one and a half months at 2000 m do not cause a sufficient strength explaining the abnormalities of her ABP. Consequently, the Sole Arbitrator is convinced that it is very unlikely that the Athlete's indicated stay at the relatively low altitude as well as the relatively short stay in a hypoxic tent caused the magnitude of the observed changes in Sample 4 as well as during the period between the taking of the Samples 3 and 4 of the ABP.
137. As stated by Prof. Schumacher during the hearing, the Sole Arbitrator is willing to accept that there is a significant difference whether an athlete actually stays at an altitude of 1700 m or 2000 m during several weeks or whether an athlete simply tries to simulate the effect of a stay in altitude by using a hypoxic tent. The Sole Arbitrator is convinced that such a simulation cannot reach the magnitude of changes of the Athlete's blood values necessary to explain the abnormalities in Sample 4 of the ABP.
138. In addition, the Sole Arbitrator agrees with Prof. Schumacher's statements during the hearing that interrupting the stay in a hypoxic tent for training and eating further diminishes the effect of a simulation of an altitude training on the Athlete's blood values.
139. Prof. Vorobiev criticised the Expert Panel's opinion as unfounded. The Sole Arbitrator is, however, not convinced by this statement. Prof. Vorobiev outlines in his report in general terms the effects of a sojourn at high altitude and the use of an artificial hypoxic tent on the blood parameters HGB and RET%. However, he refrains from becoming more concrete as regarding the Athlete's (alleged) sojourn as well as the altitude and/or the duration necessary to cause, in his opinion, the observed changes in Sample 4 of the ABP. Moreover, Prof. Vorobiev refers to a publication of Ashenden et al., whereas the "*normalization of blood parameters after staying at an altitude of 2100 meters occurred during the first week after return of athletes to the sea level*" without, however, explaining why the statements in this publication apply to the Athlete's (alleged) sojourn at only 1700 m.
140. Dr. Krotov also submits that "*the version of haemoglobin concentration increase in samples 3 and 4 due to hypoxia exposure seems to me much more likely to be the real reason for the variations in blood parameters observed than the use of ESAs or some prohibited method (in particular, a blood transfusion)*". However, the Sole Arbitrator takes the view that Dr. Krotov's explanations are not sufficiently detailed enough to convince him that the abnormalities in Sample 4 and between Samples 3 and 4 of the ABP are a result of the Athlete's (alleged) sojourn at an altitude of 1700 m. First, the Sole Arbitrator notes that Dr. Krotov does not outline what altitude during which period would be sufficient and necessary to cause the observed effects in the ABP. Second, Dr. Krotov does

not explain why, in his opinion, the Athlete's (alleged) sojourn at an altitude of 1700 m during two months could cause the increased MCV parameter of 95.6 fL, in particular taking into consideration the immediate drop of this value to 80.9 fL observed in Sample 4, taken five days after the end of the Athlete's (alleged) sojourn. Third, Dr. Krotov does not substantiate at all why "*no increase in the MCV parameter would have been observed*" assuming that the Athlete used "*recombinant erythropoietin [...] for erythropoiesis' stimulation*".

141. Based on the above, the Sole Arbitrator is convinced that (i) the IAAF established a doping scenario with regard to Sample 4 and during the time period between taking of the Samples 3 and 4 of the ABP and that (ii) there are no other likely explanations for the identified abnormalities in the ABP.
- cc) The Athlete's medical records and excessive menstruation as explanation for the abnormalities in Samples 11, 13 and 19
142. As outlined above, the Sole Arbitrator is, based on the evidence submitted by the Claimant, not convinced that Sample 11 constitutes a sufficient evidence for a doping scenario (see above, para 108-110). The Sole Arbitrator, therefore, does not deem it necessary to look into this Sample in further detail, in particular with regard to the findings of the Athlete's experts.
143. With regard to Samples 13 and 19, the Sole Arbitrator notes that Dr. Krotov confirms the Expert Panel's view that "*some blood loss took place*", but argues that – different to the Expert Panel's findings – a conclusion that the blood "*was a use of a prohibited method (blood collection for transfusion purposes) may not be made based on the balance of probabilities (still less based on comfortable satisfaction of the tribunal) standard*". Dr. Krotov rather explains the pattern in Samples 13 and 19 as a result of blood loss due to a disease or blood donation and interprets the low haemoglobin concentrations as a result of heavy menstruation and/or bleeding.
144. The Sole Arbitrator notes that the Expert Panel as well as the Second Respondent's experts agree that the low HGB values must result from blood loss. The Sole Arbitrator further notes that Dr. Krotov does not provide any details why and based on which considerations and/or references he comes to his conclusion. Consequently, the Sole Arbitrator is of the opinion that in view of the lack of further explanations Dr. Krotov's expert opinion should not be followed, in particular given that the Claimant's experts were able to support their considerations with more detailed explanations and scientific references.
145. The Sole Arbitrator further agrees with Prof. d'Onofrio's statements – confirmed by Prof. Schumacher – during the hearing that the particularly low HGB value below 12.0 g/dl indicate a volume of blood loss which cannot result from menstruation and iron deficiency where the dynamics in the HGB parameters would be much lower. In fact, the Expert Panel stated in its Second Joint Expert Opinion that during normal menstruation, approximately 40 ml of blood is lost and that the variation of haemoglobin concentration during the menstrual cycle ranges within 0.7 g/dl of an individual baseline (for the Athlete, the Expert Panel considers a baseline "*which probably ranges around 13.5 g/dl*" as likely). In the ABP, the HGB value in Samples 13 and 19 amount to only 11.9 g/dl and 11.3 g/dl and therefore much lower than the above-mentioned threshold of 0.7 g/dl. The Expert Panel further outline that even heavy

menstruation, which can cause blood loss up to 80 ml per month, would only cause relatively minor changes to the haemoglobin level, far from being comparable to the large variations visible in the ABP. Moreover, the Sole Arbitrator relies on Prof. d’Onofrio’s statement that for several months before the taking of Samples 13 and 19, the HGB parameters were normal. In fact, the Athlete’s HGB parameters show – apart the HGB values in Samples 13 and 19 – values between 13.2 and 14.0 from June 2016, i.e. around five months before the taking of Sample 13, and October 2017, i.e. the taking of Sample 19. The Sole Arbitrator is convinced that much higher fluctuations would appear if the Athlete were to suffer from regular blood losses due to menstruation and iron deficiency resulting in variations in the HGB values.

146. The Sole Arbitrator further concurs with the Expert Panel’s view expressed in the Second Joint Expert Opinion – confirmed by Prof. Schumacher during the hearing –, that Samples 13 and 19 show no features of iron deficiency since *“both samples in question here show normal MCV and MCH and is thus unlikely to be affected by any relevant iron deficiency caused by chronic blood loss”*. In addition, the Expert Panel correctly refer to the fact that *“no signs of chronic blood loss such as block stools etc. were ever reported by the athlete or otherwise documented in any form”*.

147. Moreover, the Sole Arbitrator notes that the Expert Panel, referring to scientific references, explain convincingly that *“all authors attribute the observed changes mainly to hormone induced plasma volume shifts and not to variations in red cell mass itself. Thus, the variation caused by the monthly bleeding is not very important and certainly smaller than the variations that might be induced by plasma volume shifts caused by different modalities of exercise”*. Consequently, the Sole Arbitrator is convinced to his comfortable satisfaction that the low HGB values in Samples 13 and 19 evidence a significant blood loss that cannot be explained by normal or heavy menstruation or iron deficiency which would mainly result in plasma volume variations.

148. Dr. Krotov further submits that the *“Expert Panel’s suggestion that blood parameters for sample 19 speak for blood collection for subsequent autologous transfusion are not confirmed by the results of the blood samples’ analyses collected after Sample 19 which could show high haemoglobin concentration along with low (<1) reticulocytes’ concentration”*. The Sole Arbitrator takes the view that Dr. Krotov statement is not plausible. In fact, Dr. Krotov first argues that the Expert Panel’s conclusion is not confirmed by the blood samples collected after Sample 19. He then, however, reveals that his statement is based on assumptions on the values such blood samples collected after Sample 19 *could* show. The fact that Dr. Krotov apparently is not able to provide any details as to the HGB and/or RET% values of the samples collected after Sample 19 further confirms that he is not able to provide a scientific, factual-based statement but rather provided assumptions.

149. In his expert opinion, Prof. Vorobiev, referring to the Athlete’s medical records, submits that the haemoglobin level of people who have latent chronic blood losses due to stomach disease may decrease, sometimes quite significantly. He further refers to the Athlete’s explanations, where she *“points to these repeated facts: her haemoglobin level repeatedly decreased below the normal one, she was diagnosed with anemia”*. The Sole Arbitrator is, however, not convinced by these statements. In her explanations, the Athlete submitted that she had excessive menstruation at the time when Sample 13 was taken, i.e. on 30 November 2016. She did, however and in contrast to Prof. Vorobiev’s statements in his expert report, not claim in her explanations to

have suffered from stomach disease in November 2016. The Athlete further submitted in her explanations that “DNA of *Chlamydia trachomati* was revealed” during tests in November 2016, i.e. in the month of the taking of Sample 13, whereupon the Athlete “started antibiotic, antivirals, antifungals and antibacterial treatment in the middle of November”. It remains, however, unclear to what extent this treatment influenced the Athlete’s blood values and in particular caused the low HGB value in Sample 13. In particular, the Athlete’s experts both did not explain in their reports the connection between the Athlete’s treatment in November 2016 and the low HGB value in Sample 13 of the ABP. Moreover, it remains unclear from the Athlete’s explanations and Prof. Vorobiev’s expert opinion when, i.e. at what dates, the Athlete’s haemoglobin level (allegedly) decreased below the normal level. The Sole Arbitrator is, therefore, not in the position to assess whether the Athlete’s explanations are accurate and, in particular, whether the alleged decreases of the Athlete’s haemoglobin level are in line with the HGB values contained in the ABP.

150. The Sole Arbitrator refers again to the Expert Panel’s conclusive statements in the Second Joint Expert Opinion that the Athlete’s (alleged) pathologies almost inevitably develop an iron deficiency. However, the Sole Arbitrator agrees with the Expert Panel’s conclusion that, when cross checking the facts with Samples 13 and 19 of the ABP, there are no features of iron deficiency in neither of the samples (see above, para 146).
 151. The Sole Arbitrator is neither able to confirm nor to negate Dr. Krotov’s submissions regarding the alleged iron deficiency, as no values of the Athlete’s blood samples from the ABP collected after 18 October 2017, i.e. after the taking of Sample 19, have been submitted in the CAS proceedings.
 152. Based on the above, the Sole Arbitrator reaches the conclusion that the explanations provided by the Athlete and her experts with regard to Samples 13 and 19 are unfounded and that it is unlikely that chronic blood loss caused the abnormalities visible in these samples of the ABP. The Sole Arbitrator remains convinced that there are no likely explanations for the identified abnormalities in Samples 13 and 19 of the ABP other than the doping scenario established by the IAAF.
 153. As the Sole Arbitrator holds that the explanations of the Athlete are unfounded, he does not need to address whether the blood tests submitted by the Athlete present several shortcomings and can only be taken into consideration with caution.
- d) *Overall conclusion in respect of the Athlete’s alleged violation of Rule 32.2(b) of the 2015 IAAF Rules*
154. In view of all the above, taking into account the evidence submitted by the IAAF as well as the explanations and submissions provided by the Athlete, the Sole Arbitrator holds that the IAAF has established to his comfortable satisfaction a “doping scenario” regarding the Athlete’s ABP profile.
 155. The Sole Arbitrator holds that Sample 4 (taken on 8 July 2015), the sequence between Samples 3 and 4, Sample 13 (taken after the competitive season on 30 November 2016), and Sample 19 (taken after the competitive season on 18 October 2017) in the Athlete’s ABP profile

constitute evidence of a doping rule violation in breach of Rule 32.2(b) of the 2015 IAAF Rules.

156. Consequently, the Sole Arbitrator finds that the Athlete violated Rule 32.2(b) of the 2015 IAAF Rules by using prohibited substances or prohibited methods from 8 July 2015 through to 18 October 2017, *i.e.* a period of more than two years.

ii) *If Rule 32.2 (b) of the 2015 IAAF Rules has been violated, what sanction shall be imposed on the Athlete?*

157. Rule 40.2 of the 2015 IAAF Rules determines as follows:

“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 Substance or Prohibited Method) or 32.2(f) (Possession of a Prohibited Substance or Prohibited Method) shall be as follows, subject to potential reduction or suspension pursuant to Rules 40.5, 40.6 or 40.7:

(a) The period of Ineligibility shall be four years where:

- (i) The anti-doping rule violation does not involve a Specified Substance, unless the Athlete or other Person can establish that the anti-doping rule violation was not intentional;*
- (ii) The anti-doping rule violation involves a Specified Substance and it can be established that the violation was intentional.*

(b) If Rule 40.2(a) does not apply, the period of Ineligibility shall be two years”.

158. The Sole Arbitrator agrees with the IAAF’s submission that blood doping practices can only be committed intentionally. Moreover, the Sole Arbitrator agrees with the IAAF’s submission that blood manipulation by using prohibited substances or prohibited methods do not constitute Specified Substances within the meaning of the 2015 IAAF Rules. The Sole Arbitrator further notes that the Athlete fails to establish that the conditions of Rule 40.2(a)(i) of the 2015 IAAF Rules to apply a sanction of two years in case of an anti-doping rule violation are met.

159. Consequently, the Sole Arbitrator finds that a period of ineligibility of four years is to be imposed on the Athlete for violating Rule 32.2(a) of the 2015 IAAF Rules.

160. The remaining question to be examined by the Sole Arbitrator is therefore whether there are circumstances that should lead to a reduction or suspension of the standard sanction pursuant to Rules 40.5, 40.6 or 40.7 of the 2015 IAAF Rules.

161. Rule 40.5 of the 2015 IAAF Rules (Elimination or Reduction of Period of Ineligibility Based on Exceptional Circumstances) determines as follows:

“If an Athlete or other Person establishes in an individual case that he bears No Fault or Negligence, the otherwise applicable period of Ineligibility shall be eliminated. Except in the case of a Minor, for an Athlete to establish No Fault or No Negligence in a case where a Prohibited Substance or its Markers or Metabolites is detected in an Athlete’s Sample in violation of Rule 32.2(a) (Presence of a Prohibited Substance), the Athlete must establish how the Prohibited Substance entered his system in order to have his period of Ineligibility eliminated”.

162. The Sole Arbitrator finds that Rule 40.5 of the 2015 IAAF Rules is not applicable in the matter at hand since the Athlete contested to have committed an anti-doping rule violation in the proceedings before the IAAF or the CAS, without putting forward any arguments that could justify a reduction of the otherwise applicable sanction of a four year period of ineligibility in case an anti-doping rule violation would be established.
163. Moreover, the Sole Arbitrator agrees with the IAAF that blood manipulation, either by using non-specified prohibited substances such as EPO or using prohibited methods such as blood transfusions,, is an intentional form of doping and cannot occur by negligence.
164. Rule 40.6 of the 2015 IAAF Rules (Reduction of Period of Ineligibility where there is No Significant Fault or Negligence) determines as follows:

“(a) Reduction of Sanctions for Specified Substances or Contaminated Products for violations of Rules 32.2(a), (b) or (f):

(i) Specified Substances: where the anti-doping rule violation involves a Specified Substance and the Athlete or other Person can establish No Significant Fault or Negligence, then the period of Ineligibility shall be, at a minimum, a reprimand and no period of Ineligibility and, at a maximum, two years’ Ineligibility, depending on the Athlete’s or other Person’s degree of Fault.

(ii) Contaminated Products: in cases where the Athlete or other Person can establish No Significant Fault or Negligence and that the detected Prohibited Substance came from a Contaminated Product, then the period of Ineligibility shall be, at a minimum, a reprimand and no period of Ineligibility and, at a maximum, two years’ Ineligibility, depending on the Athlete’s or other Person’s degree of Fault.

(iii) Except in the case of a Minor, for an Athlete to establish No Significant Fault or Negligence in a case where a Prohibited Substance or its Markers or Metabolites is detected in an Athlete’s Sample in violation of Rule 32.2(a) (Presence of a Prohibited Substance), the Athlete must establish how the Prohibited Substance entered his system in order to have his period of Ineligibility reduced.

(b) Application of No Significant Fault or Negligence beyond the application of Rule 40.6(a): If an Athlete or other Person establishes in an individual case where Rule 40.6(a) is not applicable that he bears No Significant Fault or Negligence, then, subject to the further reduction or elimination as provided in Rule 40.7, the otherwise applicable period of Ineligibility may be reduced based on the Athlete’s or other Person’s degree of Fault, but the reduced period of Ineligibility may not be less than one-half of the period of Ineligibility otherwise applicable. If the otherwise applicable period of Ineligibility is a lifetime, the reduced period under this Rule may be no less than eight years. Except in the case of a Minor, when a Prohibited Substance or its Markers or Metabolites is detected in an Athlete’s Sample in violation of Rule 32.2(a) (Presence of a Prohibited

Substance), the Athlete must establish how the Prohibited Substance entered his system in order to have his period of Ineligibility reduced”.

165. The Sole Arbitrator finds that Rule 40.6 of the 2015 IAAF Rules is not applicable in the matter at hand. The IAAF does not submit that the Athlete used any specified substances to commit the anti-doping rule violations. In addition, the Athlete does not contend the use of contaminated products.
166. With regard to Rule 40.7 of the 2015 IAAF Rules (Elimination, Reduction or Suspension of Period of Ineligibility or other Consequences for Reasons Other than Fault), the Sole Arbitrator also finds that this rule is not applicable in the matter at hand. The Athlete has neither provided a substantial assistance in discovering or establishing an anti-doping rule violations (Rule 40.7(a) of the 2015 IAAF Rules) nor admitted an anti-doping rule violation in the proceedings before the IAAF or the CAS (Rule 40.7(b) and Rule 40.7(c) of the 2015 IAAF Rules).
167. It results from the above that there are no grounds for a reduction of the sanction in the case at hand. The Sole Arbitrator, therefore, concludes that a period of ineligibility of four years is to be imposed on the Athlete.
168. What remains is to determine the starting date of the period of ineligibility and the determination of the disqualification of the results.
169. Rule 40.11 of the 2015 IAAF Rules (Commencement of Period of Ineligibility) determines as follows:

“Except as provided below, the period of Ineligibility shall start on the date of the final hearing decision providing for Ineligibility or, if the hearing is waived or there is no hearing, on the date the Ineligibility is accepted or otherwise imposed.

[...]

(c) Credit for Provisional Suspension or Period of Ineligibility Served: If a Provisional Suspension is imposed and respected by the Athlete or other Person, then the Athlete or other Person shall receive a credit for such period of Provisional Suspension against any period of Ineligibility which may ultimately be imposed. If a period of Ineligibility is served pursuant to a decision that is subsequently appealed, then the Athlete or other Person shall receive a credit for such period of Ineligibility served against any period of Ineligibility which may ultimately imposed on appeal.

[...]”.

170. The Sole Arbitrator finds that, for practical reasons and in order to avoid any eventual misunderstanding in the calculation of the period of ineligibility, the period of ineligibility should start on 8 March 2018, the date of commencement of the provisional suspension and not of the date of the Award. The IAAF did not submit that the Athlete has not respected her provisional suspension. Consequently, the period of provisional suspension is to be credited against the four-year suspension period beginning on the date of the Award.

171. Turning to the disqualification of the Athlete's results, the Sole Arbitrator observes that Rule 40.9 of the 2015 IAAF Rules (Disqualification of Individual Results in Competitions subsequent to Sample Collection or Commission of an Anti-Doping Rule Violation) determines as follows:
- "In addition to the automatic Disqualification of the Athlete's individual results in the Competition which produced the positive sample under Rules 39 and 40, all other competitive results obtained by the Athlete 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, unless fairness requires otherwise, 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".*
172. The IAAF submits that all of the Athlete's results from the date of her first violation, i.e. from 8 July 2015, when Sample 4 was taken, until the date of her provisional suspension on 8 March 2018 must be disqualified pursuant to the aforementioned provision.
173. The Sole Arbitrator notes that pursuant to the literal wording of Rule 40.9 of the 2015 IAAF Rules all the competitive results of the Athlete as from the moment the positive sample was collected until her provisional suspension was pronounced would have to be disqualified.
174. The Sole Arbitrator observes that the present facts are not a case of a specific "positive sample". It is a case that falls under Rule 40 of the 2015 IAAF Rules. Consequently, the Athlete's competitive results are nevertheless subject to disqualification. A complicating factor in this respect is that an anti-doping rule violation established on the basis of an ABP can normally not be determined on a specific date but merely for a certain period. This difficulty has been identified in CAS jurisprudence (CAS 2010/A/2235, para. 116).
175. Therefore, based on a literal reading of Rule 40.9 of the 2015 IAAF Rules, all results of the Athlete as from this date until 8 March 2018 (the date the Athlete was provisionally suspended) have to be disqualified.
176. Moreover, the Sole Arbitrator agrees with the IAAF that there is no room for the application of the "fairness exception" under Rule 40.9 of the 2015 IAAF Rules, which has not been raised by the Athlete.
177. The Sole Arbitrator finds that the general principle of fairness must prevail in order to avoid disproportional sanctions. According to established CAS jurisprudence, the principle of proportionality requires to assess whether a sanction is appropriate to the violation committed in the case at stake. Excessive sanctions are prohibited (see *e.g.* CAS 2005/A/830, at paras. 10.21 – 10.31; CAS 2005/C/976 & 986, at paras. 139, 140, 143, 145 – 158; CAS 2006/A/1025, at paras 75 – 103; TAS 2007/A/1252, at paras. 33 - 40; CAS 2010/A/2268 at paras. 141 f.; all of them referring to and analysing previous awards and doctrine).
178. The Sole Arbitrator considers it fair to disqualify any results of the Athlete between 8 July 2015 and 8 March 2018 considering that there is enough evidence that the Athlete used prohibited methods during this period and committed a serious anti-doping rule violation.

179. Consequently, the Sole Arbitrator holds that a period of ineligibility of four years is to be imposed on the Athlete from 8 March 2018 and that the results of the Athlete from 8 July 2015 until 8 March 2018 are to be disqualified, including the forfeiture of any titles, awards, medals, points and prize and appearance money.

C. Conclusion

180. Based on the foregoing, and after taking into due consideration all the evidence produced and all arguments made, the Sole Arbitrator finds that:
- i. The Athlete violated Rule 32.2(b) of the 2015 IAAF Rules (Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method).
 - ii. The Athlete engaged in using doping from 8 July 2015 (the eve of the European Championship U23) through to 18 October 2017 (after the end of the competitive season 2017), *i.e.* a period of more than two years.
 - iii. A period of ineligibility of four years as from 8 March 2018 is to be imposed on the Athlete and all results of the Athlete from 8 July 2015 until 8 March 2018 are to be disqualified, including the forfeiture of any titles, awards, medals, points and prize and appearance money.

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. The defence of lack of jurisdiction of Ms Mariya Ponomareva is dismissed and the jurisdiction of CAS is confirmed.
 2. The claim filed on 2 July 2018 by the International Association of Athletics Federations against the Russian Athletic Federation and Ms Mariya Ponomareva is upheld.
 3. A period of ineligibility of four years is imposed on Ms Mariya Ponomareva starting from 8 March 2018.
 4. All results of Ms Mariya Ponomareva from 8 July 2015 until 8 March 2018 are to be disqualified, including forfeiture of any titles, awards, medals, points and prize and appearance money.
- (...)
8. All other and further prayers or requests for relief are dismissed.