

**IN THE MATTER OF PROCEEDINGS BROUGHT UNDER THE ANTI-DOPING RULES OF
WORLD ATHLETICS**

Before:

Anna Smirnova (Chair)
Patrick Grandjean
Dennis Koolgaard

BETWEEN:

World Athletics

Anti-Doping Organisation

and

Ms. Abeba-Tekulu Gebremeskel

Respondent

DECISION OF THE DISCIPLINARY TRIBUNAL

I. INTRODUCTION

1. The Claimant, World Athletics (formerly known as International Association of Athletics Federations (IAAF); hereinafter, the "*WA*") is the governing body for the sport of athletics worldwide, having its registered seat in Monaco. In these proceedings *WA* is represented by the Athletics Integrity Unit (hereinafter, the "*AIU*") as per Rule 1.2 World Athletics Anti-Doping Rules in force from 1 November 2019 (hereinafter, the "*ADR*").

THE INDEPENDENT EXPERTS

2. The Respondent, Ms. Abeba-Tekulu Gebremeskel, born on 20 January 1997¹, national of Ethiopia, is a long-distance runner (hereinafter, the "*Athlete*"). Throughout these proceedings, the Athlete was represented by different counsels all acting *pro bono*, namely: Mr. Martin Palmer of Littleton Chambers (from 22 March 2021 through 11 August 2021); Messrs. Adam Flacks and Mr. Andrew Ford of LK Law LLP (from 7 September 2021) and Mr. James Green of Littleton Chambers (on 22 November 2021).
3. The AIU and the Athlete are hereinafter collectively referred to as the "*Parties*".
4. By the Notice of Charge of 22 February 2021 (hereinafter, the "*Notice of Charge*"), the Athlete was charged by the AIU with an Anti-Doping Rule Violation (hereinafter, the "*ADRV*") under the Anti-Doping Rules in connection with alleged abnormalities in the haematological module of her Athlete Biological Passport (hereinafter, the "*ABP*").
5. The Athlete denied the ADRV and requested that the matter is considered in the hearing before the Disciplinary Tribunal.

II. FACTUAL BACKGROUND

1) *ABP in general*

6. The ABP consists of an electronic record that compiles and collates a specific athlete's test results and other data and is based on a longitudinal monitoring of an athlete, designed to be an "indirect" method of doping detection. It focuses on the effect of prohibited substances and methods on the athlete's haematological values rather than the identification of a specific substance or method in the athlete's sample.

¹ The date of birth was confirmed by the Athlete directly during the hearing on 22 November 2021.

7. There are three most commonly known substances or methods used for blood doping, namely: (i) administering recombinant human erythropoietin (hereinafter, "EPO") (administered by injection to trigger erythropoiesis, the stimulation of red blood cells); (ii) synthetic oxygen carriers (i.e., infusing blood substitutes such as a haemoglobin-based oxygen carrier or perfluorocarbons to increase haemoglobin concentration (hereinafter, "HGB") well above normal levels; and (iii) blood transfusions (i.e., infusing a matching donor's or the athlete's own (previously extracted) red blood cells to increase HGB well above normal).
8. The World-Anti-Doping Agency (hereinafter, "WADA") developed and refined the concept of the ABP, which WA formally introduced to its blood testing programme in 2009.
9. The haematological module of the ABP records the values of haematological parameters that are known to be sensitive to changes in red blood cell production. The values collected and recorded include haemoglobin concentration and percentage of immature red blood cells, namely reticulocytes (hereinafter, "RET%").
10. The ratio of the HGB and the RET% values is also used to calculate a further value, known as the OFF-score, which is sensitive to changes in erythropoiesis. The combination of a high HGB and low RET% or of a low HGB and high RET% causes a high OFF-score.
11. The marker values from the blood samples collected in the ABP programme are fed into a statistical model, known as the adaptive model. The adaptive model uses an algorithm that takes into account both (i) variability of such values within the population generally (i.e., blood values reported in a large population of non-doped athletes) and (ii) factors affecting the variability of each particular athlete's individual values (including, gender, ethnic origin, age, altitude, type of sport, and instrument related technology).

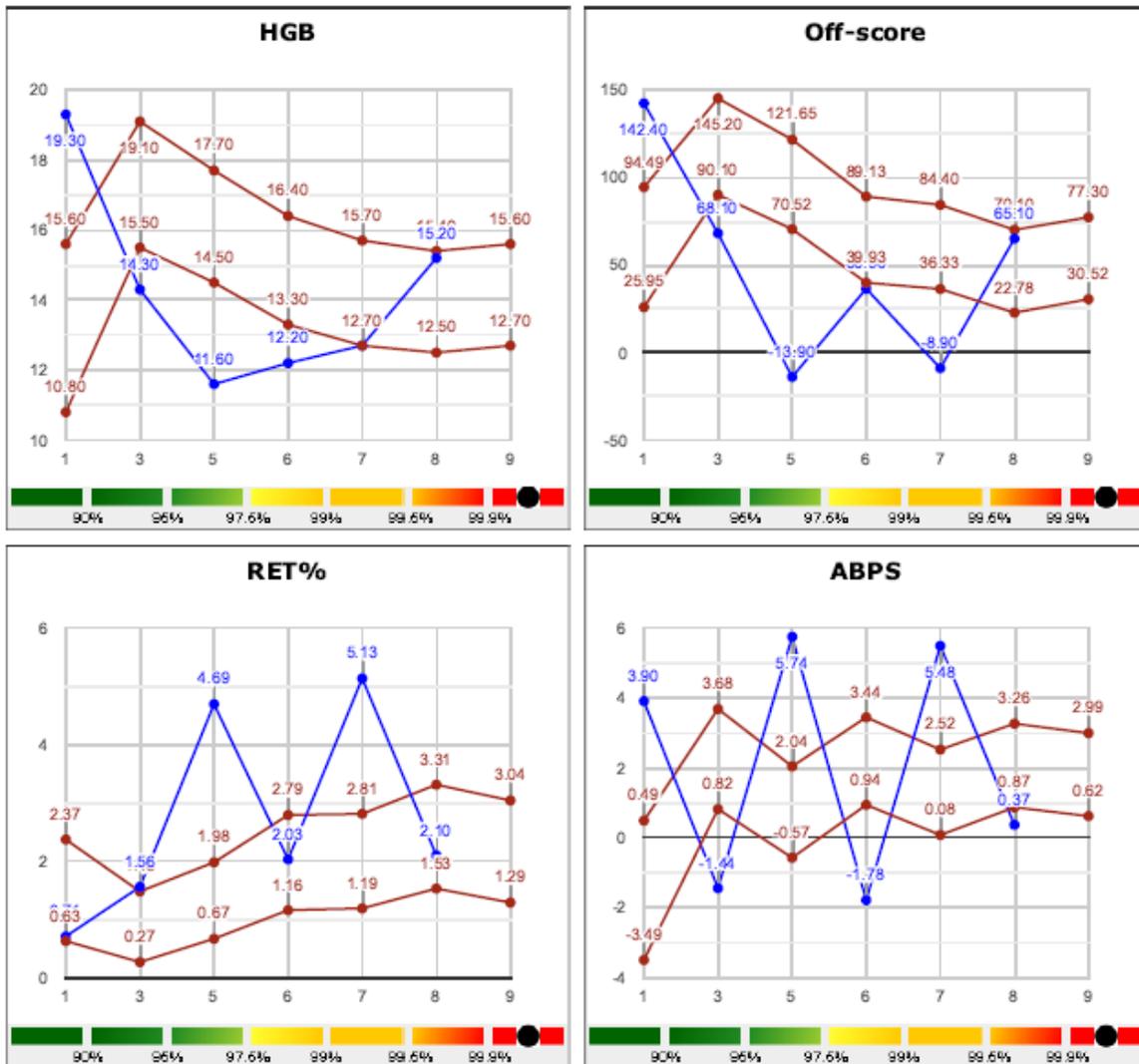
12. The selected biological markers are monitored over a period of time and a longitudinal profile that establishes an athlete's upper and lower limits within which the athlete's values would be expected to fall, assuming normal physiological conditions (*i.e.*, the athlete is healthy and has not been doping) is created.
13. The adaptive model calculates the probability of abnormality of the sequence of values in the ABP profile. At the outset, when the first samples are collected from a particular athlete, the upper and lower limits are based on population norms at the level of specificity of 99%, but over time, as samples are collected from the same athlete, the limits become individualised based on the athlete's individual values. An athlete therefore becomes his/her own point of reference each time a blood sample is recorded.
14. As samples are collected, the adaptive model calculates where the reported HGB, RET% and OFF-score values fall within the athlete's expected distribution. After each new test, a new range of expected results for the athlete is determined.
15. ABP cases are not typical 'Presence' violations where A and B samples are relied upon and in principle suffice to establish the commission of an ADRV. Therefore, WA implements its ABP program in accordance with the World Athletics Anti-Doping Regulations through a four-step procedure designed to safeguard an athlete's right to due process, *i.e.* *i)* an assessment by the adaptive model to determine whether the athlete's blood profile is normal or abnormal; *ii)* if it is considered abnormal, an analysis of the ABP is done by three scientific experts who do not know the athlete's identity; *iii)* the athlete is granted an opportunity to challenge the experts' conclusions; and *iv)* disciplinary proceedings are initiated if the expert panel, upon consideration of the record and the athlete's submissions, unanimously confirm their position that it is likely that the athlete used a prohibited substance or prohibited method and it is highly unlikely that the profile is the result of any other cause.

2) The Athlete's ABP Profile

16. During the period from 30 November 2019 through 21 July 2020, WA collected eight (8) ABP blood samples from the Athlete.
17. Each of the samples was analysed by a WADA-accredited laboratory and logged in the Anti-Doping Administration & Management System (hereinafter, "ADAMS") using the adaptive model.
18. The details of the Athlete's ABP, showing the Athlete's HGB, RET% and OFF-score for the valid samples, are summarized in the table below:

No	Code	Date	HGB	RET%	OFF-Score
1	664420	30.11.2019	19.3	0.71	142.4
2	676032	24.12.2019	<i>INVALID</i>		
3	638873	11.01.2020	14.3	1.56	68.1
4	693468	29.02.2020	<i>INVALID</i>		
5	471590	17.03.2020	11.6	4.69	-13.9
6	699276	26.05.2020	12.2	2.03	36.5
7	471838	08.06.2020	12.7	5.13	-8.9
8	699273	21.07.2020	15.2	2.1	65.1

19. The Athlete's biological markers (blue line) and the individualised upper and lower limits (red/parallel lines) at a specificity of 99% are reflected as follows:



20. The Athlete's ABP was submitted to a panel of three qualified and experienced experts for an anonymous review: Dr. Jakob Sehested Morkeberg, Prof. Giuseppe d'Onofrio and Dr. Yorck Olaf Schumacher (hereinafter, the "Expert Panel"), who each individually evaluated the Athlete's ABP, the Athlete's race schedule and the Athlete's whereabouts information, without knowing the identity of the Athlete, but being aware that it concerned a female track and field athlete. Each of them delivered an independent initial review.

21. On 22 October 2020, the Expert Panel produced the first joint expert report 'Evaluation of Blood Profile BP21DYD5 – Joint expert opinion' (hereinafter, the "First Expert Opinion").

22. In the First Expert Opinion the Expert Panel determined as follows:

(...) In the automated analysis by the adaptive model, which determines whether fluctuations in the biomarkers of the Athlete Biological Passport are within the expected individual reference ranges for an athlete or not, the profile was flagged with abnormalities at 99% specificity on several occasions:

- *Sample 1 Upper limit for haemoglobin concentration and OFF score*
- *Sample 3 Upper limit for reticulocyte%, lower limit for haemoglobin concentration and OFF score*
- *Sample 5 Upper limit for reticulocyte%, lower limit for haemoglobin concentration and OFF score*
- *Sample 6 Lower limit for haemoglobin concentration and OFF score*
- *Sample 7 Upper limit for reticulocyte%, lower limit for OFF score*

(...)

In summary, the most likely scenario involves the artificial increase of red cell mass using an erythropoietic stimulant combined with intravenous iron leading to the OFF-pattern seen in sample 1 and subsequent measures (blood letting) to correct the associated abnormality in the blood picture (high Ferritin), as seen in samples 5 and 7.

It is therefore our unanimous opinion that considering the information available at this stage and in the absence of an appropriate physiological explanation, the likelihood of the abnormalities described above being due to blood manipulation is very high.

Analytical shortcomings are highly unlikely to have caused the suspicious pattern in the profile. Environmental factors such as altitude exposure are also improbable to be the unique causal effect, as based on the available documentation, the athlete sojourned at altitude most of the time covered by the profile.

We therefore recommend requesting the athlete's explanations for her blood values regarding the points highlighted above."

23. On 20 November 2020, the AIU wrote to the Athlete with a request for explanations regarding the Adverse Passport Finding (hereinafter, "APF"), declared in accordance with Rule 8.10 (e) of the ADR, because the Expert Panel concluded unanimously that it was highly likely that a prohibited substance or prohibited method had been used and that it was highly unlikely that the APF could be a result of any other cause.
24. On 26 November 2020, the Athlete's legal representative at the time, Mr. Michiel van Dijk, requested an extension of 12-weeks to provide the Athlete's explanation.
25. The AIU agreed to provide the Athlete with a 6-weeks extension.
26. On 8 January 2021, the Athlete provided her explanations for the abnormalities in the ABP. She also provided an expert report from the qualified and experienced expert Dr. Peter A.W. Te Boekhorst (hereinafter respectively, the "*Athlete's Explanations*" and the "*Boekhorst Report*").
27. The Athlete's Explanations can be summarised as follows:
 - *"The increased Hb level might be explained by plasma volume shifts, dehydration, pre-analytic errors of the sample, or just the risk of abnormal lab values that might even occur in healthy individuals.*
 - *Fluctuations in reticulocyte counts that were found in other samples of this athlete might be caused [by] the combination of phlebotomies and periodically blood loss (menses). In addition reticulocyte counts might vary during the day and may contribute to the values found.*

- *Doping scenarios are highly unlikely. Iron supplementation alone will not increase Hb levels. In case of combined epo administration, the reticulocyte count of sample 1 would not be within the normal range but elevated. Another argument why artificial iron supplementation leading to iron overload is highly unlikely is the observation despite 2 phlebotomies were done, the ferritin level decreased from >1500 ng/ml to 880 ng/ml. This suggests another pathological mechanism of increased ferritin and transferrin saturation.*
- *The abnormal finding of abdominal ultrasound [REDACTED] might explain some of the abnormal blood values (ferritin and transferrin saturation) and suggest that there is another underlying disorder. More diagnostic procedures are needed to diagnose this athlete (molecular-diagnostic tests for hemochromatosis, MRI T2* for iron content in heart/liver, liver biopsy, and follow-up of hematological blood parameters).*
- *Looking at all the test results my final conclusion is that there are several abnormal findings that can not easily be explained. Additional diagnostic procedures should be done to clarify the underlying disorder that explains the abnormal findings. Because there are still many uncertainties, it is too early to conclude that doping usage is involved in this case.”*

28. The inferences made by Dr. Te Boekhorst in the Boekhorst Report can be summarised as follows:

- *The increased Hb level was only present for a short period of time. This could be caused by a decreased plasma volume that was only briefly present (...)*
- *There is a possibility that the Hb that was actually measured in sample 1 was not correct due to analytical problems (lab error). Incorrect measurements of Hb might be caused by inadequate sample handling before the measurement is done (...)*

- *Normal values of Hb that are reported by laboratories, are derived from healthy persons. These values represent normal values for 99% of healthy individuals. As a result some healthy individuals have Hb levels out of range because with normal values. This could also be the explanation for this athlete. Because we have limited values of this athlete, and because of the phlebotomies that were done during this, we can not be sure what is her usual Hb range in a normal situation (...)*
- *[In] general practice, if we take 2 blood samples of 1 patient with an interval of 30 minutes, the lab will not report identical values. Lab values always show variation even when blood samples of 1 patient are taken and analyzed on the same day. Therefore, another possible explanation of the high Hb could be the result of this variation. If the athlete has an physiological Hb at the upper limit of normal, then the lab variation could occasionally lead to an even higher Hb. This could also be the case here because we only have one abnormal Hb result.*
- *[An abdominal ultrasound suggested the ██████████ ██████████ this finding indicates that there might be an underlying disorder that explains some abnormal findings like high ferritin an [SIC] transferrin saturation*
- *Doping scenarios are highly unlikely. Iron supplementation alone will not increase Hb levels. In case of combined epo administration, the reticulocyte count of sample 1 would not be within the normal range but elevated. Another argument why artificial iron supplementation [SIC] leading to iron overload is highly unlikely is the observation despite 2 phlebotomies were done, the ferritin level decreased from >1500 ng/ml to 880 ng/ml.*

29. Based on the Athlete's Explanations and the Boekhorst Report, it can be inferred that the Athlete's position in essence was that abnormal values of the Athlete's ABP were due to another reason than blood doping and that the use of prohibited substance or of a prohibited method was highly unlikely.

30. On 5 February 2021, the Expert Panel, based on the Athlete's Explanations and the Boekhorst Report, rendered the second joint opinion '*Blood Profile BP21DYD5 – Evaluation of athlete's arguments*' (hereinafter, the "Second Expert Opinion", collectively with the First Expert Opinion referred to as the "Expert Opinions").

31. In the Second Expert Opinion, the Expert Panel concluded as follows:

"It is correct that acute physical activity might result in a fluid loss and hence plasma volume contraction. (...) Nevertheless, it has been well-established in the scientific literature that such potential fluid losses are not only reversed but overcompensated within the first 1-2 hours after exercise, which will result in a reduction in Hb (...). For this reason, samples for the ABP should not be collected within the first two hours after physical activity (WADA ABP Operating Guidelines). From the information in ADAMS, it is evident that the athlete did not have a training session nor competition in the two-hour period prior to the collection of Sample 1. Hence it is highly unlikely that any major plasma volume contraction has taken place prior to the sample collection. Furthermore, considering that the normal Hb level of the athlete is probably around 15.2 g/dL (Sample 8) (as hypothesized by Dr. Boekhorst and comparable to a typical Ethiopian female from the highlands (...)), an increase in Hb concentration from 15.2g/dl to 19.3 g/dL (Sample 1) would require a decrease in plasma volume of 39% considering a stable hemoglobin mass (...). Such a decrease is highly unlikely and not supported by any evidence provided by the expert.

(...) the prevalence of primary hemochromatosis is low in non-Caucasian populations, and virtually non-existent in an African population. Furthermore, the pathology usually becomes apparent in the elderly population (~50 years)(...)

It is also suggested that the elevated serum ferritin is associated with the diagnosis of [REDACTED] documented by an abdominal ultrasound examination on the 04.02.2020 (...). While this is, in theory, correct, such elevated ferritin values in a young, otherwise healthy individual are highly likely not caused by [REDACTED]. Elevated ferritin values [REDACTED] are mostly seen in multimorbid, elderly patients and rarely reach the ferritin levels seen in the present case (...). All in all, it appears

much more likely that the high ferritin values have been caused by repeated, uncontrolled parenteral iron administration.

Conclusion

According to the athlete's statement and the medical certificates, it is possible that the high %ret values in Samples 5 and 7 and the low Hb values in Samples 5-7 are the result of blood donations before the sample collections. Therefore, the arguments forwarded by the athlete can in principle explain the hematological abnormality in the latter part of the profile (3-8). On the other hand, the high OFF-score driven by a very high Hb and a low %ret value remains unexplained. These results are indicative of blood doping before a competition on the 1st of December 2019.

Based on the information available at this stage and our review of the profile, the response of the athlete did not offer any suitable explanation for her abnormal blood values in Sample 1. Therefore, we conclude that the likelihood of the abnormalities described above being due to blood manipulation is high. On the contrary, the likelihood of a physiological or a medical condition causing the described result is very low."

3) Notice of Charge

32. On 22 February 2021, the AIU issued the Notice of Charge whereby the Athlete had been charged with committing an Anti-Doping Rule Violation, namely the use of a Prohibited Substance or a Prohibited Method pursuant to Rule 2.2 of the ADR on the basis of abnormal variations in the haematological profile of the ABP revealed between 30 November 2019 and 21 July 2020.
33. In the Notice of Charge the AIU referred to the inferences of the Expert Panel which confirmed that it was possible that the abnormalities detected in Sample 5 and Sample 7 of the Athlete's ABP were the result of blood donations before the sample collections,

however that the high OFF-score driven by a very high HGB and a low RET% value in Sample 1 remained unexplained and that this result was indicative of blood doping before a competition on 1 December 2019.

34. Pursuant to paragraph 2.1 of the Notice of Charge, the Athlete was subject to a Provisional Suspension effective immediately; the Athlete was banned temporarily from participating in any competition or activity until the matter was fully determined.
35. Pursuant to paragraph 4.2 of the Notice of Charge, the Anti-Doping Rule Violation specified in paragraph 1 thereof constituted the first anti-doping rule violation of the Athlete. Therefore, the Athlete was subject to the mandatory period of ineligibility pursuant to Rule 10.2.1 (a) of the ADR, which was a period of ineligibility of four years, beginning on the date that the decision imposing consequences was issued, with credit for the period of Provisional Suspension.
36. On 12 March 2021, the Athlete's representative Ms. Hannah Biwott van de Veen informed the AIU that (i) the Athlete was no longer represented by Mr. Michiel van Dijk, (ii) the Athlete did not accept the sanction mentioned in the Notice of Charge and (iii) that it would be her wish to have a hearing.

III. APPLICABLE LAW AND JURISDICTION

37. The Parties agreed and confirmed expressly during the hearing on 22 November 2021 that the ADR edition effective as from 1 November 2019 was applicable to the substantive matters of the dispute, whereas the ADR edition effective from 1 January 2021 was to be applied to the procedural issues.

38. Pursuant to Rule 1.2 of the ADR in accordance with the World Athletics Constitution, WA has established an Athletics Integrity Unit whose role is to protect the integrity of Athletics; WA has delegated implementation of these Anti-Doping Rules to the Integrity Unit, including but not limited to the following activities in respect of International-Level Athletes and Athlete Support Personnel: Education, Testing, Investigations, Results Management, Hearings, Sanctions and Appeals.
39. Pursuant to Rule 1.4 of the ADR, WA has established a Disciplinary Tribunal to hear alleged anti-doping rule violations and other breaches of these Anti-Doping Rules.
40. Pursuant to Rule 1.8 of the ADR, within the overall pool of athletes who are bound by and required to comply with ADR, there are athletes who shall be considered International-Level Athletes, such as for instance, athletes who are in the International Registered Testing Pool (Rule 1.8 (a), athletes entered for or competing in Label Road Races (limited to those athletes with Gold, Silver and Bronze Status as determined by WA) (Rule 1.8.(b)(vi)).
41. The Athlete is a member of the Ethiopian Athletic Federation, which is itself a member of WA. The Athlete is included in the International Registered Testing Pool. On 1 December 2019, the Athlete participated in the Maratón Valencia Trinidad Alfonso EDP, a Gold Label Road Race.
42. Based on the foregoing and in the absence of any objections from the Parties, the Panel has confirmed its jurisdiction to rule in this matter.
43. Additionally, the Panel has found that the World Athletics Anti-Doping Regulations in force from 1 November 2019 was applicable with respect to samples 1-5 and the regulations in force as from 1 April 2020 was applicable with respect to samples 6-8 (hereinafter, the "*Regulations*").

IV. PROCEDURE BEFORE THE DISCIPLINARY TRIBUNAL

44. On 8 April 2021, a Preliminary Meeting was held via telephone conference where the following directions were issued:

- *By 5pm (BST) on Thursday 29 April 2021, the AIU shall submit a brief with arguments on all issues that World Athletics wishes to raise at the hearing and written witness statements from each fact and/or expert witness that the AIU intends to call at the hearing, setting out the evidence that World Athletics wishes the Disciplinary Tribunal to hear from the witness, and enclosing copies of the documents that the AIU intends to introduce at the hearing;*
- *By 5pm (BST) on Thursday 20 May 2021, the Athlete shall submit an answer brief, addressing the AIU's arguments and setting out any arguments on the issues that the Athlete wishes to raise at the hearing, as well as written witness statements from the Athlete and/or from each other witness (fact and/or expert) that the Athlete intends to call at the hearing, setting out the evidence that the Athlete wishes the Disciplinary Tribunal to hear from the witness, and enclosing copies of the documents that the Athlete intends to introduce at the hearing;*
- *By 5pm (BST) on Thursday 3 June 2021, the AIU may submit a reply brief, responding to the Athlete's answer brief and producing any rebuttal witness statements and/or documents;*

(hereinafter, the "*Initial Directions*")

45. On 9 April 2021, the appointment of Ms. Anna Smirnova as the Chair of the Panel was formally confirmed; on 19 April 2021, Mr. Dennis Koolaard and Mr. Patrick Grandjean were appointed to hear the matter alongside with Ms. Anna Smirnova (all together hereinafter referred to as the "*Panel*").

46. No objections were raised by the Parties with respect to the appointment of the Panel.
47. On 29 April 2021, in accordance with the Initial Directions, the AIU filed its brief with exhibits (the "*AIU Brief*").
48. Within the deadline of 5pm (BST) on 20 May 2021 established in accordance with the Initial Directions, the Athlete did not submit her answer brief.
49. On 3 June 2021, the Panel issued the Notice of the Hearing calling the AIU and the Athlete to a hearing to take place on 14 June 2021 as set forth in the Initial Directions.
50. On 8 June 2021, Mr. Martin Palmer, the Athlete's *pro bono* counsel at the time, *inter alia* requested that the hearing date was adjourned to the first available date falling after 13 August 2021, and that the time for the Athlete's answer brief was extended until 13 August 2021.
51. On 9 June 2021, the AIU raised no specific objection against the postponement of the procedure as proposed by the Athlete's counsel, but indicated that it regretted the significant extensions being sought by the Athlete and considered it disappointing that this matter would be delayed as a result. Furthermore, following an enquiry from the Athlete, the AIU confirmed that the costs of an interpreter at the hearing would be borne by the AIU, in accordance with Rule 8.8.6 of the ADR.
52. On 10 June 2021, the Panel issued updated directions, whereby it specified the following procedural schedule:
- *By 5pm (BST) on Friday 9 July 2021, the Athlete shall submit an answer brief, addressing the AIU's arguments and setting out any arguments on the issues that the Athlete wishes to raise at the hearing, as well as written witness statements from the Athlete and/or from each other witness (fact and/or expert) that the*

Athlete intends to call at the hearing, setting out the evidence that the Athlete wishes the Disciplinary Tribunal to hear from the witness, and enclosing copies of the documents that the Athlete intends to introduce at the hearing; in the event the Athlete and/or her counsel anticipate that for any reason (including without limitation miscommunication between the Athlete and her counsel) the foregoing deadline will not be respected, the Athlete shall provide the update and her suggestion as regards the rectification of the situation;

- *By 5pm (BST) on Friday 20 August 2021, the AIU may submit a reply brief, responding to the Athlete's answer brief and producing any rebuttal witness statements and/or documents*

(hereinafter, the "*Updated Directions*")

53. The Athlete failed to submit her answer brief within 9 July 2021, as specified in the Updated Directions.
54. On 19 July 2021, the Panel invited the AIU and the Athlete by 5 pm (BST) on 26 July 2021 to provide their respective positions, requests and/or suggestions as regards the procedural schedule.
55. On 26 July 2021 at 16:11 BST, Mr. Martin Palmer, the *pro bono* counsel of the Athlete at the time, informed that one of the problems confronting the Athlete was that the attempts to secure appropriate genetic test results failed due to the degradation of samples sent to India for testing. The Athlete at that time was in Ethiopia, and the effective transmission of air freight was significantly affected by a reduction in air transport options from East Africa to India. Mr. Palmer requested the extension of time by twelve weeks to enable the Athlete to investigate means of producing evidence to support her appeal.

56. On 26 July 2021 at 17:35 BST, Mr. Tony Jackson of the AIU submitted that the Athlete's request for an extension of twelve weeks should be rejected and that the Athlete could be afforded a final (short) deadline (which was not to be extended).
57. Following the exchange of communications with the Athlete and the AIU, on 28 July 2021, the Panel directed that a final deadline until 6 August 2021 was granted to the Athlete to submit her answer brief; the Athlete was particularly invited to provide the comprehensive details, explanations and evidence regarding the genetic testing as referred to by Mr. Martin Palmer; the Panel specified that in the event the Athlete failed to file her answer brief within the final deadline of 6 August 2021, then no further written submissions would be expected from the Parties and no further time extensions would be granted, unless in exceptional circumstances where a party submitted a substantiated request corroborated by evidence.
58. Within the final deadline of by 5pm (BST) on Friday 6 August 2021 established in accordance with the Directions of 28 July 2021, the Athlete failed to submit her answer brief.
59. On 17 August 2021, Ms. Marieke Van de Veen, a representative of the Athlete, sent to Sport Resolutions a document, stating the results of a test conducted in respect of the detection of the hemochromatosis of the Athlete (hereinafter, the "*Gene Test Results*").
60. On 19 August 2021, the AIU maintained that the Athlete's email dated 17 August 2021 and the attached Gene Test Results had been submitted manifestly late and should not be admitted.
61. Also on 19 August 2021, considering that the Gene Test Results were submitted by the Athlete outside the timeframe established in accordance with the Directions of 28 July 2021, the Panel decided not to admit this document on the record.

62. In accordance with the Directions of 8 April 2021, 10 June 2021 and 28 July 2021, the Panel decided to proceed with the hearing notwithstanding the absence of the answer brief from the Athlete.
63. Following the consultation with the Parties and several prior dates proposed by the Panel, the AIU and the Athlete were invited to a hearing to be held by video-conference on 22 November 2021.
64. On 5 November 2021, LK Law LLP, the new *pro bono* counsel of the Athlete, requested the Panel to reconsider its decision and permit the Athlete to rely on the Gene Test Results, dated 16 August 2021; furthermore, it was requested that the Panel allowed the Athlete to rely on laboratory reports showing her ferritin levels and transferrin saturation, dated 26 February 2020, 20 May 2020 and 24 November 2020 (hereinafter, the "*Ferritin Test Results*").
65. On 12 November 2021, the AIU objected against the admission on the Gene Test Results and the Ferritin Test Results.
66. On 15 November 2021, the Panel requested the Secretariat to inform the Parties as follows:
1. *The Hearing shall take place as established pursuant to the Notice of Hearing of 8 September 2021 on 22 November 2021 at 10am BST;*
 2. *The Athlete's request regarding the admission of Gene Test Results is dismissed (further details to be provided in the Decision);*
 3. *The Athlete's request regarding the admission of Ferritin Test Results is dismissed (further details to be provided in the Decision);*

4. *The Athlete may call Dr. Te Boekhorst as a witness, however, his testimony shall be limited by the scope of the Report as of 8 January 2021 (Exhibit 9, AIU Brief) (further details to be provided in the Decision);*
5. *The deadlines specified in points 16 and 17 of the Notice of the Hearing of 8 September 2021 are extended until 11 am BST on 18 November 2021.*

67. On 22 November 2021 the hearing took place via zoom video conference (hereinafter, the "*Hearing*"). The following persons attended the Hearing:

The Panel

- Ms. Anna Smirnova (the Chair)
- Mr. Dennis Koolaard
- Mr. Patrick Grandjean

On behalf of the AIU

- Mr. Ross Wenzel, legal counsel
- Mr. Tony Jackson, Athletics Integrity Unit
- Mr. Laura Gallo, Athletics Integrity Unit
- Ms. Annalisa Cherubino, Athletics Integrity Unit

On behalf of the Athlete

- Ms. Abeba-Tekulu Gebremeskel, the Athlete herself
- Mr. Dawit Hiluf, non-professional interpreter for the Athlete
- Ms. Marieke van de Veen, the Athlete's representative
- Ms. Hannah Biwott-van de Veen, the Athlete's representative
- Mr. James Green, legal counsel
- Mr. Nicholas Damski, legal counsel

- Mr. Gareth Ansell, legal counsel

Experts

- Professor Giuseppe d’Onofrio, AIU Expert
- Dr. Yorck Olaf Schumacher, AIU Expert
- Dr. Peter A. W. Te Boekhorst, Athlete’s Expert

- Mr. Joshua Ingham-Headland, Disciplinary Tribunal Secretariat who assisted the Panel and the Parties during the Hearing.

68. At the end of the Hearing the Parties expressly confirmed that they were satisfied with the proceedings and no complaints or objections were raised.

V. POSITION OF THE PARTIES

69. In the course of the consideration and resolution of the present matter, the written and oral submissions of the Parties have been taken into account by the Panel. In the absence of written submissions from the Athlete, the Panel has taken into consideration the oral pleading in the course of the Hearing on 22 November 2021.

70. The following summary of the Parties’ positions is illustrative and does not necessarily comprise each contention put forward by the Parties. The Panel, however, has carefully considered all the submissions made by the Parties, even if no explicit reference is made in what immediately follows:

World Athletics

71. According to the AIU Brief, *"World Athletics' position is that the Athlete's ABP profile constitutes clear evidence that the athlete has committed an ADRV in breach of Rule 2.2 due, in particular to the extreme abnormality in Sample 1"*.
72. The AIU submissions made in the AIU Brief can be in essence summarized as follows:
- *Sample 1 shows an extremely high HGB value on the eve of a major competition, coupled with low RET%, resulting in a high OFF score, which is characteristic of a supraphysiological increased circulating red-cell mass.*
 - *The Expert Panel's position remains that the explanations advanced by the Athlete fail to explain the haematological abnormalities in the Athlete's ABP.*
 - *Based on the expert evidence, including the First Expert Opinion and Second Expert Opinion, the Tribunal can be comfortably satisfied that the Athlete has committed an anti-doping rule violation in accordance with Rule 2.2.*
 - *The Athlete has failed to meet her burden to establish that her anti-doping rule violation was not intentional and shall therefore be subject to the mandatory period of Ineligibility of four years in accordance with Rule 10.2.1(a).*
 - *In accordance with Rule 10.10.2, the period of Ineligibility shall begin on the date that the Tribunal issues its decision in this matter. However, the AIU accepts that the Athlete may gain credit for the period of Provisional Suspension served since 22 February 2021 against the period of Ineligibility imposed pursuant to Rule 10.10.2(a), provided it has been effectively served.*

- *Pursuant to Rule 10.8, any competitive results obtained by the Athlete between that date and the date of her Provisional Suspension on 22 February 2021 shall be disqualified with all resulting consequences, including the forfeiture of any medals, titles, ranking points and prize and appearance money (unless the Tribunal determines that fairness requires otherwise).*

73. In the Brief, the AIU has made the following requests for relief:

- (i) to rule that the Tribunal has jurisdiction to decide on the subject matter of this dispute;*
- (ii) to find that the Athlete has committed an anti-doping rule violation pursuant to Rule 2.2;*
- (iii) to impose a period of Ineligibility of four (4) years upon the Athlete for the anti-doping rule violation, commencing on the date of the Tribunal's award;*
- (iv) to give credit for the period of Provisional Suspension imposed on the Athlete from 22 February 2021 until the date of the Tribunal's Award against the total period of Ineligibility, provided that it has been effectively served by the Athlete;*
- (v) to order the disqualification of any results obtained by the Athlete between 30 November 2019 and 22 February 2021 with all resulting consequences including the forfeiture of any titles, awards, medals, points and prize and appearance money pursuant to Rule 10.8; and*
- (vi) to award World Athletics a contribution to its legal costs and expenses incurred in relation to this matter.*

74. During the Hearing the AIU in principle reiterated its position stated in the AIU Brief and maintained the following:

- *Sample 1 is abnormal to the extent of 99%; the values of Sample 1 can be considered as direct danger to the Athlete's health condition;*
- *The expertise provided by Dr. Te Boekhorst is purely speculative and does not provide for any clear explanation of the abnormalities in the Athlete's ABP;*
- *In view of the nature of the blood doping, the erythropoiesis-stimulating agents (namely, EPO) is the most likely scenario;*
- *EPO is taken only by injections and cannot be explained by some kind of contamination, and therefore the ADRV can only be intentional;*
- *4-years period of ineligibility shall be imposed on the Athlete.*

Athlete

75. The Athlete's argumentation brought forward during the Hearing in essence can be summarised as follows:

- *The AIU has not proven that the ADRV was effectively committed by the Athlete; the case at hand does not involve the detection of a Prohibited Substance being allegedly used by the Athlete, whereas the assumptions of the AIU are based on the ABP findings of higher level of haemoglobin and lower level of reticulocytes in Sample 1;*
- *There is no sufficient data and/or evidence to infer definitively whether the Athlete has committed the ADRV or not; namely, the Athlete has specified that there is only one outlier and two other samples which cannot serve as sufficient basis for the conclusions; the set of data on file does not provide for the certainty as regards the normal range of the Athlete's haemoglobin level and there is no data to explain the existing discrepancies in the ABP values;*

- *The Expert Opinions relied upon by the AIU do not amount to sufficient evidence in order to corroborate the Adverse Passport Finding;*
- *The Athlete fully endorses and relies on the inferences made in the Boekhorst Report; namely in explanation of the abnormalities in Sample 1 the Athlete referred to the decreased plasma volume, natural variation between the values in the different samples, even if such samples were taken within one day.*

VI. BURDEN AND STANDARD OF PROOF

76. Pursuant to Rule 3.1 of the ADR the following burdens and standards of proof are established:

3.1 Burdens and Standards of Proof

World Athletics or other Anti-Doping Organisation shall have the burden of establishing that an Anti-Doping Rule Violation has been committed. The standard of proof shall be whether World Athletics has established the commission of the alleged Anti-Doping Rule Violation to the comfortable satisfaction of the hearing panel, bearing in mind the seriousness of the allegation that is made. This standard of proof in all cases is greater than a mere balance of probability but less than proof beyond a reasonable doubt. Where these Anti-Doping Rules places the burden of proof upon the Athlete or other Person alleged to have committed an Anti-Doping Rule Violation to rebut a presumption or establish specified facts or circumstances, the standard of proof shall be by a balance of probability.

77. During the Hearing both Parties confirmed their understanding that the standard of proof applicable for the determination whether the AIU established the commission of the alleged ADRV or not is comfortable satisfaction.

VII. LEGAL FRAMEWORK & ANALYSIS

1. Non-admissibility of the Gene Test Results and the Ferritin Test Results

78. In its Directions of 15 November 2021, the Panel indicated that the grounds for the non-admissibility of the Gene Test Results and the Ferritin Test Results would be set forth in the Panel's Decision.
79. Primarily, the Panel in this respect observes that pursuant to the Initial Directions, the Updated Directions and the Directions of 28 July 2021, the Athlete was given several opportunities and several deadlines for the submission of her position together with all the relevant evidence. However, none of the deadlines were respected by the Athlete.
80. The latest deadline granted to the Athlete for the submission of arguments and evidence was 6 August 2021; the Athlete was particularly invited to provide the comprehensive details, explanations and evidence regarding the genetic testing. Nevertheless, the Gene Test Results were submitted by Ms. Marieke Van de Veen, the representative of the Athlete, only on 17 August 2021 and without further explanation as to why such evidence was produced only then.
81. Pursuant to the Gene Test Results, the relevant sample was collected only on 11 August 2021 at 10:50 am; hence, even the collection of the evidence which was supposed to be vitally essential for the Athlete in these proceedings commenced after the expiry of the final deadline.
82. The Panel appreciates that the logistics and technical issues apparently faced by the Athlete caused significant complication in collection of the relevant evidence. However, the current proceedings commenced on 22 February 2021 with the issuance of the Notice of Charge; therefore the Athlete had nearly half a year to endeavour for the collection of the medical documentation essential for her case.

83. On 5 November 2021, the new *pro bono* counsel of the Athlete submitted the Ferritin Test Results and requested the Panel take them into consideration.
84. In this respect, the Panel once again noted that the Ferritin Test Results could have been submitted by the Athlete long before the expiry of the final deadline granted to her in these proceedings. According to the dates on the Ferritin Test Results, they should have already been available to the Athlete in May and November 2020 accordingly.
85. Furthermore, the Panel has noted that certain data set on the Ferritin Test Results are inconsistent with the facts of the case; thus, the Ferritin Test Results, although bearing the name of the Athlete, refer to a 'Male' of '24 years'. Even if the reference to 'Male' could be considered as the result of a technical error, the age mentioned does not correspond to the age of the Athlete, as according to her statement made during the Hearing she was born on 20 January 1997, which means that on the dates of her testing she was 23 years old. Consequently, even if the Ferritin Test Results were submitted within the procedural deadlines, the Panel has doubts as regards the reliability of the information contained therein.
86. In the view of the foregoing, in particular the absence of exceptional circumstances to justify the late production of such evidence, the Panel finds that the Gene Test Results and the Ferritin Results are not admitted on the record.

2. Has the AIU discharged its burden of proof in respect of the establishment of the violation of Rule 2.2 of the ADR?

87. Rule 2.2 of the ADR reads as follows:

Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method

2.2.1 It is each Athlete's personal duty to ensure that no Prohibited Substance enters their body and that no Prohibited Method is Used. 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.

2.2.2 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.

88. According to the AIU, the Panel can be comfortably satisfied that the Athlete has committed the ADRV based on a) her ABP profile and b) the position of the Expert Panel set out in the First Expert Opinion and the Second Expert Opinion.

89. Pursuant to Rule 8.34 of the Regulations, a unanimous opinion among the three experts is necessary in order to proceed further towards declaring an APF, which means that all three experts come to the conclusion that considering the available information contained within the passport at this stage, it is likely that a prohibited substance or prohibited method had been used, and highly unlikely that the biological profile is the result of any other cause. The conclusion of the experts must be reached with the three experts assessing the athlete's passport with the same data.

90. In the First Expert Opinion, the members of the Expert Panel unanimously agreed that, considering the information available and the absence of an appropriate physiological explanation, the likelihood of the abnormalities observed in the Athlete's ABP being due to blood manipulation was very high.

91. Pursuant to Rule 8.47 of the Regulations, upon receipt of any explanation and supporting information from the Athlete which should be received within the specified

deadline, the Athlete Passport Management Unit shall forward it to the Expert Panel for review with any additional information that the Expert Panel considers necessary to render its opinion. The Expert Panel shall reassess or reassert the case and reach one of the following conclusions *a)* unanimous opinion of the experts that based on the information in the passport, it is likely that the athlete used a Prohibited Substance or Prohibited Method, and that it is highly unlikely to find the passport abnormal assuming any other cause; or *b)* based on the available information, the experts are unable to reach the unanimous opinion set forth above and, in such a case, the Expert Panel may or may not recommend further investigation or testing.

92. In the Second Expert Opinion, the Expert Panel established that the likelihood of the abnormalities observed in the Athlete's ABP being due to blood manipulation was high. On the contrary, according to the Second Expert Opinion, the likelihood of a physiological or medical condition causing the described result was very low.
93. The Panel observes that at no time has the Athlete raised any objections with respect to the procedures of the results management applied in the case at hand.
94. In the Second Expert Report the following inference is made by the Expert Panel with respect to the abnormalities of the Athlete's ABP:

(...) the blood results from Sample 1 are compatible with a situation, where the organism decreases erythropoiesis due to a supra-physiological hemoglobin mass. This can either be achieved through EPO or blood transfusions. In a conventional EPO administration regimen, EPO administration is ceased days to weeks before a competition to circumvent the detection of EPO through direct detection methods. Therefore, the ON/stimulation phase, representing elevated %ret values is present weeks before competitions and would therefore not, as Dr. Boekhorst argues, be present at the competition (in Sample 1). Hence the observed elevated Hb and low %ret is fully compatible with a normal blood 5 doping scenario (Schumacher et al. 2012).

95. During the Hearing it was maintained by the AIU and supported by Prof. d'Onofrio and Dr. Schumacher that the main abnormality in the case at hand lies in Sample 1, where the extremely high level of HGB compared to the minimal level of RET% demonstrates the most typical picture of a person (athlete) who has completed the full course of EPO and stopped the intake of the drugs a few days before the sporting event, *i.e.* typically 10 to 14 days. The AIU referred to the explanations of the Boekhorst Report as being highly speculative, providing for no sound explanation of a credible non-doping scenario.
96. At the Hearing the Athlete stated that the case was straightforward in terms of the failure of the AIU to discharge its burden of proof and establish the ADRV; the Athlete contested the doping scenario and primarily based her position on the absence of sufficient data to make any plausible inferences with respect to her normal range of HGB and RET%; according to the Athlete, the number of samples analysed was too small in order to draw any definitive conclusions.
97. On the account of above and as a preliminary observation, the Panel accepts that the ABP is a reliable and accepted means of evidence to assist in establishing an anti-doping rule violation and feels comforted in this conclusion with reference to the well-established CAS jurisprudence². In the absence of any evidence on the record to the contrary, the Panel concludes that it is very unlikely that the values recorded in the Athlete's ABP are incorrect. Indeed, the Panel finds that, even if samples 5, 6 and 7 were deleted from the Athlete's ABP, samples 3 and 8 form an indication of the Athlete's baseline HGB and RET% values against which the "abnormal" values of Sample 1 are to be measured.
98. The ABP Operating Guidelines do not determine that an ABP must consist of a minimum number of samples before an athlete can be charged with an ADRV. Also

² Cf. e.g. par. 86 CAS 2018/O/5288; par. 137 CAS 2016/O/4469.

Dr. Schumacher explained that, from a statistical point of view, after two samples 80% of the uncertainty is taken away.

99. The Panel, therefore, accepts the explanations of Prof. d'Onofrio and Dr. Schumacher produced during the Hearing that, the number of samples in the Athlete's ABP was sufficient for the issuance of an opinion regarding the APF.

100. In the view of the foregoing, the Panel rejects the argument of the Athlete that the information resulting from the ABP of the Athlete is insufficient for the establishment of the ADRV.

101. In the Boekhorst Report and during the Hearing the Parties discussed several possible explanations pertaining to the abnormalities observed in the Athlete's ABP to which the Panel has paid particular attention.

a) Plasma volume

102. In the Boekhorst Report, it was alleged that the increased HGB level could be caused by a decreased plasma volume, caused by dehydration and/or training at high altitude. During the Hearing, however, Dr. Te Boekhorst contemplated that the decreased plasma volume could only be one of the factors explaining the elevated level of HGB in Sample 1.

103. With respect to the allegation of dehydration, in the Second Expert Opinion, it was stated that "*a recent study showed an increase in Hb of 4.1% after a dehydration protocol*", nevertheless, "*it has been well-established in the scientific literature that such potential fluid losses are not only reversed but overcompensated within the first 1-2 hours after exercise, which will result in a reduction in Hb*".

104. According to the Boekhorst Report, the normal HGB level of the Athlete may have been around 15.2 g/dL, and with certain reservations, was admitted by Dr. Schumacher and Prof. d'Onofrio during the Hearing.
105. However, adding the possible 4% to the HGB level of 15.2 g/dL brings to the figure of 15.8 g/dL, which is far below the value of 19.3 g/dL as per Sample 1. Rather, according to the Second Expert Opinion, an increase in HGB concentration from 15.2 g/dl to 19.3g/dl would require a decrease in plasma volume of 39% considering a stable HGB mass, which decrease would be highly unlikely and is not supported by any evidence.
106. Furthermore, on the basis of the ABP Documentation Package for Sample 1, it appears that it was collected at 07:10am on 30 November 2019, and that there was no training or competition within two hours before the Sample collection. Moreover, no intensive exercise could have been expected to be performed by the Athlete a day before the important race, which took place on 1 December 2019 in Valencia.
107. Therefore, the Panel accepts the position of the AIU that dehydration could not be an explanation of the elevated HGB level and reduced RET% level in Sample 1.
108. According to Dr. Schumacher, the fact that there was a significant drop of altitude between the Athlete's usual place of residence and the sea level in Valencia, could potentially result in a reduction of her HGB level, but not an increase. Such theory therefore leaves the high HGB level in Sample 1 unexplained.
109. Based on the evidence on the record and in the view of the explanations produced by all three experts during the Hearing, the Panel concludes that as stand-alone factors, dehydration and/or the changing of altitude cannot serve as a sound explanation with respect to the extremely high level of HGB and reduced level of RET% in Sample 1.

b) Technical Errors

110. In the Boekhorst Report, it is suggested that the high level of HGB could be a result of the laboratory errors, namely the inadequate mixing of the samples and the fact that the time elapsed between the collection of the sample and its analysis was too long. Thus, Dr. Te Boekhorst opined that the low platelet levels could evidence the inadequate mixing of the samples.
111. Prof. d'Onofrio, however, during the Hearing maintained that the sample collection procedure, analysis and temperature measurements were carried out perfectly in line with the International Standard for Laboratories and the relevant Technical Documents introduced by WADA. Furthermore, it is indicated in the Second Expert Report that Sample 1 was tested twice, at 13.00 and 13.11, but that the HGB level was identical (HGB 19.3 g/dL) and that the RET% was very similar (0.71/0.77), which would have been "*impossible if the two samples were not perfectly mixed*".
112. In the Second Expert Opinion, it was also stated that the platelet count in Sample 1 was "*only slightly lower than in the following samples, well within the limits of the physiological variability*". During the Hearing, however, Dr. Schumacher added that on a speculative basis the lower platelet count in Sample 1 would be consistent with the suppressed RET% in Sample 1 as ceasing EPO administration some days before has the same effect on RET% as on platelets.
113. On the account of above, the Panel refers to Rule 4.54 of the Regulations, whereby it is established that WADA-accredited Laboratories and WADA-Approved Laboratories for the ABP shall be presumed to have conducted the sample analysis and custodial procedures of Athlete Biological Passport samples in accordance with the International Standard for Laboratories and Technical Documents. The Athlete or other Person may rebut this presumption by establishing that a departure from the International Standard

for Laboratories and/or Technical Documents occurred, which could reasonably have significantly modified the result. In such cases, WA, Member or other prosecuting authority shall have the burden to establish why such a departure does not invalidate the result.

114. In the case at hand, however, the Athlete has not submitted any evidence with respect to the possible departures from the applicable International Standards. Therefore, based on the evidence on the record and in the view of the explanations produced by all three experts during the Hearing, the Panel concludes that no technical errors in laboratory analysis of the samples were proven by the Athlete.

c) Other pathologies

115. Following a question from the Panel, Prof. d'Onofrio contemplated that, in theory, the abnormally high level of HGB in Sample 1 could be explained by certain congenital pathologies (which are extremely rare however, and met in less than one case per million); nevertheless in case of such pathology the HGB level would be stable and the RET% level would not be suppressed. Another possible explanation could be the neoplastic condition; however, such pathology is usually found in older persons, keeps aggravating with time and is incompatible with the Athlete's elite career.

116. Hence, the Panel finds it is highly unlikely that there would be any other physiological condition explaining the extremely high level of HGB and low level of RET% in Sample 1 and that the reference to such pathologies is merely hypothetical and speculative.

d) As to the fluctuations in HGB level of the Athlete and in the RET% counts

117. According to Dr. Schumacher, the level of HGB in Sample 1 would have been considered as excessively high even for a male athlete. For a female athlete, it could be

considered as being highly dangerous for her overall health condition. This was not contested by Dr. Te Boekhorst, who agreed that the HGB value in question was alerting and would have required immediate medical intervention.

118. Pursuant to the conclusions of Dr. Schumacher and Prof. d'Onofrio, samples 5 -7 add to the understanding of the natural level of HGB of the Athlete, as those samples were taken after the declared phlebotomies and because, according to the AIU's Experts, phlebotomies generally suppress HGB with about 1-2 points, which would have made the Athlete's HGB level in these samples consistent with her likely baseline HGB levels detected in samples 3 and 8.

119. With respect to the RET% level in Sample 1 the Parties have divergent positions. Dr. Te Boekhorst asserted that the level of RET% 0.71 in Sample 1 was low, however, within the limits of normality; moreover, during the Hearing Dr. Te Boekhorst alleged that, from the moment the EPO intake was stopped (which side effects include thrombosis), the RET% level should be close to 0, whereas in the case at hand it was relatively high for a doping scenario.

120. According to Dr. Schumacher the normal RET% level of the Athlete should be around 1.5 – 2. Bearing in mind that the dosage of EPO, the timing and duration of its intake were not known, it was possible that a few days elapsed between the moment the Athlete stopped taking EPO and the collection of Sample 1. In other words, according to Dr. Schumacher, right after the end of the EPO consumption, the RET% level of the Athlete could have been indeed close to 0 as suggested by Dr. Te Boekhorst, but that they may have increased somewhat over time.

121. On the account of above, the Panel has taken into consideration that all the experts at the Hearing consented that (i) the level of HGB 19.3 g/dL as in Sample 1 was extremely high and dangerous for the health for the Athlete, (ii) the normal level of the Athlete's HGB was probably around 15 g/dL, (iii) the RET% level in Sample 1 was low and could

serve as an indicator of the recent administration of erythropoiesis-stimulating agents, artificially suppressing the production of new red blood cells by the bone marrow until HGB would have decreased to the Athlete's natural baseline level.

122. The Panel concludes from the above that the HGB and RET% values from Sample 1 are highly abnormal and are not explained by any physiological or medical explanation invoked by the Athlete.

123. The Panel now turns to the assessment of whether the abnormal values in the Athlete's ABP are consistent with blood manipulation, as argued by the AIU.

e) High Ferritin level

124. In the First Expert Report, the Expert Panel concludes that *"the most likely scenario involves the artificial increase of red cell mass using an erythropoietic stimulant combined with intravenous iron leading to the OFF-pattern seen in sample 1 and subsequent measures (blood letting) to correct the associated abnormality in the blood picture (high Ferritin), as seen in samples 5 and 7"*.

125. The Athlete disputes to have administered iron. Among the explanations proposed in the Boekhorst Report is the reference to high ferritin level, which is not directly related to HGB level, but possibly caused by a somatic disorder such as ██████████ diagnosed for the Athlete. As already indicated in the First Expert Opinion, in Sample 3 *"Ferritin (an indicator of the iron storage of the body) was measured and found very high, i.e. above 1500ng/ml, the upper reporting limit of the laboratory (the normal range of Ferritin in Females usually ranges between 10-300ng/ml). The athlete was thus contacted by the passport custodian to highlight this issue, as iron overload can cause serious health issues"*.

126. In response, in the Second Expert Opinion, it was pointed out that "*while this is, in theory, correct, such elevated ferritin values in a young, otherwise healthy individual are highly likely not caused by a [REDACTED]. Elevated ferritin values in [REDACTED] are mostly seen in multimorbid, elderly patients and rarely reach the ferritin levels seen in the present case*".
127. During the Hearing Dr. Schumacher stated, and it was not contested by Dr. Te Boekhorst, that in principle the iron level *per se* is not related to HGB and supplementation of iron in any event may not increase the level of HGB above the natural limits.
128. Following a specific question from the Panel, Dr. Schumacher confirmed that a high level of ferritin can serve as an indicator of EPO administration as iron is often administered in combination with EPO to maximise the effect of an Erythropoietic Stimulating Agent (ESA) therapy; thus, there is a high likelihood of blood manipulation since the increased level of ferritin is aimed to support the production of blood cells.
129. As held in CAS jurisprudence, "*[the] use of an additional substance to enhance the effects of a Prohibited Substance demonstrates a considerable degree of forethought, and as such Ms. Kokkinariou's use of ferretin forms an additional element of planning to an already methodical and drawn-out doping scheme*"³.
130. The Panel finds that, even if accepting that the high iron levels detected in Sample 2 were caused by a medical condition, it leaves unexplained why the Athlete's HGB level in Sample 1 was so high and the RET% so low. The Panel therefore concludes that the high ferritin levels do not provide evidence of a physiological or medical condition that explains the abnormal blood values of Sample 1.

³ Cf. par. 126 of CAS 2012/A/2773.

131. In view of the very limited evidence produced by the Athlete with respect to any underlying medical reason that would explain the very high levels of ferritin detected in her samples, and given the maximising effects of high iron levels on ESA therapy, the Panel considers the highly abnormal HGB and RET% values in Sample 1, in combination with the high iron levels in subsequent samples, consistent with the doping scenario invoked by the AIU.

f) Overall qualitative analysis

132. The Panel has taken into account the inference made by the Sole Arbitrator in par. 89 of the award in case *CAS 2018/O/5822 IAAF v. RUSAF & Mariya Ponomareva* referred to by the counsel of the Athlete during the Hearing; in particular, the Panel accepts that the mere fact that an athlete cannot provide a credible explanation for the deviations in his or her ABP cannot automatically lead to the conclusion that an ADRV has been committed. The deviations in the ABP are to be interpreted by experts called to consider the 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.

133. In the case at hand, the Panel has taken into thorough consideration the Athlete's explanations of 8 January 2021 as well as those possible reasons for the abnormalities observed in her ABP developed by Dr. Te Boekhorst in his report and during the Hearing.

134. Nonetheless, the Panel finds that during the Hearing the Athlete did not submit any new explanations for the abnormalities in her ABP profile.

135. The Panel agrees with the Athlete that certain factors may in theory have contributed to the high value of HGB in Sample 1. However, none of these factors was appropriately evidenced and documented by the Athlete and are unlikely to have caused the abnormal values detected in Sample 1. The Panel is sympathetic to the Athlete's situation, her economic condition and the hardship faced in terms of arrangement of the medical testing. Nevertheless, the Panel cannot disregard the fact that it was confirmed by all the experts present at the Hearing that the value of HGB in Sample 1 was so high that in a normal environment it would have been considered as a situation of emergency where immediate medical intervention would have been required.
136. The coincidence of such high level of HGB being present in Sample 1, increasing the Vo2 max capacity on the day before an important competition, is exactly what an athlete subjecting himself or herself to an ESA therapy would be aiming to achieve.
137. The Panel considers that this element, together with the very high ferritin levels, are elements separate from the blood values detected in Sample 1 that provide support for the AIU's allegation of a doping scenario and comfort the Panel in concluding that the Athlete artificially and illegally manipulated her blood values to achieve sporting benefits.
138. The Panel deeply appreciated the input from Dr. Te Boekhorst and his endeavours to propose explanations as regards the abnormalities observed in the ABP of the Athlete. Nevertheless, the Panel is of the opinion that the possible reasons brought forward by the Athlete and Dr. Te Boekhorst could only explain the abnormalities provided that a number of extraordinary factors came together, which is not the case here. At least the contrary has not been evidenced.
139. In the view of the foregoing, the Panel is convinced that, in the given circumstances, the abnormalities observed in the ABP of the Athlete fall within the scope of a doping scenario; the Panel, thus, finds that the AIU succeeded in establishing, to the Panel's

comfortable satisfaction, that the abnormal values of the ABP were caused by the use of a Prohibited Substance or a Prohibited Method by the Athlete.

140. Consequently, the Panel finds that the Athlete committed the violation of Rule 2.2 of the ADR.

VIII. APPLICABLE CONSEQUENCES

1. *Period of Ineligibility*

141. Rule 10.2 of the ADR reads as follows:

10.2 Ineligibility for Presence, Use or Attempted Use, or Possession of a Prohibited Substance or Prohibited Method

The period of Ineligibility imposed for an Anti-Doping Rule Violation under Rule 2.1, 2.2 or 2.6 that is the Athlete or other Person's first anti-doping offence shall be as follows, subject to potential reduction or suspension pursuant to Rule 10.4, 10.5 or 10.6:

10.2.1 The period of Ineligibility shall be four years where:

- a. The Anti-Doping Rule Violation does not involve a Specified Substance, unless the Athlete or other Person establishes that the Anti-Doping Rule Violation was not intentional.*
- b. The Anti-Doping Rule Violation involves a Specified Substance and the Integrity Unit establishes that the Anti-Doping Rule Violation was intentional.*

10.2.2 If Rule 10.2.1 does not apply, the period of Ineligibility shall be two years.

10.2.3 As used in Rules 10.2 and 10.3, the term "intentional" is meant to identify those Athletes or other Persons who cheat. The term, therefore, requires that the Athlete or other Person engaged in conduct that they knew constituted an Anti-Doping Rule Violation or knew that there was a significant risk that the conduct might constitute or result in an Anti-Doping Rule Violation and manifestly disregarded that risk. An Anti-Doping Rule Violation resulting from an Adverse Analytical Finding for a substance that is only prohibited In-Competition (a) shall be rebuttably presumed to be not "intentional" if the substance is a Specified Substance and the Athlete can establish that it was Used Out-of-Competition; and (b) shall not be considered "intentional" if the Substance is not a Specified Substance and the Athlete can establish that it was Used Out-of-Competition in a context unrelated to sport performance.

142. For the reasons set out above, the Panel has reached the conclusion that the AIU has proven the charge to the comfortable satisfaction and the ADRV is established.

143. As confirmed by the Expert Panel during the hearing, the use of blood doping and in particular the administration of EPO, is carried out through injections, and therefore, is by definition intentional. In case of an ABP anti-doping rule violation there can be hardly any circumstances under which an athlete is able to establish that the violation was committed unintentionally, and therefore no deviation from the 4 year period of ineligibility will in principle be possible⁴.

144. The Athlete has not submitted any argumentation with respect to the possible reduction or elimination of the ineligibility period.

145. Therefore, the Panel concludes that a four-year period of Ineligibility is to be imposed on the Athlete.

⁴ Cf. e.g. par. 158 CAS 2018/O/5822; par. 88 CAS 2016/O/4469.

146. Pursuant to Rule 10.10.2 of the ADR the Provisional Suspension imposed on the Athlete from 22 February 2021 until the date of this Decision shall be credited against the total period of Ineligibility.

2. Disqualification of results

147. Rule 10.8 of the ADR reads as follows:

10.8 Disqualification of Results in Competitions Subsequent to Sample Collection or Commission of an Anti-Doping Rule Violation

In addition to the automatic Disqualification, pursuant to Rule 9, of the results in the Competition that produced the Adverse Analytical Finding (if any), all other competitive results of the Athlete obtained from the date the Sample in question was collected (whether In-Competition or Out-of-Competition) or other Anti-Doping Rule Violation occurred through to the start of any Provisional Suspension or Ineligibility period shall be Disqualified (with all of the resulting consequences, including forfeiture of any medals, titles, ranking points and prize and appearance money), unless the Disciplinary Tribunal determines that fairness requires otherwise.

148. Sample 1 collected on 30 November 2019 is found to be highly abnormal on the basis of which the ADRV was established.

149. The AIU requested that the Panel orders the disqualification of any results obtained by the Athlete between 30 November 2019 and 22 February 2021 with all resulting consequences including the forfeiture of any titles, awards, medals, points and prize and appearance of money pursuant to Rule 10.8.

150. The Athlete did not submit any argumentation in respect of the disqualification of her results.

151. Based on the foregoing and in the view of establishment of the ADRV committed by the Athlete, the Panel finds it appropriate that all the Athlete's results since 30 November 2019 shall be disqualified.

152. The Panel determines that the AIU has absolute discretion to establish an instalment plan for repayment of prize money forfeited pursuant to the above. The tribunal is content to leave to the AIU the establishment of such instalment plan.

IX. COSTS

153. The Panel noted the AIU request to award WA a contribution to its legal costs and expenses incurred in relation to this matter.

154. Based on the findings of the Panel developed above, the Athlete is the unsuccessful party.

155. Nevertheless, the Panel inclines to reject the request of the AIU regarding the contribution to the WA's legal costs and expenses incurred in relation to this matter taking into account that the period of Ineligibility of four years and the forfeiture of any titles, awards, medals, points and prize and appearance of money already represents a considerable financial burden on the Athlete.

156. In the view of the foregoing, the Panel determines that each party shall bear its respective costs.

X. CONCLUSIONS

157. Based on the afore-mentioned considerations, the Tribunal rules as follows:

- (i) The Tribunal has jurisdiction to decide on the subject matter of this dispute.
- (ii) The Athlete committed an Anti-Doping Rule Violation as per Rule 2.2 of the ADR;
- (iii) A period of Ineligibility of four years is imposed on the Athlete commencing on the date of the Tribunal Decision;
- (iv) The period of Provisional Suspension imposed on the Athlete from 22 February 2021 until the date of the Tribunal Decision shall be credited against the total period of Ineligibility, provided that it has been effectively served by the Athlete;
- (v) All the Athlete's results from 30 November 2019 until the date of her Provisional Suspension on 22 February 2021 shall be disqualified with all resulting consequences including the forfeiture of any titles, awards, medals, points and prize and appearance money;
- (vi) Each party shall bear its own costs.

XI. RIGHT OF APPEAL

158. This Decision may be appealed to the Court of Arbitration for Sport ("CAS"), located at Château de Béthusy, Avenue de Beaumont 2, CH-1012 Lausanne, Switzerland (procedures@tas-cas.org), in accordance with Rule 13 subsection 13.6.1 ADR edition in force from 1 January 2021.

159. In accordance with Rule 13.6 ADR edition in force from 1 January 2021, the Parties shall have 30 days from receipt of this Decision to lodge an appeal with the CAS.



Anna Smirnova

Chair, on behalf of the Panel

London

6 December 2021

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