TAS / CAS
TRIBUNAL ARBITRAL DU SPORT
COURT OF ARBITRATION FOR SPORT
TRIBUNAL ARBITRAL DEL DEPORTE

CAS 2024/A/10704 Rhonex Kipruto v. World Athletics

ARBITRAL AWARD

rendered by the

COURT OF ARBITRATION FOR SPORT

sitting in the following composition:

President of the Panel: Mr James Drake KC, Barrister, London, United Kingdom
Arbitrators: Mr André Brantjes, Attorney-at-Law, Amsterdam, Netherlands
Prof. Luigi Fumagalli, Professor and Attorney-at-Law, Milan, Italy

in the arbitration between

Rhonex Kipruto, Kenya

Represented by Mr Jan Krabec, Attorney-at-Law with spectre.law in Prague, Czech Republic

– Appellant –

World Athletics, Monaco

Represented by Mr Nicolas Zbinden and Mr Adam Taylor, Attorneys-at-Law with Kellerhals Carrard in Lausanne, Switzerland

– Respondent –

I. THE PARTIES

1. The Appellant is Rhonex Kipruto (the "Athlete" or the "Appellant"), a long-distance runner from Kenya. He was born in 1999 at Metkei, Kimamet Village, in Kenya. He has enjoyed marked success as a runner, including the bronze medal at the 2019 World Championships and an eighth finish at the 2021 Tokyo Olympic Games.

2. The Athlete's father is Gilbert Kiptoo Kiptanui ("Mr Kiptanui"), who was born on 1 January 1977, and resides in Eldoret, Kenya.

3. World Athletics ("World Athletics" or the "Respondent") is the international governing body for the sport of athletics, recognised as such by the International Olympic Committee. It has its seat and headquarters in Monaco. It is a signatory to the World Anti-Doping Code ("WADC") and in compliance therewith has from time to time adopted the World Athletics Anti-Doping Rules, the relevant edition coming into force on 31 March 2023 (the "2023 ADR"). World Athletics is represented in these proceedings by the Athletics Integrity Unit (the "AIU"), which has delegated authority for results management on behalf of World Athletics pursuant to Rule 1.2 of the 2023 ADR.

4. In this Award, the parties shall be referred to collectively as the "Parties".

II. OUTLINE OF THE APPEAL

5. This is an appeal by the Athlete to the Court of Arbitration for Sport ("CAS") pursuant to the Code of Sports-related Arbitration (2023 edition) (the "CAS Code") against the decision of the World Athletics Disciplinary Tribunal dated 28 May 2024 by which the Disciplinary Tribunal decided, inter alia, that the Athlete had committed an ADRV pursuant to Rule 2.2 of the 2023 ADR and imposed a period of ineligibility of six years on the Athlete, together with the disqualification of results and forfeiture of prizes (as more fully described below) (the "Appealed Decision").

6. At the core of this appeal is the Athlete's haematological profile as set forth in his Athlete's Biological Passport (or "ABP") and this appeal arises in the context of the World Athletics Athlete Biological Passport Program (the "ABP Program").

III. FACTUAL BACKGROUND

7. Set out below is a summary of the relevant facts based on the Parties' written submissions, pleadings and evidence adduced in these proceedings and from matters of public knowledge. While the Panel has considered all matters put forward by the Parties, reference is made in this Award only to those matters necessary to explain the Panel's decision and reasoning.

A. The ABP Program

8. By way of introduction:

a. Erythropoiesis is the process by which red blood cells (sometimes referred to as "RBC") are produced in the human body by the development from erythropoietic stem cells into immature red blood cells known as reticulocytes that are produced in the bone marrow and released into the bloodstream, where they circulate for a short period before maturing into fully functional red blood cells known as erythrocytes. Erythrocytes are the primary cells responsible for transporting oxygen (and carbon dioxide) in the blood.

b. Erythropoietin (or EPO) is a hormone, specifically a glycoprotein, that plays a central role in erythropoiesis. EPO is produced mostly in the kidneys and is released when oxygen levels in the blood are low (called hypoxia) (caused, say, by high altitude, blood loss, or anaemia) and it stimulates the bone marrow to increase production of RBC. The EPO binds to the EPO receptor (the "EPOR") which is embedded in the cell membrane of erythroid progenitor cells (the precursor cells). This increased activity of RBC allows the blood to have a greater carrying capacity for oxygen (and also stimulates the healing of wounds).

c. Erythrocytosis signifies an abnormally high number of red blood cells (erythrocytes) in the bloodstream.

9. The World Anti-Doping Agency ("WADA") introduced the ABP in 2009. The following account of the ABP is gratefully drawn from CAS 2020/A/7510 at para 5ff; and Lewis, A. and Taylor, J., 2021. *Sport: Law and Practice.* London: Bloomsbury, at p827ff:

a. Three substances or methods are well known to be used for blood doping, namely: (i) administering recombinant human EPO by injection to trigger erythropoiesis; (ii) synthetic oxygen carriers (i.e. infusing blood substitutes such as a haemoglobin-based oxygen carrier or perfluorocarbons to increase haemoglobin ("HGB") well above normal levels); and (iii) blood transfusions (i.e. infusing a matching donor's or an athlete's own, previously extracted red blood cells to increase the HGB to an abnormal level).

b. In order to combat such blood doping, WADA developed and refined the concept of the ABP and formally introduced its blood testing program in 2009. The ABP consists of an electronic record that compiles and collates a given athlete's test results and other data over time. Each individual athlete has a unique ABP.

c. The haematological module of the ABP records values in an athlete's blood samples of parameters known to be sensitive to changes in red blood cell production. The values collected and recorded include concentration of HGB and a percentage of reticulocytes ("RET" and "RET%").

d. The ratio of the HGB and RET% values is used to calculate a further value, known as the "OFF-score" (which is calculated as follows: (HGB x10) – (60 x √RET)), which is sensitive to changes in erythropoiesis. The combination of

either a high HGB and low RET%, or of a low HGB and high RET%, produces a high OFF-score.

e. The longitudinal marker values from the collected blood samples are fed into a Bayesian statistical model, known as the 'Adaptive Model'. The Adaptive Model uses an algorithm that takes into account both variability of blood values reported in a large population and factors affecting the variability of individual factors (for example, sport, gender, age), the possibility of errors in measuring values, and potential confounding factors (e.g., altitude, training) in order to predict the upper and lower limits within which the athlete's future values would normally be expected to fall, assuming that the athlete is healthy and not blood doping.

f. The selected biological markers are monitored over a period of time, and a longitudinal profile is created that establishes upper and lower limits within which the athlete's values would be expected to be found, assuming normal physiology (i.e. that of a healthy and non-doping individual).

g. 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.

h. Each time a blood sample is collected and analysed, the Adaptive Model calculates where the reported HGB, RET% and OFF-score values fall within the athlete's expected distribution and sets a new range of expected results for the athlete.

i. As further values from further samples are collected from an athlete, the model calculates the likelihood that any of them falling outside the predicted range would be observed in a healthy, non-doping athlete. If that likelihood is less than 1/100 an "Atypical Passport Finding" ("APF") is reported.

j. Where the Adaptive Model "flags" a sample as abnormal, meaning falling outside an athlete's usual values, a process is triggered whereby the ABP is assessed in conformity to the International Standard for Testing and Investigations ("ISTI"), the WADA ABP Guidelines, and the WADA International Standard for Results Management ("ISRM") (see in particular Article C.1.3).

k. An initial review is conducted to check for possible explanations that could account for these irregularities, such as recent travel, illness, altitude exposure, or other known stress factors on the athlete's physiology.

l. If no clear, immediate explanation is found, the case is sent to an independent panel of experts. This panel usually includes haematologists, endocrinologists,

physiologists, and anti-doping scientists. Each panel member independently reviews the flagged data, considering the athlete's full profile, previous results, and any known personal or environmental factors that may affect biological markers.

m. The panel members use their expertise to assess whether the atypical values are likely due to natural variation or if they resemble patterns commonly associated with doping. They may also consider contextual information, such as the timing of competitions, training periods, and any medical information provided by the athlete that could explain the atypicality.

n. The experts then discuss their findings together to reach a consensus on the profile. They may recommend further investigation or testing, especially if they believe the irregularities might have an innocent explanation. If the experts agree that the abnormalities are highly suspicious and consistent with doping, they report their conclusions to the relevant anti-doping organisation. If the panel finds a plausible explanation, the case may be closed with no further action. If the panel suspects possible doping but lacks definitive evidence, they may recommend targeted testing of the athlete to monitor for future abnormalities. If doping is strongly suspected, the case is escalated for potential disciplinary action.

10. In general terms, the ABP is based on a longitudinal monitoring of athletes and provides "*a means of detecting blood doping indirectly by monitoring changes over time in parameters in the athlete's blood that would ordinarily be expected to remain relatively stable, but that would deviate from the norm in predictable ways in the event of blood doping (eg use of rEPO will change the levels of hematocrit, haemoglobin, and reticulocyte cells in the blood in predictable ways). The basis of the ABP is that in appropriate circumstances the proper inferences to draw from changes in the parameters over time is that the athlete has Used a Prohibited Substance or Prohibited Method.*": see Lewis, A. and Taylor, J., 2021. *Sport: Law and Practice.* London: Bloomsbury, 4th edn, at p827.

11. The nature and extent of the ABP, and the ABP Adaptive Model, have been explored and explained in various CAS awards: see, e.g., CAS 2010/A/2235; CAS 2012/A/2773. The Panel respectfully agrees with and adopts what was said in CAS 2016/O/4464 as follows:

"*148. […] the Sole Arbitrator observes that the ABP has been generally accepted as a reliable and accepted means of evidence to assist in establishing anti-doping rule violations (see CAS 2010/A/2174, para. 9.8; VIRET M., Evidence in Anti-Doping at the Intersection of Science and Law, 2016, p. 735; LEWIS/TAYLOR (Eds.), Sport: Law and Practice, 2014, para. C.126).*

149. This is not to say that no criticism on the ABP is permitted or that the reliability of the evidence provided by the ABP in a specific case cannot be reproached, it is however at least indicative that the credibility of the ABP system as a whole is not to be mistrusted easily. The Sole Arbitrator hence finds that the ABP system is to be presumed

valid, unless convincing arguments are made that a specific element of the system does not operate satisfactorily.

150. The Sole Arbitrator is mindful of the warnings expressed in legal literature that a pitfall to be avoided is the fallacy that if the probability of observing values that assume a normal or pathological condition is low, then the probability of doping is automatically high (VIRET M., Evidence in Anti-Doping at the Intersection of Science and Law, 2016, p. 763, with further references to Dr. Schumacher and Prof. d'Onofrio 2012, p. 981; Sottas 2010, p. 121) and that it has been submitted in this context that "if the ADO is not able to produce a "doping scenario" with a minimum degree of credibility ("density"), the abnormality is simply unexplained, the burden of proof enters into play and the ADO's case must be dismissed since there is no evidence pleading in favour of the hypothesis of "doping" any more than for another cause" (VIRET M., Evidence in Anti-Doping at the Intersection of Science and Law, 2016, p. 774).

151. This view has indeed also been adopted in CAS jurisprudence and the Sole Arbitrator finds that another CAS panel summarised it nicely 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). Although such panel continued by emphasising that it is not necessary to establish a reason for blood manipulation, the panel noted the 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 inculpate 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).

152. The Sole Arbitrator agrees with these considerations and, as such, concludes 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 deduced that an anti-doping rule violation has been committed. Rather, the deviations in the ABP are to be interpreted by experts called to put into the balance various hypothesis that could explain the abnormality in the profile values, i.e. a distinction is made between a "quantitative" and a "qualitative" assessment of the evidence."

12. For its part, World Athletics established an Athlete Passport Management Unit (the "APMU") at the Laboratoire Suisse d'Analyse du Dopage, the director of which is Dr Tiia Kuuranne.

B. The Athlete's ABP

13. The Athlete is classified by World Athletics as an international-level athlete and is a member of the World Athletics ABP pool and, as such, participates in the ABP Program. The Athlete provided 32 blood samples between 9 July 2018 and 15 March 2022, 28 of

which were considered to be valid and included in the Athlete's haematological profile, as set forth in the table below:

No	Date	HGB (g/dL)	RET%	Off-score
1	09/07/2018	15.8	0.86	102.4
2	02/09/2018	17.8	0.78	125.01
3	13/10/2018	INVALID	--	--
4	21/11/2018	16.9	0.83	114.3
5	09/01/2019	16.7	0.94	108.8
6	13/02/2019	16.5	0.79	111.7
7	28/03/2019	15.4	1.26	86.7
8	26/05/2019	15.4	1.27	86.4
9	11/09/2019	15,3	1.36	83
10	02/10/2019	15.9	1.29	90.85
11	06/10/2019	14.8	1.33	78.8
12	20/11/2019	INVALID	--	--
13	18/01/2020	16.8	0.97	108.91
14	16/03/2020	INVALID	--	--
15	27/05/2020	17.7	1.00	117
16	04/06/2020	17.8	0.92	120.5
17	12/07/2020	15.7	0.91	99.8
18	31/08/2020	15.1	1.95	67.2
19	17/11/2020	15.8	1.05	96.5
20	03/12/2020	17.1	1.42	99.5
21	14/12/2020	17.3	1.68	95.2
22	20/02/2021	17.9	1.68	101.2
23	27/04/2021	16	1.67	82.5
24	05/06/2021	16.1	1.65	83.9
25	16/06/2021	17.6	2.14	88.2
26	17/08/2021	14.9	1.72	70.3
27	02/09/2021	16	1.7	81.8
28	10/09/2021	INVALID	--	--
29	22/10/2021	16.6	1.52	92.03
30	13/11/2021	16.8	1.49	94.8
31	21/02/2022	15.5	2.32	63.6
32	15/03/2022	15.5	1.87	76

14. Each sample was sent to and analysed by a WADA-accredited laboratory and the resultant laboratory documentation packages for each analysis were sent by the APMU to each of Prof. Giuseppe d'Onofrio, Dr Laura Garvican-Lewis and Dr Jakob Mørkeberg with a request to review the Athlete's (anonymous) blood profile and to provide an independent initial review. Each of them did so on an individual basis, and

each concluded that doping was likely the explanation for the abnormalities detected in the Athlete's ABP profile.

15. In turn, the APMU prepared an "ABP Documentation Package" (of 47 pages) dated 21 April 2022. In this document, the Athlete's ABP profile was described as below and the APMU concluded that doping was likely the explanation for the abnormalities detected in the Athlete's ABP profile.

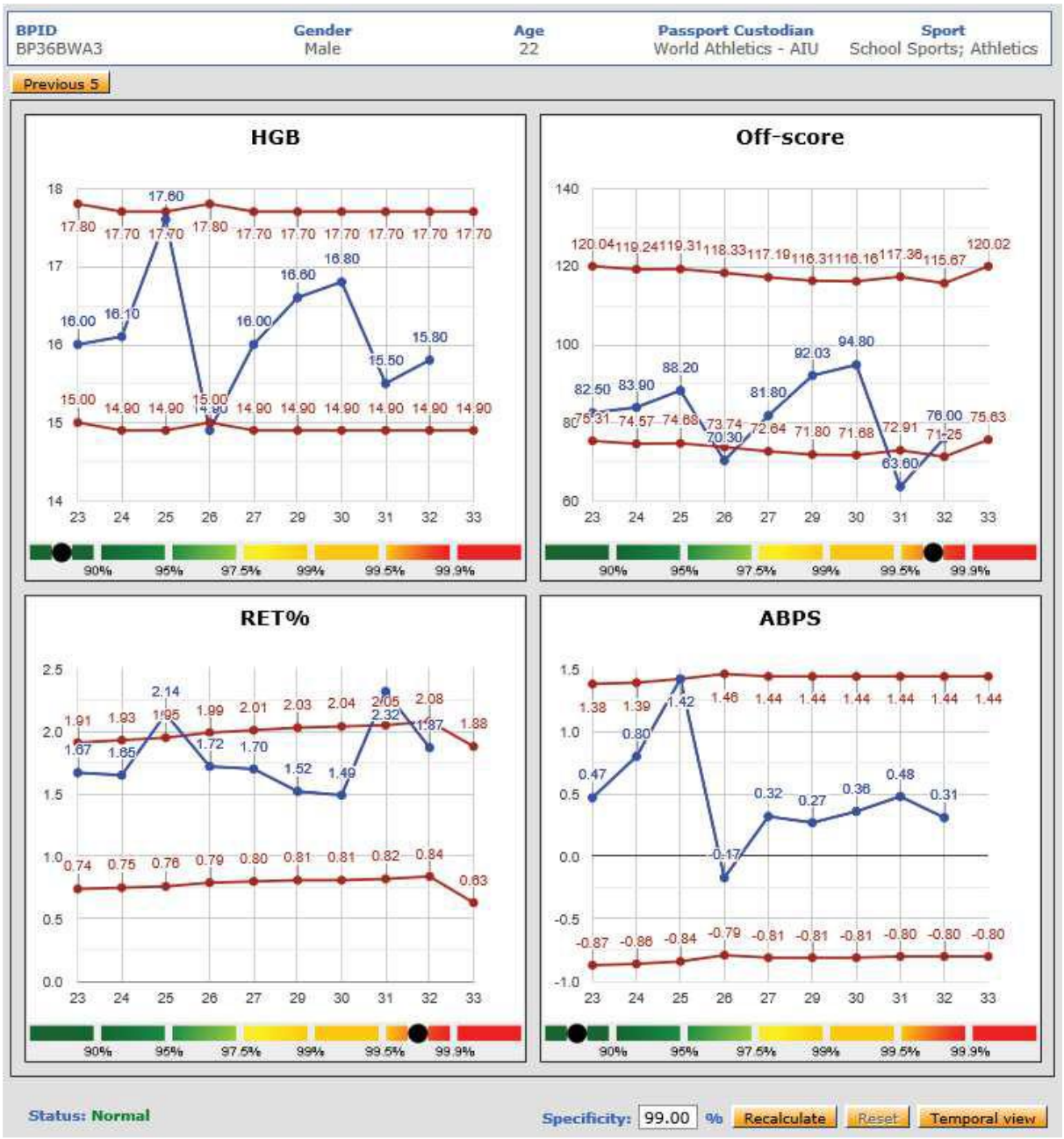
"***3 ABP Profile***

The profile is constituted by thirty-two (32) samples. Samples #3, #12, #14 and #28 are evaluated as invalid and not included in the profile evaluation.

3.1 ADAMS Profiles based on 20.04.2022

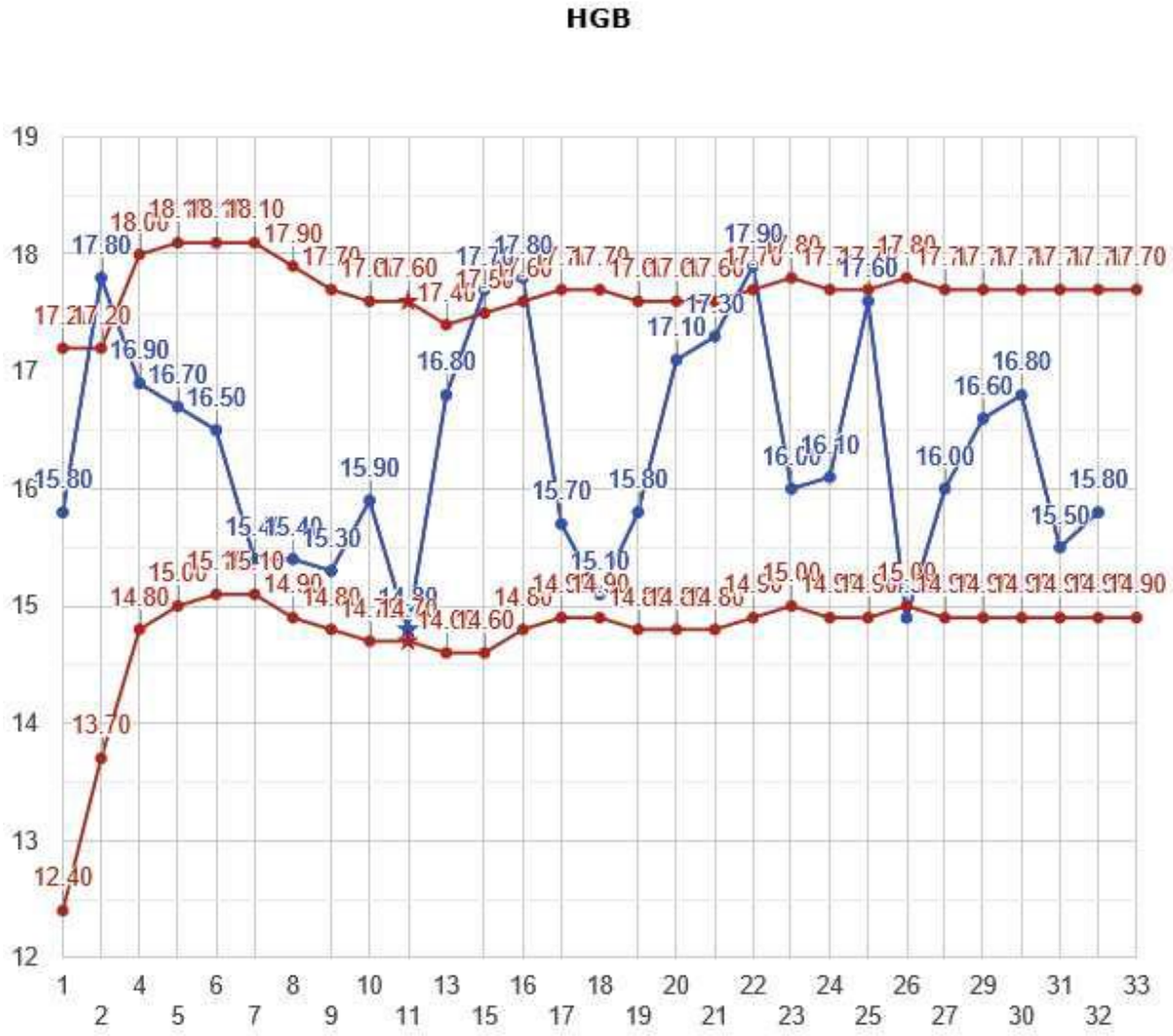
For all of the profiles given in here, the blue line represents the results from different samples whereas the red lines represent the individual limits, as calculated by the adaptive model with a specificity given in the "ADAMS profile for all parameters" (see 3.1.1).

3.1.1 ADAMS profile for all parameters with sequence evaluation

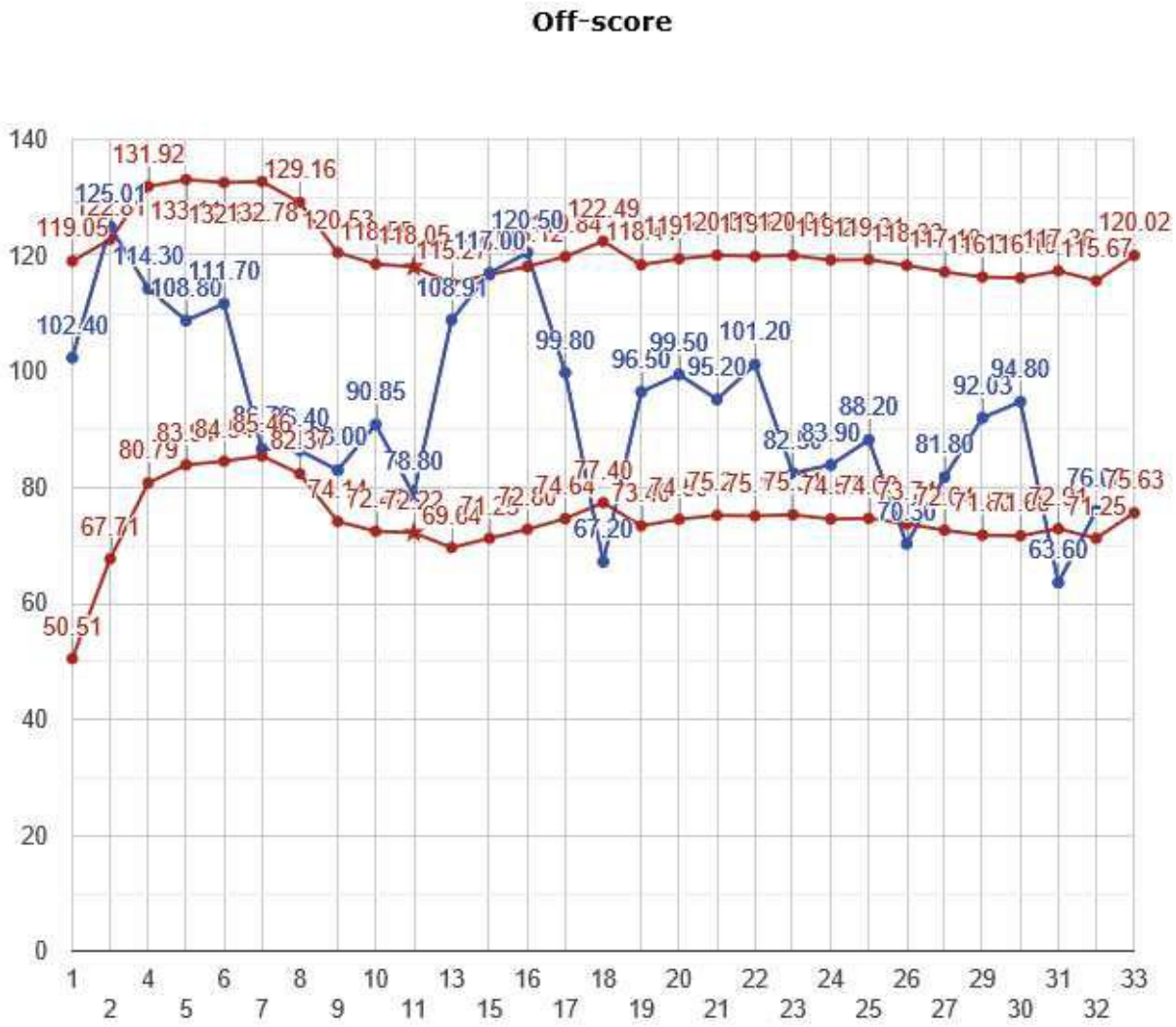


The "sequence abnormality likelihood" is provided under each parameter plot as a black dot. The likelihood is calculated according to applicable rules.

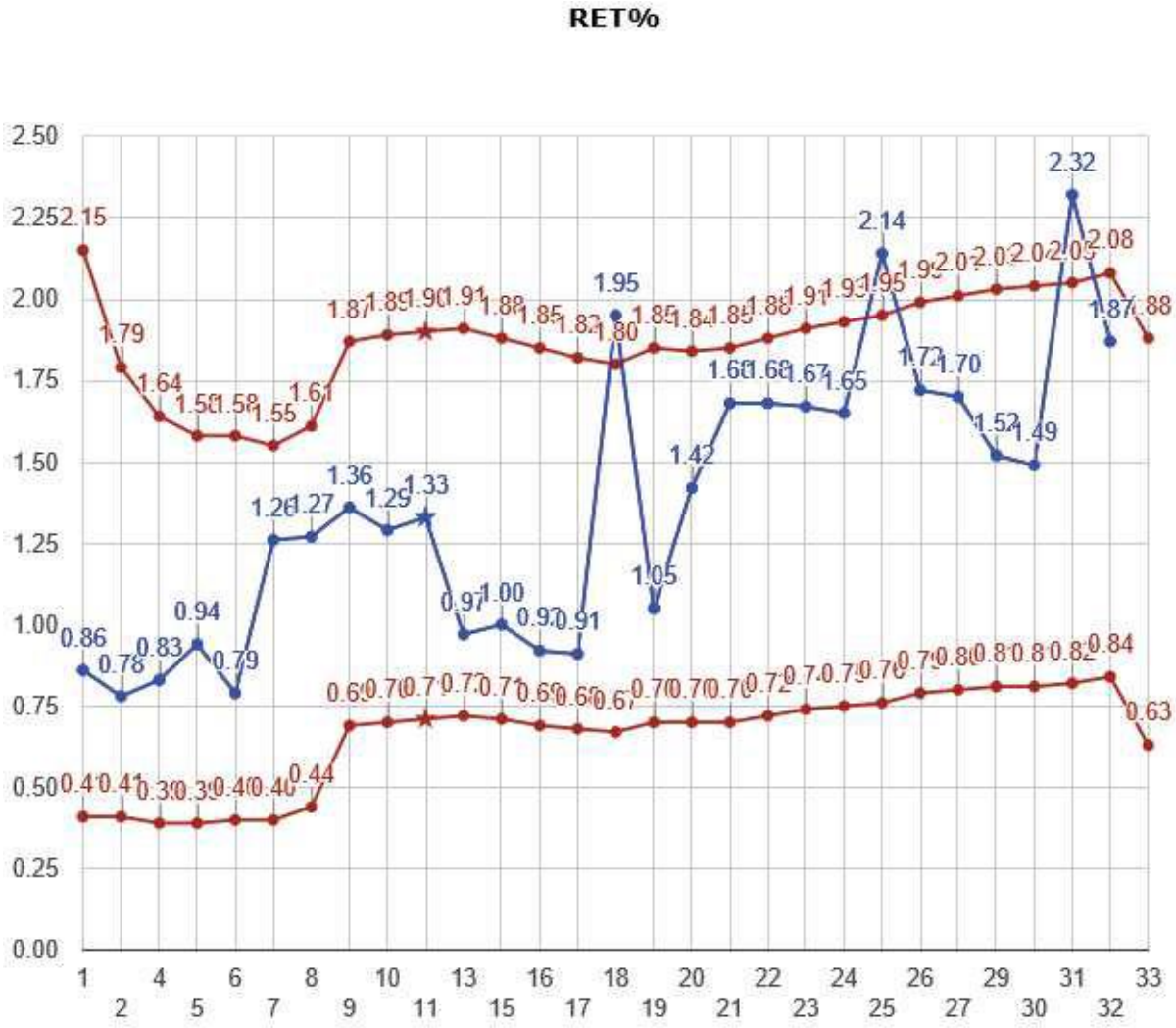
3.1.2 Full profile for haemoglobin (HGB)



3.1.3 Full profile for OFF-score



3.1.4 Full profile for reticulocytes (RET%)


RET%
2.50
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
1 2 4 5 6 7 8 9 10 11 13 15 16 17 18 19 20 21 22 23 24 25 26 27 29 30 31 32 33

[…]

3.2.3 Haematological results

#	Code	Date	HGB	RET%	OFF-score	HCT	RET#	IRF
1	603521	09.07.2018	15.8	0.86	102.4	46.7	0.0473	2.6
2	257746	02.09.2018	17.8	0.78	125.01	50	0.0474	1.7
3	257760	13.10.2018	Invalid					
4	600449	21.11.2018	16.9	0.83	114.3	49	0.0476	2.8
5	398315	09.01.2019	16.7	0.94	108.8	47.7	0.0537	2.2
6	625679	13.02.2019	16.5	0.79	111.7	47.5	0.0447	3.1
7	453781	28.03.2019	15.4	1.26	86.7	45.9	0.0672	4.1
8	660010	26.05.2019	15.4	1.27	86.4	45.5	0.0683	8.4
9	625184	11.09.2019	15.3	1.36	83	46.6	0.0719	6.8
10	688059	02.10.2019	15.9	1.29	90.85	47.8	0.0697	4.2
11	688469	06.10.2019	14.8	1.33	78.8	43.8	0.0665	4.4
12	664044	20.11.2019	Invalid					
13	663663	18.01.2020	16.8	0.97	108.91	50.8	0.0551	3.5
14	702172	16.03.2020	Invalid					
15	471612	27.05.2020	17.7	1	117	52.6	0.0596	4.4
16	699154	04.06.2020	17.8	0.92	120.5	52.5	0.0551	5.8
17	471594	12.07.2020	15.7	0.91	99.8	46.8	0.0486	4.2
18	683371	31.08.2020	15.1	1.95	67.2	46.3	0.1018	8.5
19	469687	17.11.2020	15.8	1.05	96.5	47	0.0553	5
20	738469	03.12.2020	17.1	1.42	99.5	51	0.0824	2.6
21	682603	14.12.2020	17.3	1.68	95.2	50.5	0.0958	14.5
22	699367	20.01.2021	17.9	1.68	101.2	53.1	0.0986	8.7
23	479879	27.04.2021	16	1.67	82.5	47.9	0.0902	12.7
24	721380	05.06.2021	16.1	1.65	83.9	48.8	0.0901	9.6
25	906019	16.06.2021	17.6	2.14	88.2	51.8	0.1258	11
26	905519	17.08.2021	14.9	1.72	70.3	45.3	0.0877	16.3
27	699181	02.09.2021	16	1.7	81.8	47.5	0.0915	9.1
28	701273	10.09.2021	Invalid					
29	490739	22.10.2021	16.6	1.52	92.03	48.1	0.0841	5.8
30	919541	13.11.2021	16.8	1.49	94.8	48.3	0.0827	7.3
31	702217	21.02.2022	15.5	2.32	63.6	46.1	0.1197	7.4
32	932303	15.03.2022	15.8	1.87	76	46.9	0.0984	14.6

Units for the results are those presented in ADAMS. All the results are based on ADAMS information.

C. The First Joint Expert Opinion

16. In early 2022, the APMU sent the ABP Documentation Package to Prof. Giuseppe d'Onofrio, Dr Laura Garvican-Lewis and Dr Jakob Mørkeberg (collectively, the "Joint Experts" or the "Joint Expert Panel") with a request to review the Athlete's blood profile and to provide a joint report.

17. On 25 April 2022, the Joint Expert Panel issued a "Joint Expert Opinion" (the "First Joint Expert Opinion"). In that opinion, the Joint Expert Panel characterised Samples 3, 12 and 14 as invalid and excluded them from evaluation. The Joint Expert Panel also noted deviations from normal procedures in Samples 1, 2, 11, and 31, but concluded that the deviations had no effect on the respective samples and were highly unlikely to affect sample integrity.

18. In the First Joint Expert Opinion, the Joint Expert Panel set forth their quantitative and qualitative assessments of the ABP as follows (footnotes omitted):

"*[…] Quantitative analysis*

The passport was flagged with high hemoglobin concentrations (HGB) in Samples 2, 15, 16 and 22 and a low HGB in Sample 26, high OFF-scores in Sample 2, 15 and 16 and a [sic] low OFF-scores in Samples 18, 26 and 31 as well as high reticulocyte percentage (%ret) values in Sample 18, 25 and 31.

Qualitative analysis

The athlete is an altitude resident and recent altitude exposure is declared for every sample. Sample 2 was collected out of competition at noon, 6 days before a competition. The sample displays a high HGB in tandem with a decreased immature reticulocyte fraction (IRF) indicating erythropoietic suppression. The combination of increased HGB and suppressed production of new red blood cells is characteristic of a discontinued use of an erythropoiesis-stimulating agent (ESA).

From May 2020 (Sample 15) several abnormal features are evident. Sample 15 and 16 shows elevated OFFscore values both driven by high HGBs but also relatively low %ret values (1% and 0.92%) considering the athlete's other values from samples analyzed with the SYSMEX XN model (average value = 1.54%). These samples were collected on the 27th of May and 4th of June 2020 and hence shortly before the National Trials for the Tokyo Olympics, which were originally scheduled for the 19th-21st June, 2020 in Eldoret, Kenya. A follow-up sample collected on the 12th of July 2020 shows much lower HGB. Sample 18 from the 31st of August 2020 has low HGB and elevated %ret (1.95%) indicating an erythropoietic response to a decreased hemoglobin mass. The athlete had been at altitude (Iten, Kenya) for several weeks but was in Nairobi, Kenya for one day on the 26th of August 2020. A brief descent from 2400 to 1500m such as occurs when moving between Iten and Nairobi is unlikely to stimulate such a large reticulocyte response in an altitude native upon return to his resident altitude. Low HGB in tandem with increased %ret is typically observed after accidental blood loss or the withdrawal of blood for subsequent reinfusion.

Sample 20 collected after one day at sea level shows elevated HGB. No plasma volume expansion is evident contrary to a normal adaptation for highlanders going to sea level and to the effect observed in Sample 11 collected before the World Championships in 2019 in Doha, Qatar. Furthermore, the sample is an evening sample. Usually, high HGB values are observed in morning samples due to diurnal plasma volume shifts. The sample is collected 3 days before the 2020 Valencia Half Marathon. HGB remains stable in Sample 21 despite change in altitude with a further increase to a very high HGB level (17.9 g/dL) in sample 22.

Furthermore, there is a relatively large increase in HGB and %ret values from sample 24 to 25 with sample 24 collected in the morning and Sample 25 in the evening. The samples were collected on the 5th and 16th of June 2021 with the athlete participating

in the Kenyan Trails (17th-19th of June) leading up to the 2020 Tokyo Summer Olympics (held in 2021). Such changes indicate the use of an ESA.

Finally, there is a large increase in %ret and decrease in HGB from Sample 30 collected in Nairobi (altitude: ~1700 meters above sea level) on the 13th of November 2021 to Sample 31 collected in Iten (altitude: 2400 meters above sea level) on the 21st of February 2022. When Sample 31 was collected the athlete had been in Iten for 44 days and erythropoiesis (reflected by the %ret value) expected to be normal. Hence withdrawal of blood to be reinfused for an upcoming event is a likely scenario.

In summary, the profile presents several abnormal features including many high HGB values. It is highly abnormal to observe such high values in a general population, but the values are also abnormal for the athlete considering the athlete's other values in the profile and the confounding factors such as altitude and diurnal plasma volume shifts. While tapering before a competition can lead to reductions in plasma volume and thus hemoconcentration with elevated HGB values, the atypical levels observed in the profile interpreted in the context of the %ret and IRF values and changes in altitude, are visible at variable time intervals from competitions and their magnitude goes beyond any possible physiological explanation. In contrast, such changes are highly compatible with blood manipulation, in particular, the use of EPO. […]"

19. The Joint Expert Panel's conclusion in the First Joint Expert Opinion was this:

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

D. The APF

20. In light of that conclusion, the APMU recorded an APF in respect of the Athlete in the WADA Anti-Doping Administration and Management System ("ADAMS").

21. On 4 May 2022, World Athletics notified the Athlete of the APF. In that notification, the Athlete was informed that he was entitled to submit reasons and supporting documentation that might explain the APF. The AIU also sent to the Athlete a copy of the First Joint Expert Opinion.

E. The Athlete's First Explanation

22. On 17 June 2022, by way of response the Athlete submitted an explanation (26 pages plus exhibits) (the "Athlete's First Explanation"). In the First Explanation, the Athlete made the following (*inter alia*) points:

    a. The Athlete had suffered irregular and inconsistent training loads, especially in 2020-2021, due to the pandemic and his police training (e.g., training sporadically from mid-March 2020 to late June 2020, high volume training right before Sample 31).

b. The Athlete suffered alcohol abuse since late 2019 and associated dehydration (which decreases plasma volume, decreasing RET% and increasing HGB).

c. The Athlete suffered two significant infections resulting in gastric problems.

d. During COVID, the Athlete changed his life and training regime, and his period of light training was replaced by no training and/or extreme training.

e. The Athlete underwent police training from 24 September 2021 to 5 October 2021 and from 1 November 2021 to 1 December 2021, during which time he lived in Embakasi, Nairobi, far away from his usual residence in Kenya. The structure and volume of his physical workload was completely different.

f. The Athlete's coach is Brother Colm O'Connell ("Brother Colm"), who has not had a single doping case in his nearly 50-year career. He is a non-scientific and old-fashioned coach with superb results who has built his training philosophy around early talent discovery; slow and methodical training load and intensity progression, with the priority being given to general development over specific development, especially into early years of his involvement with each individual athlete.

g. The Athlete's agent is Mr Davor Savija (the "Agent") who has instilled policies of transparency, clean sport and zero tolerance for cheating. The Agent educates athletes, communicates with them regularly, explains all the rules and helps them to follow all the right procedures and the rules.

h. The procedures observed and taken during the sample collection, transport and laboratory testing of the samples were flawed.

i. Sample 2 should be excluded due to the "*many contradictions, ambiguities and many other irregularities*".

    i. In the laboratory documentation package ("LDP") the "time sealed" for the sample was not recorded. The Kenya ADO said that the sample was collected in Iten at 12:00pm but in the chain of custody form in the LDP it is said that the sample was received in Eldoret (at least 35km away) from Iten.

    ii. The signature of the DCO, Ms Too, on the chain of custody form is completely different to her signature on the DCF.

    iii. The number of the temperature data logger in the chain of custody form does not match the number in the read-out document of the Q-tag document in the LDP.

    iv. Sample 31 should also be excluded. that the "*no sample code on 1 EDTA*" was marked, as written in the LDP on page 6, Annex no. 3 Reception Procedure Form. Also the number of temperature data logger was different on the 'Laboratory Analysis Request Form' prepared by

the doping control officer and it reads '6568474441', while the number on the 'Anti-Doping Sample Reception Procedure Form' and the 'PDF excerpt of data logger' logger both read '10395682'.

j. As to the other samples:

i. Samples 15 and 16 were collected on 27 May 2020 and 4 June 2020 but under different circumstances than as stated by the Joint Expert Panel. The Athlete was not preparing for any competition as all sporting activities were prohibited in Kenya as from 18 March 2020. The Athlete did not compete until the Valencia Half marathon on 6 December 2020.

ii. Sample 20 was taken out-of-competition only hours after arrival from Kenya (high altitude) to Valencia (sea level) and not one day.

23. The Athlete also submitted, in support of his explanation, an expert report of Dr Douwe de Boer dated 16 June 2022 and the Athlete's medical reports dated 25 January 2020 and 11 January 2022.

F. The Second Joint Expert Opinion

24. On 17 June 2022, the APMU forwarded the Athlete's First Explanation to the Joint Expert Panel for review and on 24 August 2022 the Joint Expert Panel issued a further expert opinion (the "Second Joint Expert Opinion").

25. The Second Joint Expert Opinion noted the explanation and additional information provided by the Athlete and identified "*four key pieces of information*":

"*1. The athlete's training and lifestyle were significantly disrupted by the global pandemic and subsequent police training. The sporadic nature of training, and inconsistent training load are proposed to explain fluctuations in HGB concentration.*

2. Due to the postponement of the 2020 Olympic Games to 2021 on March 24th 2020, the 20 Kenyan Olympic Trials were postponed and the athlete was not in fact preparing for the trials in May and June 2020 as indicated in our Joint Expert Opinion.

3. The Athlete has a significant alcohol abuse problem which at times is reported to result in dehydration and an increase in HGB concentration.

4. The Athlete has experienced two significant infections resulting in gastric problems requiring medical attention."

26. The Joint Expert Panel addressed each of these matters, summarised below.

27. In addition, in response to the Athlete's explanation relating to alcohol intake, the Joint Expert Panel requested the ethyl glucuronide (EtG) results relating to urine samples collected concurrently or in close proximity to the samples in the ABP. These results were confirmed by the Ghent APMU as follows:

Sample number (Steroid Module)	*Sample Collection Date*	*EtG (ug/mL)*	*ABP Sample collected same date*
17	*04/07/2019*	*7.1*	*N (next ABP Sample 11/09/2019, Sample 9)*
26	*04/06/2020*	*100*	*Y (Sample 16)*
28	*31/08/2020*	*6*	*Y (Sample 18)*
31	*14/12/2020*	*70*	*N (next ABP Sample 20/01/2021, Sample 22)*
40	*13/11/2021*	*15*	*Y (Sample 30)*
41	*21/02/2022*	*30*	*Y (Sample 31)*

28. The Joint Expert Panel made certain general observations and then addressed the specific samples in issue. As to the former, the Joint Expert Panel noted as follows:

    a. The effect of alcohol on red cell proliferation and differentiation "*has not been clearly documented*". Studies have described the presence of anaemia in alcoholic hepatitis (which is the opposite of the high HGB found in the Athlete's ABP), related to direct toxic effect, inflammation, dietary deprivation and vitamin deficiency. Effects on plasma volume via dehydration are generally mild and observed after acute alcohol intoxication.

    b. The Athlete seems to suggest that, owing to cancellation and postponement of international competition due to the COVID pandemic, there was no advantage to be gained by blood doping. But that is not true. Increased oxygen transport capability produced by Erythropoiesis-Stimulating Agents (or "ESA") –permits more intense training, in terms of exercise load and duration, and this has an obvious effect on performance even after a significant period of time. The use of an ESA during training is confirmed by the fact that, in recent years, several track and field athletes have been found positive for EPO outside of competition.

29. As to the points made by the Athlete with respect to specific samples, the Joint Expert Panel made the following observations.

    a. Sample 2:

        i. As to validity, the time of receipt by the laboratory was 15:52 (pp 4 and 8 of the LDP) not 12:20 (which is in fact the time of sealing of the sample) as stated by the Athlete. This is consistent with the reported time of collection of 12:00pm. Further, when considering hand-writing differences it is clear that the temperature logger number matches (BNLA00713). Therefore, the sample should be considered valid.

        ii. Sample 2 was collected out of competition at 12:00 on 2 September 2018, six days before a competition on 8 September 2018 where the Athlete performed well. The sample displays a high HGB in tandem with a decreased immature reticulocyte fraction ("IRF") indicating

erythropoietic suppression. The combination of increased HGB and suppressed production of new red blood cells is characteristic of a discontinued use of an ESA. The only explanation provided for the abnormalities in Sample 2 is a reduction in training volume. However, given that Sample 1 (collected on 9 July 2018), occurred prior to the high-volume training period (30 July to 26 August 2018) and has lower HGB levels than Sample 2, it is unlikely that the baseline HGB for the Athlete during a "normal" or lighter volume training period in preparation for competition, is as high as demonstrated in Sample 2.

b. Samples 15, 16, and 18

i. It is said by the Athlete that he did not train consistently during 2020 and 2021, due to the pandemic and a period of police training; and that in May and June 2020 he was training minimally while consuming excessive amounts of alcohol. The EtG level reported in the urine sample collected on 4 June 2020 (Sample 16) was 100 ug/mL and may indicate chronic alcohol consumption. However, the specific gravity of Sample 16 is normal (1.023) and does not support the dehydration hypothesis. In any event, while these factors may contribute to an increased HGB concentration due to plasma volume contraction and dehydration, it is highly unlikely to result in such extreme variation.

ii. Further, Samples 15 and 16 have relatively low %ret values (1% and 0.92% respectively) when compared with the Athlete's other values from samples analysed with the SYSMEX XN model (average value = 1.54%). Since reticulocytes are often suppressed by periods of intensified training, the opposite response during a period of minimal training would be expected.

iii. The Athlete's medical records indicate that the Athlete suffered an infection in late June 2020, from which his training was disrupted. The increasing and varied training load between June and November 2020 is said to contribute to mild plasma volume fluctuations. However, Samples 17-19 show little HGB variation despite weekly mileage varying greatly during this period (64 km to 138km). Further, since reticulocyte percentage is independent of any changes in plasma volume, the increased reticulocytes in Sample 18 remain unexplained.

c. Sample 20:

i. It is said that Sample 20 was collected within a few hours of arrival at sea level and not after one day at sea level as was indicated previously. In this instance, a higher HGB value may be attributed to recent altitude exposure before compensatory acclimatization has occurred but does not explain the increase relative to Sample 19 which was collected 2 weeks prior.

d. Samples 24, 25 and 26:

i. Sample 25 was collected two days before the Olympic trials and it displays an increased HGB and RET% from the Sample 24 collected 11 days prior. The Athlete reportedly failed to finish the race and did not qualify for the Olympic team. However, due to injury he was a late replacement arriving in Tokyo six days before the 10,000m final.

ii. By contrast, Sample 26 was collected following returning home and displays a lower HGB and normal reticulocytes, despite reportedly sporadic training up to and after the Olympic Games.

iii. Again, neither the fluctuations in HGB concentration during this period, nor the spikes in reticulocytes, can be wholly explained by the changes in training load reported.

e. Sample 31

i. As to validity, the datalogger ID on the 'Laboratory Analysis Request Form' prepared by the doping control officer ("DCO") reads '6568474441', while the number on the 'Anti-Doping Sample Reception Procedure Form' and the 'PDF excerpt of data logger' logger both read '10395682'. Hence, since the dates on the 'PDF excerpt of data logger' correspond to the sample transportation, the DCO likely made a mistake when he wrote the datalogger ID on the 'Laboratory Analysis Request Form'. Furthermore, as the scattergram looks fine and considering the collection to analysis time (33 25 hours), the mean temperature should just be below 17ºC to have a Blood Stability Score < 85. The sample should therefore be maintained in the profile.

ii. The Athlete suffered another infection in January 2022, which impacted training volume and quality. It is claimed that following recovery the Athlete dramatically increased his training load. Large increases in training load are well known to induce plasma volume expansion which may explain the reduction in HGB concentration observed in Sample 31. However, reticulocytes are not affected by changes in plasma volume and are usually suppressed during periods of heavy training.

30. The Joint Expert Panel's conclusion in the Second Joint Expert Opinion was in these terms:

"*Based on the explanations provided by the athlete we confirm our previous opinion that it is highly likely that a prohibited substance or prohibited method has been used. The information provided to date does not explain the outlying reticulocyte values observed in samples 18, 25 and 31, the high HGB and low IRF in sample 2 and the changes in HGB and %ret from samples 24 to 25.*"

G. The Athlete's Second Explanation

31. On 31 January 2023, the Athlete submitted a supplementary explanation (the "Second Explanation"). The Athlete made the following main points:

a. The Athlete's values in his ABP are largely affected by his alcohol problem, dehydration and training/detraining periods. The Athlete and his coach "*are fully convinced*" that the abnormalities claimed in his ABP have not been caused by the use of any prohibited substance/method and the irregularities claimed can be plausibly explained by those factors.

b. The overall changes in the Athlete's ABP are consistent with the presence of ethyl glucuronide and leave no room for doubt that in this specific case ethanol intake was associated with those changes. These findings are further confirmed by a statement made by Assoc. Prof. Martin Kuchař.

c. The experts have identified Samples 2, 15, 16, 18, 22, 25, 26, and 31 as abnormal or irregular.

d. Apart from Sample 2, all other flagged samples were collected in the second half of 2019 which is the period when alcohol abuse has already begun and escalated. The alcohol abuse can be demonstrated by reference to the values of ethyl glucuronide ("EtG") in Athlete's urine samples. In 2018, there were 10 samples with only 2 samples containing EtG. In 2019 there were 10 samples with only 2 samples containing EtG, with one sample having a significant value. In 2020 there were 10 samples with 7 samples containing EtG, with 5 samples containing significant values. In 2021 there were 9 samples with 4 samples containing EtG, with 3 samples containing significant values. In 2022 there were 5 samples with 2 samples containing EtG, with both having significant values.

e. As for the Sample 15, it was collected on 27 May 2020. This was the time of COVID pandemic. Therefore, it would make absolutely no sense for the Athlete to use prohibited substances/methods during this period. Moreover, at this time the Athlete consumed alcohol in considerable amounts therefore his ABP values were considerably affected by his drinking habits.

f. As for the Sample 16, similarly to Sample 15, this sample was collected during a COVID-19 pandemic. The Athlete did not participate in any race nor was he in any preparation for any race/competition at or before the sample collection. The Athlete was also abusing alcohol considerably at the time of the collection of this sample.

g. Moreover, Samples 15 and 16 should be read together. After the COVID-19 pandemic was announced in Kenya, the Athlete failed to train and his lifestyle deteriorated, as a result of which he missed opportunities to compete in Diamond League meetings and he also missed the Prague Restart event (one of the very few organised in 2020 globally and co-organised by his management, with many

of Ikaika Sports athletes participating). The Athlete was simply not healthy enough, not living well enough, not training well enough.

h. Sample 18 was collected on 31 August 2020. The Athlete did not train a lot during summer 2020, he suffered from abdominal infection in June, never fully recovered, and he continues to suffer from frequent undiagnosed gastrointestinal issues. He trained sporadically with high and low mileage and intensity. Again, at the time of collection of the sample, the Athlete was not preparing for any race/competition so the use of prohibited substance/method would make no sense.

i. Sample 22 was collected on 20 January 2021. At that time (or before) the Athlete was preparing for a local cross-country race. (The first international race that the Athlete participated in was only in May 2021). It made no sense for the Athlete to use a prohibited substance/method in connection with an inferior race.

j. Sample 25 was collected on 16 June 2021, during the Olympics trials. This sample is characterised by the high HGB value (17.6), high RET value (2.14) and moderate OFF-score (88.2). At that time, the Athlete did not participate in any competition, he was only preparing himself for a competition one month later.

a. Sample 31 was collected on 21 February 2022. The first race the Athlete was truly preparing for at the beginning of the 2022 season was only a race held in late April. As a part of his training for the race held in late April, the Athlete was running in New York in mid-March, but this was a training race only with no specific preparation or result importance.

k. The only sample where it would "*make sense*" for the Athlete to use prohibited substance/method is Sample 2. The Athlete was likely not abusing alcohol at that moment but Sample 2 is only the second sample contained in the Athlete's ABP. It is well known that the haematological ABP is a longitudinal profile of athletes' blood parameters. It is also well known that the more samples are included in ABP, the more precise the ABP is. In our view it is not possible to infer anything from the initial sample that was collected only at the very beginning of the Athlete's ABP. It is not specific enough; it is not unique to the Athlete. Sample 2 should in any event be excluded from the Athlete's ABP due to numerous irregularities.

l. The AIU should undertake a longitudinal study on the Athlete's blood markers, Such a study, which parameters should be agreed upon between the AIU and the Athlete, would be unequivocal evidence that the irregularities in the Athlete's ABP were (have been and are) caused by the physiological indicators affected by the use of an alcohol on part of the Athlete, as well as of dehydration and inconsistent training loads in terms of volume and intensity.

32. The Athlete also submitted, in support of his explanation, an Expert Statement of Dr Douwe de Boer dated 27 January 2023 and an Expert Statement from Assoc. Prof. Martin Kuchař dated 31 January 2023.

H. The Third Joint Expert Opinion

33. On 2 May 2023, the Joint Expert Panel issued a further expert opinion (the "Third Joint Expert Opinion"), this time dealing with what had been said by the Athlete in his Second Explanation.

34. The Joint Expert Panel made the following *inter alia* points in the Third Joint Expert Opinion:

a. The high likelihood of doping results from multiple flags triggered by the profile in the adaptive model software, including multiple outliers, which indicate an excess of the variability of the ABP blood markers in this Athlete. The profile presents 25 several abnormal features, including many high HGB values. It is highly abnormal to observe such high values in a general population, but the values are also abnormal for the Athlete considering the Athlete's other values in the profile and the confounding factors such as altitude and diurnal plasma volume shifts.

b. Alcohol: The Athlete claims that the abnormalities observed in the passport can be explained by the Athlete's alcohol abuse problem; more specifically, it is argued that the Athlete's state of dehydration, presumably resulting from chronic alcohol intake can explain the increased HGB values. However, neither acute nor chronic studies have shown that alcohol intoxication in any species results in fluid and 25 electrolyte depletion in the absence of vomiting and diarrhoea, with acute or chronic alcohol actually resulting in an increase in plasma volume (that is, haemodilution, producing lower HGB values), not a decrease. In general, the fluid volumes of alcoholics are higher than controls and the "*common presumption that all alcoholic patients are dehydrated… must be closely scrutinized*".

c. Gastric problems: It has been shown that the fluid loss associated with gastroenteritis (of the severity requiring hospitalization) does not cause changes in an athlete's blood data to reach levels of abnormality that were suspicious of blood doping, with no values breaching the upper limits. Indeed, from a regulatory perspective, the intravascular compartment is "*protected*" such that homeostasis works to keep blood volume stable.

d. Doping scenario: The Joint Experts rebut the claim that there is no advantage to be gained by blood doping far from competition. Increased oxygen transport capability, produced by ESA stimulation and its effect on HGB mass and, possibly, concentration, permits more intense training, in terms of exercise load and duration, and this has an obvious effect on performance 25 even after a significant period of time.

e. Sample 2: While it is only the second sample of the profile, the high HGB and OFF-score are clearly anomalous when considered against the remainder of the profile.

35. The Joint Expert Panel's conclusion in the Third Joint Expert Opinion was in these terms:

"*Based on the explanations provided by the athlete we confirm our previous opinion that it is highly likely that a prohibited substance or prohibited method has been used. The explanations of the Athlete do not explain the outlying reticulocyte values observed in samples 18, 25 and 31, the high HGB and low IRF in sample 2 and the HGB and %ret values in samples 25 and 26.*"

I. The Notice of Charge

36. On 11 May 2023, World Athletics notified the Athlete that, on the basis of the First, Second and Third Joint Expert Opinions, the Athlete was charged with a violation of Article 2.2 of the 2023 ADR (use of a prohibited substance or prohibited method) and that the Athlete was provisionally suspended immediately (the "Notice of Charge").

J. The Athlete's Response to the Notice of Charge

37. On 17 May 2023, the Athlete submitted a response to the Notice of Charge. He said that he did not commit the ADVR and wished to do everything possible to defend himself and "*clear his name*".

38. On 24 May 2023, the Athlete formally denied the charge and requested a hearing before the Disciplinary Tribunal.

K. The Disciplinary Tribunal

39. The Athlete filed his Answer on 8 January 2024. In that Answer, he put forward the following additional arguments and factors:

a. Neutropenia and G-6-PDH (glucose-6-phosphate dehydrogenase) deficiency: On the basis of blood analysis performed by Prof. Ĉermák on 1 August 2023, and of a report prepared by Dr Hemant Saha (a specialist in internal medicine at the Aga Khan Hospital in Nairobi, Kenya) dated 16 October 2023, the Athlete has been diagnosed with neutropenia and G-6-PDH deficiency, in which low levels of neutrophils were reported, as well as a reduced value of G-6-PDH. The Athlete's father and uncles have also been diagnosed with neutropenia.

b. An alcohol study and private testing to support his existing theory about alcohol abuse: There has been an expert study performed on the Athlete to see how his blood parameters were being influenced by his alcohol intake. The first sample was collected on 20 November 2023 and the last on 5 January 2024. The results indicate that the claimed abnormalities in the Athlete's ABP are not as a result of doping but "*due to natural and specific characteristics of the Athlete's body*" and other characteristics. The results seem consistent with a hypothesis that

when a person consumes considerable amounts of alcohol for several days/ weeks, the concentration of HGB may drop to relatively low levels and, when this period ends, red blood cell production rebounds, manifested by high RET% values.

c. Primary familial and congenital polycythaemia: It is likely that the Athlete suffers from primary familial and congenital polycythaemia ("PFCP"). Given the finding of significant polyglobulia in the Athlete's father and uncles this disease represents a heterogenous group of disorders with the common characteristic of increased red blood cell mass since birth.

40. World Athletics filed its Reply on 19 February 2024 which included a further opinion from the Joint Expert Panel dated 15 February 2024 (the "Fourth Joint Expert Opinion") which addressed the additional matters advanced by the Athlete in his Answer before the Disciplinary Tribunal.

41. The Joint Expert Panel's views as set forth in the Fourth Joint Expert Opinion may be summarised in the following way:

a. Neutropenia is a common and transitory condition, with many causes including HIV, hepatitis, tuberculosis, sepsis, Lyme disease, cancer, and bone marrow disorders. It has also been documented in endurance athletes and is considered to be an adaptive response unrelated to any underlying pathology, and to be benign and beneficial. It is the experience of the Joint Experts that neutropenia is a common finding in the ABPs of African athletes living at altitude due to it being a common and often transitory condition. Therefore, we exclude that neutropenia of any origin has any relationship with the Athlete's erythropoietic markers and anomalies.

b. G-6-PDH deficiency is the most common human enzyme defect affecting approx. 400m people worldwide and mostly diagnosed in males and people of African, Mediterranean or Asian descent. The most frequent clinical manifestation is acute haemolytic anaemia, usually triggered by an exogenous agent. In the report of Dr Saha, the Athlete's deficiency is described as mild with all other studies assessed as normal for haemolysis/ sepsis/ coagulopathy, and that iron studies and foliate are normal. Neither haemolytic episodes nor chronic anaemias have been observed in the Athlete's history and are absent from the Athlete's ABP. "*Therefore, we exclude that mild G-6-PDH deficiency in the Athlete can explain the abnormalities observed in his ABP.*"

c. Data has been provided from the Athlete's father and uncles in support of a potential diagnosis of PFCP. Dr Bohonek and Prof. Čermák consider that this should be the subject of further investigation. In light of the current knowledge about erythrocytosis, the Athlete's argument does not make any sense in the present case due to the marked variation of haematological parameters over a number of years (being inconsistent with genetic origin) and due to the fact that he has not explored possible justifications for the ABP anomalies. There is an essential difference between primary and secondary erythrocytosis, which the

Athlete's experts have ignored; and the current state of testing of the Athlete's erythrocytosis is insufficient. With respect to the Athlete's ABP, congenital forms of erythrocytosis can be excluded due to the striking variability of the Athlete's ABP markers over time, and without the need for any further tests.

d. Data has been provided from a case study on the Athlete in 2023 with respect to his alcohol intake; the data analysis has not been finalised and conclusions have not been drawn. By the Athlete's admission and the report of Ihar Nekrashevich, the ABP values cannot be directly compared to the study and pre-study data due to differences in processes, instrumentation and the like. HGB values must be drawn from two consecutive analyses but only the one analysis was performed for the study, thereby preventing any meaningful interpretation. Further, since the Athlete was aware of the study protocol and hypothesis, sample manipulation cannot be excluded.

e. "*None of the specific explanations provided by the athlete can explain the severe haematological abnormalities observed. Therefore, we confirm our previous opinion that it is highly likely that a prohibited substance or prohibited method has been used and that it is highly unlikely that the passport is the result of any other cause.*"

42. A remote hearing took place before the Disciplinary Tribunal on 22 April 2024, and the Disciplinary Tribunal handed down its award (this is the Appealed Decision) on 28 May 2024. The Appealed Decision contained an order in the following terms:

"*203. For the reasons set out above, the Panel rules the following:*

1. The Disciplinary Tribunal has jurisdiction to decide on the subject matter of this dispute.

2. The Athlete has committed an ADRV pursuant to Rule 2.2 ADR in force between September 2018 and March 2022 (2018, 2019, and 2021 ADR).

3. A period of Ineligibility of six (6) years is imposed upon the Athlete for the ADRV, commencing on the date of the Disciplinary Tribunal's Award.

4. The period of Provisional Suspension imposed on the Athlete from 11 May 2023 until the date of this decision shall be credited against the total period of Ineligibility.

5. All competitive results obtained by the Athlete from 2 September 2018 to 11 May 2023 shall be Disqualified with all resulting Consequences, including forfeiture of any titles, prizes, medals, points and prize and appearance money, pursuant to Rule 10.10 ADR.

6. Each party shall bear its own legal costs and expenses incurred in connection with these proceedings.

7. All other motions or prayers for relief are dismissed."

IV. PROCEEDINGS BEFORE THE CAS

43. On 27 June 2024, in accordance with Articles R47 and R48 of the CAS Code, the Athlete filed his Statement of Appeal against the Appealed Decision with the CAS Court Office. In the Statement of Appeal, the Appellants nominated Mr André Brantjes as arbitrator.

44. On 19 July 2024, World Athletics nominated Prof. Fumagalli as arbitrator.

45. On 5 September 2024, the CAS Court Office informed the Parties of the formation of the Panel, comprised of Mr James Drake KC (as President), Mr André Brantjes, and Prof. Fumagalli.

46. On 23 December 2024, the Athlete filed his Appeal Brief.

47. On 14 May 2025, World Athletics submitted its Answer. With is Answer, World Athletics exhibited what was called the "Fifth Consolidated ABP Expert Report" dated 15 April 2025 (hereinafter the "Fifth Joint Expert Opinion").

48. On 19 June 2025, the Panel held a case management conference ("CMC") in order to discuss the manner and timing of the hearing. At the CMC, the Panel directed that the hearing would be held on 13 and 14 November 2025 (in a hybrid fashion, with the Panel and counsel appearing in person with the witnesses free to appear remotely according to the convenience of the Parties). The Panel also made the following (*inter alia*) directions:

    a. The Athlete was given leave to serve a short expert report from Prof. Brandt in reply to the Fifth Joint Expert Opinion.

    b. The Athlete was directed to give evidence by an (agreed) independent interpreter (Swahili/ English).

    c. The Athlete was to confirm whether Dr de Boer and Prof. Čermák will be called as expert witnesses and, should they not be called, the Athlete was to specify the basis upon which the Panel should consider their expert opinions.

    d. The Parties were to agree a proposed hearing schedule.

49. On 23 October 2025, the CAS Court Office sent to the Parties an Order of Procedure which was duly signed and returned by the Parties.

50. On 13 November 2025, an oral hearing took place at CAS in which hearing the following people participated:

    a. The Panel (in person)

    b. For the Appellants:

        i. Mr Jan Krabec, counsel (in person)

ii. Mr Davor Savija, the Athlete's agent (in person)

iii. Prof. Stephen Brandt, expert witness (in person)

iv. Prof. Jaroslav Ĉermák, expert witness (remotely)

v. Bro. Colm O'Connell, the Athlete's coach (remotely)

vi. Ms Jackline Kurui, interpreter (remotely)

vii. the Athlete (remotely)

c. For World Athletics:

i. Mr Nicolas Zbinden, counsel (in person)

ii. Mr Adam Taylor, counsel (in person)

iii. Ms Laura Gallo, AIU case manager

iv. Prof. Giuseppe d'Onofrio, Joint Expert Panel (in person)

v. Dr Laura Garvican-Lewis, Joint Expert Panel (remotely)

vi. Dr Jakob Mørkeberg, Joint Expert Panel (remotely)

d. For the CAS:

i. Ms Amelia Moore, CAS Counsel (in person)

51. At the outset of the hearing, the Parties confirmed that they had no objection to the jurisdiction of CAS in this appeal and no objection to the composition of Panel.

52. At the close of the hearing, the Parties confirmed that they had a full and fair opportunity to present their respective cases before the Panel.

V. THE EVIDENCE

53. For the purposes of this appeal, the Parties adduced factual and scientific evidence in relation to the Athlete and his ABP profile. This supplemented what was before the Disciplinary Tribunal.

A. The Athlete's Evidence

54. For the Athlete, his factual witness evidence included the following:

a. A witness statement dated 2 December 2024 from the Athlete himself.

b. A statutory declaration dated 3 December 2024 from Mr Kiptanui to the effect that he was the Athlete's father and that he had undergone testing in Kenya between July 2021 and December 2024 related to the suspected neutropenia and or PFCP and or other investigated medical conditions of the Athlete.

c. A statutory declaration dated 3 December 2024 from Mr Tanui to the effect that he was the Athlete's uncle and that he had undergone testing in Kenya between July 2021 and December 2024 related to the suspected neutropenia and or PFCP and or other investigated medical conditions of the Athlete.

d. A statutory declaration dated 3 December 2024 from Mr Komen to the effect that he was the Athlete's uncle and that he had undergone testing in Kenya between July 2021 and December 2024 related to the suspected neutropenia and or PFCP and or other investigated medical conditions of the Athlete.

e. A witness statement dated 2 December 2024 from Bro. Colm O'Connell, the former principal of St Patrick's High School in Iten, Kenya and the Athlete's coach for many years. It was Bro. O'Connell's evidence that, as a young athlete, the Athlete was a disciplined young man who was "*honest and passionate in athletics*" but, as a result of changes brought about by COVID and changes to his lifestyle, including the abuse of alcohol, he returned a different person with no clear racing structure and no guidance as to how racing opportunities would be created. He said that the idea that the Athlete would dope was "*completely not in keeping with the character I know*". Bro. O'Connell also gave evidence (to the same effect) at the hearing of the appeal.

f. A witness statement dated 3 December 2024 from Davor Savija, the Athlete's agent. Mr Savija said that he began to warn the Athlete of "*general dangers … of alcohol abuse*" in the second part of 2018 but that the Athlete was not interested in this conversation. He had a "*heads-on*" talk with the Athlete after the Athlete's 2020 Valencia 10k world record and from then on they talked more freely about it, which conversations were sometimes tense, with threats on his part to leave the management. There were several ugly alcohol abuse phases and self-harm risk phases. When the Athlete learned of the APF he was "*frozen*", and unable to understand what was being explained to him. Mr Savija did not appear as a witness at the hearing of the appeal.

55. The Athlete also put forward various scientific and medical reports (and associated supporting documentation) from the following:

a. Dr Saha, from the Aga Khan University Hospital, Nairobi;

b. Mr Nekrashevich, a chemist who works for Morgan Sports Law;

c. Dr Douwe de Boer, a consultant with Fair Drugtesting (and the Head of the Department of Protein Chemistry, Central Diagnostic Laboratory, Maastricht University Medical Centre, Maastricht, The Netherlands);

d. Prof. Jaroslav Ĉermák, Head of EuroBloodNet Center for Rare Hematological Disorders, Institute of Hematology and Blood Transfusion, Prague; and

e. Dr Stephen Brandt, Professor Emeritus of Medicine, Division of Haematology-Oncology, Vanderbilt University Medical Center, Nashville, Tennessee, USA.

56. In the event, however, at the hearing of the appeal the Athlete did not rely on the evidence of Dr Saha, of Mr Nekrashevich, or of Dr Douwe de Boer. Instead, the Athlete relied primarily on the expert evidence of Professors Ĉermák and Brandt.

Prof. Jaroslav Ĉermák

57. The Athlete adduced three reports from Prof. Ĉermák. The first report is dated 16 April 2024 and is a joint report with Colonel Miloš Bohoněk, Head of Department of Haematology and Blood Transfusion, Senior Consultant for Haematology and Blood Transfusion, Army of The Czech Republic. The conclusion and recommendations were as follows:

"*Conclusion:*

Hypocellular hematopoiesis with a multiplied lymphoid population indicates an incipient hematopoietic disorder with a number of possible etiologies in terms of NHL (Non-Hodgkin lymphoma) or hypocellular MDS (Myelodysplastic syndrome). On the other hand, low serum erythropoietin levels are indicative of increased endogenous erythropoiesis activity and preclude external administration of growth factors such as erythropoietin.

The results of the examination show, among other things, that the observed non-standard fluctuations in hemoglobin values in the so-called biological passport of the patient in the years 2020 - 2022 are likely caused by a primary disorder of hematopoiesis, i.e. a primary haematological disease and not by external interventions. Influence of secondary factors such as alcohol abuse of the patient to the fluctuations of the haematological values of the patient cannot be ruled out.

Recommendations:

Hematologically, currently no curative measures, but dispensation and regular haematological follow-ups are advisable, at least after 6 months ("Watch and Wait"). Furthermore, any major secondary factors (such as the excessive alcohol consumption of the patient, and/or significant fluctuation of the patient's athletic training loads) shall continue to be monitored. The examinations recommended above (such as NGS panel for congenital erythrocytosis) shall be performed.

At the next follow-up, in addition to checking the blood count, erythropoietin values and biochemical examination, beta-2 microglobulin and ELFO proteins with immunofixation."

58. The second report from Prof. Ĉermák is dated 8 July 2024. Its salient conclusion was as follows:

"***Result**: variant detected*

A variant in the G6PD gene (X chromosome) was detected in the heterozygous form.

In exon 5 of the G6PD gene, variant ENST00000393562.10:c.376A>G, p.(Asn126Asp), rs1050829 was detected. This variant is classified as probably benign according to the ACMG classification (VarSome). It is listed in the ClinVar database, as well as in the Uniprot database, with conflicting interpretations (benign and pathogenic entries). The frequency in the population according to gnomAD exomes is 0.00958. Variants in the G6PD gene can cause deficiency of the glucose-6-phosphate dehydrogenase enzyme with various severe clinical manifestations of haemolysis. The findings of the genetic testing should be consulted with a clinical geneticist who is responsible for interpreting the results of the laboratory testing to the patient and recommending appropriate treatment, dispensary and preventive measures for the patient and their family."

59. The third report from Prof. Čermák is dated 4 September 2024, and the stated result was as follows:

"***Result: No pathogenic or likely pathogenic germline variant was detected in the analyzed genes**. One variant with conflicting classifications of pathogenicity was detected in the JAK2 gene. […]*

JAK2 L393V lies within a linker region of the JAK2 protein (PMID: 29685781). It was found as a germline variant in a V617F-positive PV patient. The patient was ethnic Japanese and had a preceding 12-year history of initially isolated thrombocytosis followed within an ensuing year also by erythrocytosis. He had a history of coronary thromboses. At the time of the study, the patient had a very low JAK2V617F allele burden (at 1%) together with additional somatic mutations: DNMT3 p.R882H; ALK p.K52R; GATA-2 p.L359V (PMID: 27647865). Functional studies showed that L393Vconfers a gain of function to the Jak2 protein, as demonstrated by increased transcriptional activity of Stat1, 3, and 5, and increased ligand-dependent cell viability as compared to wild-type Jak2 in culture.

JAK2 germline variants have been proposed to represent low penetrant alleles with a predisposing potential for myeloproliferative neoplasms (MPNs). Further studies are needed to understand their functional behavior and clinical significance."

Prof. Stephen J. Brandt

60. The Athlete also adduced expert reports from Prof. Brandt. The first report is dated 20 December 2024. In that report, Prof. Brandt concluded that he believed that he abnormalities in the Athlete's ABP were caused by the Athlete's PFCP. His report may be summarised as follows:

    a. In its quantitative analysis, the Joint Expert Panel cited high HGB concentrations in Samples 2, 15, 16 and 22, a low HGB concentration in Sample 26, high OFF-Scores in Samples 2, 15, and 16, and low OFF-Scores in Samples 8, 26 and 31 as well as high %RET in Samples 8, 25 and 31.

b. In fact, the Athlete's HGB concentration was almost invariant for a six-month period between July and December 2024 in which the Athlete did not train or compete and had significantly reduced his drinking. That said, the ABP shows a peak and valley pattern with peaks in HGB concentration equal to (Sample 25) or greater than (Samples 2, 16 and 22) the upper limit of normal determined by modelling for the Athlete. Likewise, distinct nadirs were apparent, corresponding to Samples 1, 11, 18, and 26.

c. Possible explanations for this steep decline in HGB concentration between Sample 16 (4 June 2020) and Sample 17 (12 July 2020) are: haemolysis precipitated by the antibiotic ciprofloxacin, prescribed on or about 25 June 2020; direct toxicity of alcohol on erythroid precursors; an infectious disease; and/or PFCP.

d. A PFCP diagnosis is established through (i) documentation of (isolated) erythrocytosis, (ii) normal HGB oxygen affinity, (iii) an EPO serum concentration below or at the lower range of normal, and (iv) a family history consistent with autosomal dominant inheritance. Each of these elements has been satisfied here.

e. By way of conclusion: "*In sum, from my review of the Athlete's ABP and Hematological Module and the results of sequencing analysis, I believe that an inherited medical condition, primary familial / congenital polycythemia, is responsible for the variance identified in [the Athlete's] ABP. […] In conclusion, I suggest that PFCP, whose incidence is likely increased in elite, especially endurance, athletes, produces an abnormal ABP by increasing the responsiveness of erythroid progenitors in situations of recovering erythropoiesis and/or by enhancing the effects of recognized confounding factors on the ABP, to the extent they are mediated by EPO. Since there is no direct evidence for doping but there is for an inherited polycythemia, it is my considered opinion that PFCP is more likely to account for the abnormal passport of [the Athlete] than rhEPO administration or autologous blood transfusion.*"

61. The second report from Prof. Brandt is dated 15 August 2025. In it, Prof. Brandt "rebutted" a number of the points made by the Joint Expert Panel in its Fifth Joint Expert Opinion and he confirmed his view that the Athlete bore all of the diagnostic elements of PFCP as well as the HFE H63D mutation, and that these inherited genetic conditions were the likely cause of the Athlete's abnormal ABP.

B. World Athletics' Evidence

62. As noted above, the Joint Expert Panel provided, throughout the course of this matter, four Joint Expert Opinions, the material elements of which are summarised above. World Athletics relies on these reports, together with the Fifth Joint Expert Opinion (dated 15 April 2025 and exhibited to World Athletics' Answer) in this appeal. By this Fifth Joint Expert Opinion, the Joint Expert Panel addressed what had been said by

Prof. Brandt in his report dated 20 December 2024 and concluded, once again, that the Athlete's ABP was highly likely due to blood manipulation:

"*The totality of ABP evidence, combined with the lack of viable physiological or genetic alternative explanations, leads the ABP Expert Panel to the unanimous conclusion that the Athlete's blood profile is highly likely the result of blood manipulation and highly unlikely due to any other cause. The variations observed are not consistent with any recognized physiological or benign genetic profile but are typical of doping scenarios involving suppression of erythropoiesis followed by recovery.*

We affirm our conclusion with a high degree of scientific confidence."

VI. THE SUBMISSIONS OF THE PARTIES

63. The Panel has carefully considered all of the Parties' submissions and sets out below the essential nature of the principal submissions advanced by the Parties. The Panel does not, of course, repeat all that was submitted by the Parties but provides a summary of the important points advanced.

A. The Athlete's Submissions

64. The ABP flagged fluctuations in the Athlete's blood markers are explainable by a combination of genetic predispositions, altitude training, detraining, and alcohol consumption.

65. PFCP:

a. After the ABP findings were flagged, the Athlete underwent extensive medical testing to uncover any genetic or other physiological conditions that could explain the flagged blood markers. These tests have revealed significant genetic factors that provide a scientific basis for the fluctuations observed in his ABP profile. The Athlete underwent comprehensive genetic and medical testing, which revealed the diagnosis of primary familial / congenital polycythemia ("PFCP"), the presence of the JAK2 L393V polymorphism, and that the Athlete was found to be heterozygous for the minor allele in hemochromatosis HFE H63D. PPFCP enhances EPO responsiveness of the Athlete and thereby increases erythroid biomarkers and magnifies ABP variability.

b. Prof. Brandt has conducted an in-depth genetic evaluation of the laboratory results of the Athlete. Based on extensive testing and analysis, Prof. Brandt concludes that the abnormalities are more likely attributable to primary familial PFCP than to any form of doping.

c. Prof. Brandt's evaluation confirms that this genetic predisposition, in conjunction with high-altitude training, training/detraining cycles, travel, and alcohol consumption, provides a scientifically robust explanation for the flagged anomalies in the ABP.

66. Training:

a. The Athlete's training logs show that he has consistently engaged in altitude training, a widely recognised practice among elite endurance athletes. Altitude exposure induces physiological adaptations, particularly an increase in red blood cell mass and HGB concentration, as the body responds to reduced oxygen availability at higher elevations. As the body's oxygen-carrying capacity improves, HGB levels naturally rise, which is a documented and scientifically accepted consequence of altitude exposure.

b. Upon completion of altitude training, athletes often undergo a detraining period, in which the intensity of training is temporarily reduced to allow for recovery. This recovery phase can cause rapid changes in blood parameters, as the body readjusts to the new training regime. These detraining periods are crucial for the long-term maintenance of peak performance and injury prevention in high-performance athletes.

c. Between 2020 and 2021, the global COVID-19 pandemic and a five-week period at the Embakasi Police Academy disrupted Athlete's training schedule. These interruptions resulted in sporadic and inconsistent training during sample collection periods, further contributing to variability in his physiological markers.

d. The intensive training blocks undertaken by the Athlete, particularly in high-altitude environments, resulted in physiological adaptations and had an effect on HGB levels and red blood cell production.

e. The Athlete's training regimen while he stays in high altitude (as a high- altitude dweller), causes significant increases in red blood cell production. The effects of altitude training on blood values are well-documented in sports science and provide a natural explanation for the flagged ABP results. Prof. Brandt highlights that the Athlete's blood parameters exhibit clear patterns consistent with altitude-induced adaptations.

67. Alcohol:

a. The problems with an abnormal use (abuse) of alcohol on part of the Athlete started to develop in late 2019. In the year 2020, once the pandemic of COVID-19 struck the world, the Athlete lost motivation and started abusing alcohol heavily.

b. During certain periods of time (including the COVID-19 pandemic), the Athlete made lifestyle choices, including increased alcohol consumption, that negatively impacted his physical condition and contributed to transient physiological changes. Initially, the alcohol intake of the Athlete was assessed as recreational usage, i.e. that its effect was assumed to be insignificant.

c. The significance of the link between the Athlete's alcohol abuse and the APF was realised by one of the experts, Dr. Douwe de Boer on or about 15 June 2022, when considering the effect of dehydration on the physical state of the Athlete, it is obvious the Athlete has a serious and regular drinking habit. Dr. de Boer's report as of 29 January 2023 links the alcohol intake of the Athlete to the levels of ethyl glucuronide in the urine samples.

d. The alcohol consumption is not uncommon in the family of the Athlete and while reconstructing the personal situation of the Athlete, his alcohol consumption was also linked to Atypical Passport Finding.

e. High amounts of ethyl glucuronide were also detected during the period of the calendar year of 2020 from which some of the flagged samples were taken. Specifically, in 2020, seven out of seven urine samples contained ethyl glucuronide, with five samples containing significant values. As to the ethyl glucuronide levels in Sample 16 and Sample 18, both samples were collected during the COVID-19 pandemic, at a time when the Athlete consumed alcohol in considerable amounts. It would have made no sense for the Athlete to use prohibited substances/methods during this period, especially during times of modest, very little or no training.

f. The Athlete's agent, Mr Savija is in possession of photos and other evidence (multi-year long communication with the Athlete and his coach and management staff) from which it is obvious that the Athlete has had very serious and long-term problems with alcohol abuse.

g. Based on several tests related to S-g-glutamyl transferase, liver damage has been clearly demonstrated.

h. The Athlete underwent a medical study to see how his blood parameters are being influenced by drinking/non-drinking of alcohol. The study started by collecting the first sample on 20 November 2023, and ended on 5 January 2024, by collecting the last sample.

i. As visible in the study, some values have reached the upper threshold of the data contained in the ABP during the study, which shows that the claimed abnormalities in the Athlete's ABP are not a result of doping but due to natural and specific characteristics of the Athlete's body and other circumstances raised in the Appeal Brief (including alcohol consumption and medical conditions of the Athlete).

68. Conclusion:

a. Together, all of the confounding factors described above provide a comprehensive and scientifically supported explanation for the fluctuations observed in the Athlete's ABP. Each of these confounding factors must be considered in totality, rather than in isolation, when evaluating the ABP data. The ABP system, while effective in detecting general deviations from expected

norms, cannot account for the complex interplay of genetic, environmental, and lifestyle factors that uniquely affect each athlete's physiology. In the case of the Athlete, these confounding factors offer a comprehensive and scientifically supported explanation for the observed blood value fluctuations.

b. Prof. Brandt concludes that PFCP offers the most plausible explanation for the abnormalities observed in the Athlete's ABP. Therefore, Prof. Brandt's expert opinion supports the conclusion that the resulting increased responsiveness of erythroid progenitors in situations of recovering erythropoiesis and/or the enhancing effects of recognised confounding factors explains the abnormalities of the ABP. The ABP abnormalities are more likely attributable to natural physiological, genetic and other above-described confounding factors (in their mutual interactions) of the Athlete than to the use of prohibited substances or methods.

69. The Athlete, by his Appeal Brief, sought the following relief:

"*138 In light of the substantial scientific, medical, and factual evidence presented in this brief, the Athlete respectfully requests CAS to issue an Award holding that:*

I. The CAS has jurisdiction to decide on the subject matter of this dispute. The Appeal of Appellant is admissible.

II. The decision by the Sports Resolutions Panel dated 28 May 2024, file no. SR/187/2023, incl. all sanctions included, is annulled (set aside).

III. The Appellant did not commit any anti-doping rule violation pursuant to Rule 2.2 ADR in force between September 2018 and March 2022 (2018, 2019, and 2021 ADR).

IV. No Period of Ineligibility is imposed upon the Athlete.

V. All competitive results obtained by the Athlete between September 2, 2018, and May 11, 2023, are reinstated, along with all resulting titles, prizes, medals, points, rankings, and prize and appearance money.

VI. The Respondent is ordered to bear the costs of the CAS proceedings."

B. World Athletics' Submissions

70. World Athletics filed its Answer in these proceedings in which the Panel was also referred to the Answer and Reply submitted before the Disciplinary Tribunal. Its submission in relation to the merits of the appeal may be summarised as follows.

71. It is accepted by World Athletics that it bears the burden of proving, to the comfortable satisfaction of the Panel, that the Athlete is guilty of the alleged ADRV of use of a prohibited substance.

72. As explained by the Joint Expert Panel in its quantitative analysis in the First Joint Expert Opinion, "*the passport was flagged with high hemoglobin concentrations (HGB)*

in Samples 2, 15, 16 and 22 and a low HGB in Sample 26, high OFFscores in Sample 2, 15 and 16 and a low OFFscores in Sample 18, 26 and 31 as well as high reticulocyte percentage (%ret) values in Sample 18,25 and 31".

73. In its qualitative assessment of the ABP profile, the Joint Expert Panel noted several abnormal patterns, summarised below:

    a. Sample 2 (collected on 2 September 2018): displays increased HGB coupled with decreased IRF which is characteristic of the discontinued use of an ESA.

    b. Samples 15-18: several abnormal features were observed between May and August 2020. Sample 15 (27 May 2020) and Sample 16 (4 June 2020) show elevated OFF-score values both driven by high HGB and relatively low reticulocyte values. A follow up sample, Sample 17 (12 July 2020), shows much lower HGB and Sample 18 (31 August 2020) has low HGB and elevated RET% (which is typically indicative of blood loss/withdrawal).

    c. Samples 20-22: Sample 20 (3 December 2020) collected 3 days before the Valencia Half Marathon and one day after arrival at sea level shows elevated HGB. HGB remained stable in Sample 21 (14 December 2020) despite a return to altitude followed by a further increase to a very high HGB level (17.9 g/dL) in Sample 22 (20 January 2021) notwithstanding a constant altitude in the intervening period.

    d. Samples 24-25: a relatively large increase in HGB and RET% values from Sample 24 (5 June 2021) to Sample 25 (16 June 2021), a couple of days before the Kenyan Olympic Trials, indicating the use of an ESA.

    e. Samples 30-31: the large increase in RET% and a decrease in HGB values from Sample 30 (13 November 2021), collected at about 1700m above sea level, to Sample 31 (21 February 2022), collected after 44 days at 2400m, is consistent with a withdrawal of blood (likely for reinfusion).

74. As to certain explanations advanced in the Appeal Brief, the submissions advanced by World Athletics may be summarised in the following way.

75. As to the training load explanations, World Athletics relies on what is set forth in this respect in the Second Joint Expert Opinion (at page 2). For the avoidance of doubt, the provenance and accuracy of the Athlete's training logs are not accepted.

76. As to what is said by the Athlete in relation his alcohol abuse, and the private study conducted by the Athlete, World Athletics submits that no late disclosure should be permitted by the Panel and that the Panel should draw adverse inferences and/or a finding of a lack of proof of relevant alcoholism, in light of the non-provision of apparently available evidence.

77. The Athlete refers to liver damage being demonstrated by values for S-g-glutamyl transferase that date from November 2023 onwards, long after the relevant period of the

ABP samples had ended (the last ABP sample being March 2022). The Appealed Decision refers to Prof. D'Onofrio's evidence that the liver of the Athlete had been described as normal within an ultrasound sonography, and that the liver enzymes were also described as normal. The ultrasound report of 11 January 2022 states that "*the liver is normal in size with normal echogenicity. No focal parenchymal lesion seen… Conclusion: Normal abdomen scan*". It is also noted that the Athlete was seen by Dr Saha on 16 October 2023 and it was stated that "*He had no previous comorbids to suggest… liver pathology*".

78. The Athlete's private testing results are neither admissible nor persuasive. World Athletics relies on the line of case law as summarised in CAS 2023/A/9731 at para. 141. The tests are not reliable or probative, they do not follow the same requirements as the ABP Operating Guidelines, the methodology used is unclear, evidence in relation to the testing has not been disclosed, and the timing of the results post-dates the ABP.

79. As to the first report of Prof. Brandt, World Athletics makes the following submissions:

a. Prof. Brandt's opinion in his first report was that PFCP was the cause of the ABP abnormalities. This is surprising, given that it was accepted at first instance that the Athlete did not have PFCP. Prof. Brandt essentially accepts that same position when he states that "*Prof. Cermak obtained next generation sequencing… while no EPOR mutation was detected*". This is important because, as Prof. Brandt admits, "*activating EPOR mutations and deletions are disease-defining when present*". However, Prof. Brandt then focuses on two single nucleotide polymorphisms (SNPs) called JAK2 L393V and HFE H63D and suggests that they have the same effect of causing PFCP or polycythaemia. This is despite his own admission that L393V is "*of uncertain or undetermined significance (VUS)*" and that "*little is known about its effect on function*", and that it was unclear as to what effects the HFE H63D mutation might have at a genetic, physiological or molecular level.

b. Prof. Brandt's opinion is predicated upon irrelevant matters such as: (a) the Athlete's supposed HGB concentration between July and December 2024, long after the time of the ABP samples and at a time when he was fully aware of the charges against him; and (b) the lack of direct evidence for doping (which is always true of any ABP case).

c. Prof. Brandt refers to the potential for an infectious disease to have caused the Sample 16-17 changes, despite the lack of a factual basis for the Athlete contracting any specific infectious disease at the relevant time. The analysis is therefore speculation.

d. Prof. Brandt accepts that the Athlete's (alleged) diagnosis of G6PDH (i.e., glucose-6-phosphate dehydrogenase) deficiency was in a mild form. He also accepts that the Athlete had benign ethnic neutropenia.

e. The Joint Expert Panel's Fifth Joint Opinion refutes the opinions of Prof. Brandt and his explanations for the ABP abnormalities, which World Athletics adopt.

f. Furthermore, genetic explanations for ABP abnormalities have been rejected in at CAS, as any such explanation is necessarily constant throughout the life of an athlete (and thus also of their ABP) and does not explain dramatic rises and falls in certain ABP values: see, in particular CAS 2020/A/7509 at paras 176-179, 181-192.

80. By way of conclusion, World Athletics submits that the CAS Panel can be comfortably satisfied (the relevant standard of proof) that the Athlete has committed an ADRV pursuant to Rule 2.2 of the 2023 ADR, and that the sanctions imposed in the Appealed Decision were appropriate.

81. World Athletics, by its Answer, sought the following relief:

"*44. World Athletics requests that the CAS Panel grants the following relief:*

(i) The appeal of Mr Rhonex Kipruto is dismissed.

(ii) The decision of the World Athletics Disciplinary Tribunal dated 28 May 2024 in case SR/187/2023 is upheld.

(iii) Mr Rhonex Kipruto is to bear the arbitration costs of these proceedings, if any.

(iv) World Athletics is granted a significant contribution to its legal costs and expenses incurred in relation to these proceedings."

VII. JURISDICTION

82. Article R47.1 of the CAS Code provides 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.*"

83. In this case, the Athlete invokes Rule 13 of the 2023 ADR. Rule 13.2.1 provides as follows:

"*13.2.1 Appeals involving International-Level Athletes or International Competitions*

In cases involving International-Level Athletes or arising from Persons participating in an International Competition, the decision may be appealed exclusively to CAS."

84. It is common ground that the Athlete is an International-Level Athlete pursuant to the 2023 ADR and the Respondent does not dispute the jurisdiction of the CAS and confirmed it by signing the Order of Procedure.

85. The Panel therefore confirms that the CAS has jurisdiction to decide the appeal.

VIII. ADMISSIBILITY

86. Article R49 of the CAS Code provides as follows:

"*In the absence of a time limit set in the statutes or regulations of the federation, association or sports-related body concerned, or in a previous agreement, the time limit for appeal shall be twenty-one days from the receipt of the decision appealed against. The Division President shall not initiate a procedure if the statement of appeal is, on its face, late and shall so notify the person who filed the document.*"

87. Rule 13.6.1 of the 2023 ADR provides as follows:

"*13.6.1 Appeals to CAS*

(a) The time to file an appeal to the CAS will be thirty (30) days from the date of receipt of the reasoned decision by the appealing party. […]"

88. The Appealed Decision was made on 28 May 2024.

89. The Appealed Decision was received by the Athlete on 28 May 2024.

90. The appeal was submitted on 27 June 2024, within the 30-day period set by Rule 13.6.1 of the 2023 ADR.

91. The Respondent takes no issue with respect to the admissibility of the appeal.

92. In the circumstances, the Panel confirms that the appeal is timely and admissible.

IX. APPLICABLE LAW

93. Article R58 of the CAS Code provides as follows:

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

94. World Athletics relies upon Rules 13.7.4 and 13.7.5 of the 2023 ADR which provide as follows:

"*13.7.4 In all CAS appeals involving World Athletics, the CAS Panel shall be bound by the World Athletics Constitution, Rules and Regulations (including these Anti-Doping Rules). In the case of conflict between the CAS rules currently in force and the World Athletics Constitution, Rules and Regulations, the Constitution, Rules and Regulations shall take precedence.*

13.7.5 In all CAS appeals involving World Athletics, the governing law shall be Monegasque law and the appeal shall be conducted in English, unless the parties agree otherwise."

95. World Athletics submits that the Athlete was charged on 11 May 2023 for an ADRV on the basis of ABP samples collected between 9 July 2018 and 15 March 2022. The applicable rules in force at the time were the 2023 ADR effective 31 March 2023.

96. This is common ground.

97. Accordingly, the Panel will apply the 2023 ADR as the applicable regulations and will apply subsidiarily the laws of Monaco.

X. THE MERITS

98. The Panel turns to the merits. Two questions arise:

a. Has the Athlete committed an ADRV?

b. If so, what are the consequences?

A. The ADRV

99. The Athlete has been charged with a violation of Rule 2.2 of the 2023 ADR.

a. The Legal Framework

100. The relevant legal framework under the 2023 ADR with respect to the ADRV is as follows:

"***2. Anti-Doping Rule Violations***

Doping is defined as the occurrence of one or more of the violations set out in Rules 2.1 to 2.11 below.

The purpose of this Rule 2 is to specify the circumstances and conduct which constitute anti-doping rule violations. […] Athletes […] shall be responsible for knowing what constitutes an anti-doping rule violation and the substances and methods that have been included on the Prohibited List.

Each of the following constitutes an anti-doping rule violation:

[…]

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

2.2.1 It is the 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 to

demonstrate intent, Fault, Negligence or knowing Use on the Athlete's part in order to establish an anti-doping rule violation for Use of a Prohibited Substance or a Prohibited Method.

[Comment to Rule 2.2: It has always been the case that Use or Attempted Use of a Prohibited Substance or Prohibited Method may be established by any reliable means. As noted in the Comment to Rule 3.2, unlike the proof required to establish an anti-doping rule violation under Rule 2.1, Use or Attempted Use may also be established by other reliable means such as admissions by the Athlete, witness statements, documentary evidence, conclusions drawn from longitudinal profiling, including data collected as part of the Athlete Biological Passport, or other analytical information that does not otherwise satisfy all the requirements to establish the presence of a Prohibited Substance under Rule 2.1. For example, Use may be established based upon reliable analytical data from the analysis of an A Sample (without confirmation from an analysis of a B Sample) or from the analysis of a B Sample alone where the Anti-Doping Organisation provides a satisfactory explanation for the lack of confirmation in the other Sample.]

2.2.2 The success or failure of the 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.

[…]".

101. As to the burden of proof, Article 3 of the 2023 ADR provides in relevant part as follows:

"***3 Proof of Doping***

3.1. Burdens and Standards of Proof

The Integrity Unit […] will have the burden of establishing that an anti-doping rule violation has occurred. The standard of proof will be whether the Integrity Unit […] has established an anti-doping rule violation to the comfortable satisfaction of the hearing panel, bearing in mind the seriousness of the allegation that has been 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 place the burden of proof upon the Athlete […] to rebut a presumption or establish specified facts or circumstances, except as provided in Rules 3.2.3 and 3.2.4, the standard of proof will be by a balance of probability.

[Comment to Rule 3.1: This standard of proof required to be met by the Integrity Unit is comparable to the standard that is applied in most countries to cases involving professional misconduct.]

3.2. Methods of Establishing Facts and Presumptions

Facts related to anti-doping rule violations may be established by any reliable means, including admissions.

[Comment to Rule 3.2: For example, the Integrity Unit may establish an anti-doping rule violation under Rule 2.2 (Use of a Prohibited Substance or Prohibited Method) based on the Athlete's admissions, the credible testimony of third Persons, reliable documentary evidence, reliable analytical data from either an A or B Sample as provided in the comments to Rule 2.2, or conclusions drawn from the profile of a series of the Athlete's blood or urine Samples, such as data from the Athlete's Biological Passport.]

[…]".

102. It follows that the burden of proving the ADRV falls on World Athletics. It is axiomatic that, in this respect, the atypical ABP values are a necessary but not a sufficient proof of a doping violation: see e.g., CAS 2010/A/2235 at para. 35. It remains for World Athletics to prove, to the relevant standard of proof, that the evidence shows that the Athlete has committed the alleged ADRV, viz., the use of a prohibited substance or method in violation of Rule 2.2 of the 2023 ADR.

103. As was explained in CAS 2020/A/7510 at para. 98ff (and see also CAS 2011/A/2384 & 2386 at para. 252ff), the legal burden of showing (to the comfortable satisfaction of the Panel) that the Athlete has committed an ADRV remains at all times with World Athletics. It is for the Panel to assess the evidence as a whole, including the quantitative analyses provided by the Adaptive Model, the qualitative assessments on the part of the Joint Expert Panel (they being experts in the field), and the explanations (and evidential corroboration thereof, if any) on the part of the Athlete, and form a view that it is comfortably satisfied that an ADRV has taken place. However, because the Athlete is possessed of all or most of the information in relation to his physiological characteristics and habits, whilst the legal burden remains on World Athletics at all times, once the Adaptive Model triggers anomalous results then the Athlete comes under an evidential burden to offer a detailed explanation in order to show that, even if such results are consistent with an ADRV, the particular facts, matters and circumstances surrounding the results militates against a determination by the Panel that it is comfortably satisfied that an ADRV has taken place. It is sometimes said that the abnormal ABP finding creates a rebuttable presumption but that, in the Panel's view, goes too far. What it does do is impose on the Athlete the evidential burden to bring forward a plausible explanation of the ABP abnormalities that is consistent with innocence on the part of the Athlete.

104. It is also important to note also that there is a line of CAS authority that suggests that the Panel must be satisfied, on the evidence, that there is what is called a 'doping scenario' that is sufficient to support the alleged ADRV to the Panel's comfortable satisfaction. This notion has been summarised in CAS 2017/A/5045 at para. 120 as follows, which the Panel gratefully adopts:

"*This Panel understands this CAS jurisprudence to mean the following: even if all scenarios other than doping can be excluded (on a balance of probability), this does not*

suffice for the Panel to be comfortably satisfied that the Athlete committed blood manipulation. Instead, the use of a prohibited substance or method must – in addition – be a plausible and likely explanation of the values obtained for the Panel to positively assume that the Athlete doped. Such assessment must be made based on all evidence before the Panel."

105. The upshot of this is that World Athletics must produce evidence (in practice, mainly or exclusively expert evidence) that the Athlete's atypical results can be plausibly explained by the use of one or other prohibited substances or methods or a combination thereof. That is what is required to be presented as a 'doping scenario'.

b. The Evidence

106. In support of the allegation that the Athlete has committed an ADRV, World Athletics relies upon the five reports issued by the Joint Expert Panel. These have been rehearsed in some detail above.

107. As was explained by the Joint Expert Panel at the hearing, the Adaptive Model is designed to identify intra-individual longitudinal variability of (primarily) HGB and reticulocytes in the Athlete's system, and to identify the upper and lower thresholds for each particular athlete. The model calculates the likelihood that any one of the reported results falling outside these thresholds would be observed in a healthy, non-doping athlete and if that likelihood is less than 1/100 an APF is reported. Put another way, at a statistical significance of 99%, one would expect to see one abnormal result in 100 samples. Here, five reported results of the Athlete's HGB fall outside the predicted range (either above the high threshold or below the low threshold) – i.e., 5/32 or about 15.6%. That is remarkable in and of itself, as is the significant variation within the ABP for those reported results that do not breach the upper and lower thresholds. It is, said Prof. D'Onofrio, "*very unusual*" to see this ambit of variation.

108. The Joint Expert Panel gave its quantitative and qualitative assessments in relation to the Athlete's ABP. The quantitative assessment was this:

"*The passport was flagged with high hemoglobin concentrations (HGB) in Samples 2, 15, 16 and 22 and a low HGB in Sample 26, high OFF-scores in Sample 2, 15 and 16 and a [sic] low OFF-scores in Samples 18, 26 and 31 as well as high reticulocyte percentage (%ret) values in Sample 18, 25 and 31.*"

109. The Joint Expert Panel's qualitative assessment of the Athlete's ABP may be summarised in this way:

a. Sample 2 (collected on 2 September 2018): This result displays an increased HGB coupled with decreased RET% and an OFF-score of 125.01, which is high, all of which is characteristic of the discontinued use of an ESA.

b. Samples 15-18: Several abnormal features were observed between May and August 2020.

i. Sample 15 (27 May 2020) and Sample 16 (4 June 2020) show elevated OFF-score values both driven by high HGB and relatively low RET%.

ii. Sample 17 (12 July 2020), shows much lower HGB and Sample 18 (31 August 2020) has low HGB and elevated RET%, which is typically indicative of blood loss/withdrawal.

c. Samples 20-22:

i. Sample 20 (3 December 2020) was collected three days before the Valencia Half Marathon and one day after arrival at sea level. It shows elevated HGB.

ii. HGB remained stable in Sample 21 (14 December 2020) despite a return to altitude.

iii. This was followed by a further increase to a very high HGB level (17.9 g/dL) in Sample 22 (20 January 2021) notwithstanding a constant altitude in the intervening period.

d. Samples 24-25: a relatively large increase in HGB and RET% values from Sample 24 (5 June 2021) to Sample 25 (16 June 2021), a couple of days before the Kenyan Olympic Trials, indicating the use of an ESA.

e. Samples 30-31: the large increase in RET% and a decrease in HGB values from Sample 30 (13 November 2021), collected at about 1700m above sea level, to Sample 31 (21 February 2022), collected after 44 days at 2400m, is consistent with a withdrawal of blood (likely for reinfusion).

110. For the Joint Experts, upon their consideration of the totality of ABP evidence, the Athlete's blood profile was "*highly likely*" the result of blood manipulation and "*highly unlikely*" due to any other cause and that, moreover, the variations in the profile are not consistent with any recognised physiological or benign genetic profile but are typical of a doping scenario involving the suppression of erythropoiesis followed by recovery. The Joint Experts expressed that view "*with a high degree of scientific confidence*". The Joint Experts also addressed the various matters proffered by the Athlete by way of explanation of the abnormalities (and the variation) which the Panel deals with below in context.

111. The Joint Expert Panel also cross-referred the sample results in the ABP to the Athlete's competition schedule.

c. The Athlete's Explanations

112. As noted above, an ABP does not of itself justify a conclusion that an ADRV has been committed but, instead, calls for an explanation by the Athlete of the abnormalities of his profile, all the more-so because it is the Athlete, and not World Athletics, who is in possession of the relevant information that might ground an explanation.

113. It is in this context that the Panel addresses the Athlete's explanations for the abnormalities found in the samples identified by the Adaptive Model and as explained by the Joint Expert Panel. It is the Athlete's contention that these abnormalities can be explained in innocent terms and do not support the conclusion that there has been blood doping and/or manipulation on the part of the Athlete. For the Athlete, it was said that ABP flagged fluctuations in the Athlete's blood markers are explainable by a combination of genetic predispositions, training, and alcohol consumption.

114. The Athlete has, in the past, taken a number of other points in his defence which did not feature during this appeal. The Panel does not therefore consider these various other points such as the integrity and viability of some of the abnormal samples (no longer advanced) or that the abnormalities were caused by neutropenia (now agreed between the Joint Expert Panel and Prof. Brandt as "*irrelevant*") and deals only with the explanations relied upon by the Athlete before the Panel.

115. At the hearing before the Panel, the Athlete's case was put in the following way in the following steps:

a. The Athlete suffers from primary inherited erythrocytosis (or "PIE"). (For Prof. Brandt, this was the preferred description for the condition given that PFCP usually (although not, according to Prof. Brandt, necessarily) involves a mutation of the EPOR, which the Athlete did not have.) The pathogenic hallmark of PIE is hypersensitivity to EPO.

b. The Athlete also bore a genetic variant in the HFE gene, HFE H63D, which is involved in regulating iron absorption in the body.

c. The Athlete also suffered from alcohol abuse.

d. The Athlete's training regime varied throughout the period of the ABP, from altitude to sea level and from heavy training to light training to no training.

e. When acting in cooperation with other confounders – HFE H63D, alcohol abuse, training variation – the PIE, with its hypersensitivity to EPO, is more likely to be responsible for the Athlete's abnormal ABP than doping.

116. That is the explanation that the Athlete now puts forward, submitting that it amounts to a plausible explanation for the abnormal values to be found in his ABP and which, says the Athlete, is entirely consistent with innocence. According to Prof. Brandt, the Athlete's PIE, when taken together with the other confounding elements, "*was likely a major contributor to the ABP abnormalities*" in the Athlete.

117. For now, it is enough to say that the Joint Expert Panel disagreed with this view; they regarded it as a speculative hypothesis unsupported by the scientific literature and contradicted by the facts of this case.

118. It is necessary, therefore, for the Panel to address the constituent elements of the explanation now advanced by the Athlete.

119. First, the Athlete contends that he has PIE. (This was a shift for Prof. Brandt and the Athlete as his Appeal Brief and Prof. Brandt's two reports were put on the basis that the Athlete had PFCP.) There was substantial (though not universal) agreement amongst the scientists as to the diagnostic criteria for PIE, namely: (i) isolated erythrocytosis, (ii) normal HBG oxygen affinity, (iii) EPO serum levels below or in the low-normal range, and (iv) a positive family history consistent with autosomal dominant inheritance. These general requirements were set forth a paper by Bento, C., McMullin, M., Percy, M., *et al*, Primary Familial and Congenital Polycythemia (2016).

120. With respect to the first, isolated erythrocytosis, it seemed to be agreed that erythrocytosis is defined by the measurement of HGB concentration (and/or HCT) in at least two separate blood counts performed at on different occasions that are above the normal reference range adjusted for age and sex (the idea being to establish a baseline and to see whether that baseline was elevated). Prof. Brandt relied upon the World Health Organisation ("WHO") 2016 classification which put the normal level of HGB for adult men at 16.5 g/dL.

121. Prof. Brandt contended that this requirement was met by reference to the blood counts undertaken of the Athlete at the Cerba Lancet Kenya Laboratory in Eldoret, Kenya between July and December 2024. These were blood tests arranged at the request, so the Panel was told, of Prof. Brandt. These tests were said to show that the Athlete's average HGB was at 17.8 g/dL. The Athlete therefore asks the Panel to conclude that he has demonstrated isolated erythrocytosis.

122. The Panel is hesitant to do so.

    a. In the first place, there is some uncertainty about the threshold. The Panel was told that the WHO put the level at 16.5 g/dL but the paper by Benetti *et al*, Coexistence of Multiple Gene Variants in Some Patients with Erythrocytoses, 2024 – on which the Athlete otherwise relied – put the level at 18.0 g/dL. If the Benetti paper were to be preferred, then the Athlete's mean HGB of 17.7 g/dL would not be regarded as elevated and would not qualify as isolated erythrocytosis.

    b. Second, it is not at all clear to the Panel why Prof. Brandt relies for this purpose on values obtained from the Athlete in private blood tests in 2024, well after the end of the ABP values, the last of which is dated March 2022. Prof. Brandt explained to the Panel that he wished to ensure an accurate baseline reading at a time when the Athlete was neither training nor consuming alcohol, and was paying attention to his diet. That may well be so, but it begs the question as to why values within the Athlete's ABP were not deployed for this purpose. Why, for example, was it not possible to use the values for Samples 4-10, taken in the period from November 2018 through October 2019? On their face, these values show a steady period for the Athlete, and one might think would well reflect the Athlete's steady-state baseline HGB concentration. The mean for these values is 16.1 g/dL, well under the threshold for elevated HGB on any view. This was a question which Prof. Brandt was unable to answer.

c. Third, as is now well-established, reliance on private blood tests is problematic: see, e.g., CAS 2023/A/9731 at para. 141. The sample analyses that find their way into the ABP are, of course, collected and analysed in controlled conditions. That may or may not be the case for private tests, especially where, as here, the tests are not anonymous and are performed for the specific purpose of bolstering a defence. It is obvious that such tests are susceptible to manipulation and that a Panel should exercise great caution before placing any probative weight on them.

123. The second requirement to be satisfied for there to be a diagnosis of PIE is normal oxygen affinity. There appears to be no question that this was met.

124. The third requirement relates to EPO serum levels. With erythrocytosis, the serum EPO levels are low to low-normal reflecting the feedback inhibition of EPO synthesis in the kidney. The third requirement for a diagnosis is therefore an EPO serum concentration below or at the normal range. For this purpose, Prof. Brandt relied on two readings for the Athlete's serum levels: (a) 14 February 2024 in the Czech Republic which showed a serum EPO level of 3.2 IU/L; and (b) 22 July 2024 in Kenya with a result of 6.9 IU/L, which were low and low-normal, respectively.

125. In this context, Dr Lewis pointed out that the first test was obviously done at sea level, and that that when an altitude resident, such as the Athlete, comes down to sea level the serum EPO is suppressed. For this reason, she considered it was not safe to rely on this test result in support of a finding of erythrocytosis, citing a paper by Prommer *et al*, Total Hemoglobin Mass and Blood Volume of Elite Kenyan Runners, 2010 which showed that the serum levels for Kenyan athletes coming to sea levels was depressed. This was put to Prof. Brandt in cross-examination, and he was asked whether he had taken this into account and whether he maintained his reliance on this sea level sample. He said that he agreed that there was some suppression of EPO serum when a highlander comes to sea level, but that the requirement was simply for two readings of low or low-normal serum level, which was satisfied here.

126. Prof. Brandt's response was certainly correct as far as it went, but there does seem to be a measure of uncertainty about the first sample and whether it accurately reflected the Athlete's EPO serum levels – and whether, as a consequence, the third requirement has been met.

127. The fourth requirement for a diagnosis of PIE is that there is a family history consistent with autosomal dominant inheritance. For this purpose, the Athlete relied upon the tests performed by Prof. Ĉermák on the Athlete's father and uncles, which tests showed that each of them bore the JAK2 L393V variant.

128. The difficulty with this is that, as the Joint Expert Panel pointed out, merely identifying JAK2 L393V in the Athlete's father and uncles does not automatically establish PIE. As the Joint Expert Panel told the Panel, this requirement is about inheritance of a pathogenic phenotype, not merely sharing a genetic variant and there is no evidence before the Panel that the father and uncles suffer from erythrocytosis.

129. On balance, therefore, the Panel is of the view that the diagnostic requirements have not been made out and that, diagnostically, the Athlete has not shown that he suffers from the genetic condition called PIE.

130. Even if that were not right, there was considerable debate amongst the scientists as to the functionality of PIE and whether, as Prof. Brandt maintained, it caused or contributed to EPO hypersensitivity. For the Joint Expert Panel this overstated the state of the science in that there is no reliable scientific basis to conclude that PIE with JAK2 L393V confers EPO hypersensitivity. EPO hypersensitivity is classically associated with germline EPOR mutations, which impair the receptor's negative regulatory domain and result in prolonged signalling at normal or low EPO levels. JAK2 sits downstream of the EPO receptor, and pathogenic JAK2 mutations that are known to affect erythropoiesis (such as V617F) do so by independent activation rather than by increasing sensitivity to circulating EPO. L393V is not an established activating mutation and is frequently classified as a variant of uncertain significance (or VUS), with no robust functional data demonstrating enhanced EPO-mediated signalling. Moreover, and in any event, if there were such functionality, it would present as consistently elevated across the longitudinal time period of the ABP – which is plainly not the case with the Athlete's ABP.

131. In the face of this scientific debate and uncertainty, the Panel concludes that it cannot safely be inferred that JAK2 L393V produces EPO hypersensitivity capable of explaining abnormal erythropoietic dynamics, and for this reason concludes that the mere presence of the variant JAK2 L393V in the Athlete does not provide a plausible explanation for the ABP abnormalities.

132. The Athlete next relies upon the fact that he also has an HFE mutation, HFE 63D. For context, the HFE gene helps regulate how much iron is absorbed from the intestine. It interacts with the transferrin receptor and with hepcidin (which is the key hormone controlling iron balance in the body) and when HFE function is altered, iron regulation can be affected. HFE H63D is a missense variant where histidine (H) is replaced by aspartic acid (D). It is associated with haemochromatosis, a genetic disorder causing excess iron absorption and progressive iron overload. The other more frequent and more clinically consequential HFE variation is C282Y, in which cysteine is replaced by tyrosine.

133. It was Prof. Brandt's opinion that, when acting in cooperation with PIE, the HFE H63D mutation complements or heightens the Athlete's hypersensitivity to EPO. It was said that PIE enhances EPO responsiveness of the Athlete and thereby increases erythroid biomarkers and magnifies ABP variability.

134. By contrast, the Joint Expert Panel was of the view that, while HFE H63D is associated with hemochromatosis, its impact on HGB levels is statistically insignificant and clinically irrelevant. It was explained that, while haemochromatosis may cause mildly elevated HGB levels in some individuals, it does not cause hypersensitivity to EPO or erythrocytosis. It was said further that it is a common polymorphism and that its co-presence with other gene variants is more likely coincidental than functionally significant.

135. Prof. Brandt's riposte was that the combined presence of both HFE 63D and JAK2 L393V was rare. He also pointed to a study where, as he put it, it was established that one or both of these HFE mutations "*frequently co-occur*" with diver mutations in PFCP.

136. The study relied upon by Prof. Brandt (itself described as a preliminary study) did indeed identify, out of the 22 patients in the study, that 12 had the HFE H63D mutation, two had the C282Y mutation and the rest a wild type HFE gene. The patients had normal EPO levels and either high HGB or RBC counts. The conclusion of the study, however, was that it seemed that, in those patients with the HFE H63D mutation, more iron was consumed for the RBC production, but the explanation for this "*was still missing*", and that the "*role of H63D mutation in this process should still be clarified*". This may be interesting, but it is hardly settled science and hardly provides support for the contention advanced by the Athlete that the combination of JAK2 L393V with HFE H63D gives rise to enhanced sensitivity to EPO.

137. The next element in the Athlete's explanation is his history of alcohol abuse. As before, it is said by Prof. Brandt that this factor, either acting alone or with PIE, may enhance the Athlete's sensitivity to EPO and may thus provide some explanation for the ABP abnormalities. In this respect, it was contended by the Athlete that when a person consumes alcohol for several days his or her HBG concentration might drop and when that consumption ends the RBC production rebounds which is manifested by relatively high RET%.

138. The starting point in this context is the Athlete's witness statement, dated 2 December 2024, in which the Athlete speaks to his record of alcohol consumption. He said as follows:

    a. He was born in 1999.

    b. His parents are or were alcoholics.

    c. In 2017-2018, he was consuming alcohol in moderation, but this was before he started training seriously as an athlete.

    d. He joined St Patricks during the second half of 2018.

    e. During the COVID lockdown, he started "*abusing alcohol*".

    f. He took part in an alcohol study in order to show the effects of alcohol on haemoglobin levels.

139. The statement therefore takes matters not very far at all. The alcohol study to which the Athlete referred in his statement is a study conducted in the period August to October 2023. It sought to draw conclusions about the relationship between alcohol consumption and HGB concentrations. The study was described by Mr Nekrashevich in his report dated 7 January 2024 (referred to above). It is enough, however, to say that the study was not relied upon, and Mr Nekrashevich was not called as a witness. It is also apparent

that a study conducted well after the date of the last sample in the ABP, i.e., 15 March 2022, provides little explanation for the abnormal values found in the Athlete's ABP.

140. In his Appeal Brief, the Athlete reserved the right to adduce further evidence as to his drinking habits. Such evidence was, however, never forthcoming.

141. The Athlete did speak to his alcohol consumption during his testimony before the Panel but, once again, this did not take matters very far. He said that he did not drink whilst in training, nor when travelling to competitions, nor during competitions. And when asked as to his drinking habits, he gave the rather vague and unsatisfactory response of "*you will have to ask my lawyer*". He did say that he drank 'Smirnoff Ice', which is a lightly-carbonated ready-to-drink malt beverage with an alcohol by volume ("ABV") of approximately 4%, and that, when he drank, he drank six of these at a time. But it is difficult for the Panel to draw any inference or conclusion from this evidence as to the effect of that drinking on his blood profile, and impossible to say whether his drinking had any causal or correlative relationship with his abnormal ABP.

142. It was said further (in submissions) by the Athlete that the Athlete's alcohol abuse can be demonstrated by reference to the EtG found in Athlete's urine samples and that the patterns show escalating abuse; viz., in 2018 and 2019, two out of the 10 samples contained EtG while in 2020 seven out of the 10 samples contained EtG, with 5 samples containing significant values; in 2021 there were four out of nine samples with EtG, with three samples containing significant values; and in 2022 there were two out of five samples containing EtG, both with significant values. This trend is certainly true, but it does not, of itself, provide any basis for concluding that his alcohol consumption played any role in his abnormal ABP.

143. In any event, as explained by the Joint Experts, EtG is a metabolite of ethanol and when ethanol is broken down in the liver a small fraction is conjugated to form EtG and it thus provides an indication of alcohol consumption (and perhaps its timing if one assumes orderly elimination). It is measured in ng/mL and, according to Dr Brandt, any value less than 100 ng/mL is "*irrelevant*", by which he was understood to mean that any value under that threshold is usually a negative indication of alcohol consumption. Save for a single result, which itself was at the relevance threshold of 100 ng/mL, all the reported results through the period of the ABP were either no alcohol consumption at all or significantly below that threshold. Moreover, for some of the samples that the ABP highlighted as abnormal (e.g., samples 2 and 15) the EtG result was no value at all.

144. On top of all this, the central thesis of this line of argument on the part of the Athlete was that alcohol abuse caused dehydration which caused a decrease in plasma volume and an increase in HGB concentration, thereby explaining the elevated HGB values in the passport. But, on this score, the Panel was told by the Joint Experts that the effect of alcohol on the proliferation and differentiation of RBC has not been clearly documented. The Joint Experts said that studies have shown that neither acute nor chronic studies have shown that alcohol intoxication results in fluid and electrolyte depletion in the absence of vomiting or diarrhoea, with acute or chronic alcohol actually resulting in an

increase in plasma volume and thus a decrease in HGB concentration – i.e., the very opposite of the high HGB that is to be observed in the Athlete's ABP.

145. In the result, the Panel rejects the submission on the part of the Athlete that the abnormalities in his ABP Passport can be explained – in whole or in part, in causation or in contribution – by the Athlete's alcohol abuse problem.

146. The next element for consideration is the Athlete's training regimen. It was said, as has been described above, that the Athlete consistently engaged in altitude training and that altitude exposure induces an increase in RBC mass and HBG concentration, as the body responds to reduced oxygen availability at higher elevations. This had the physiological effect of elevating the Athlete's HBG levels. It was said as well that, on detraining, the Athlete's naturally high HGB levels reduced and that the variation in the ABP Passport is attributable to this training program.

147. Dr Lewis is an exercise physiologist and is eminently qualified to speak on this issue (she has an undergraduate degree in Sport and Exercise Science and a Ph.D. in Exercise Sports Physiology). Indeed, Prof. Brandt (who, it must be said, is a highly qualified and eminent haematologist) readily and rightly conceded that she had far more experience on this issue than him. Dr Lewis explained that the Athlete is an altitude resident (he resides at 2,000-2,500m asl). She explained that changes in training load will bring about changes in HBG concentrations in that high training may cause plasma volume expansion and with it a relative reduction in HGB concentration, and the obverse for light/ low training periods. She also said that the beauty of the Adaptive Model is that it will adapt to the limits of the individual athlete. For a high-altitude resident, therefore, the first few samples may show high HGB levels but then those levels will adapt and move higher, with allowance being made for the particular individual. She said that what one would expect to see therefore for the Athlete was an elevated HGB level with a measure of consistency across the period of the passport – but that here the Athlete's ABP showed great variability, with significant peaks and valleys. She said that altitude would lead to gradual HBG elevation but not abrupt OFF-Score peaks or RET suppression, as can be seen with the Athlete's ABP Passport.

148. As to the effect on particular abnormal samples, Dr Lewis (and the Joint Expert Panel) noted as follows:

a. For Sample 2, it was said by the Athlete that the elevated HBG (of 17.8) was attributable to a reduction in training volume. But the prior sample, Sample 1, occurred prior to the Athlete's high volume training period (from 30 July to 20 August 2018) and it produced a lower HGB than Sample 2. It is unlikely therefore that the baseline HGB during a period of reduced training is as high as that reported for Sample 2.

b. For Samples 15 and 16, it was said once again that these elevated HGB values (17.7 and 17.8, respectively) were due to the reduced training during COVID, police training, and a bout of alcohol consumption. But even if inconsistent training contributed to an increase in HGB concentration, it could not explain the Athlete's extreme variations.

149. Prof. Brandt took a different view. He said that the variation in the Athlete's ABP Passport could be explained by "seasonal variation" brought about by changes in training and competition, which brought about changes in RBC mass and volume shifts that contribute to variation in RBC markers. However, he conceded that, despite expressing this view, he had not reviewed the Athlete's training logs but had simply relied on what he was told by the Athlete's counsel and trainer. He did not, in any event, condescend to any particular detail about the training, and was not able to say whether any particular abnormality was attributable to an increased training load or a decreased training load, and if so, which.

150. In the Panel's view, there is no doubt that seasonal variation can affect HBG concentration through plasma volume shifts and training load changes. Seasonal fluctuations in HBG concentration are well-recognised in endurance sports and typically reflect modest plasma volume shifts associated with changes in training load, heat exposure and/or competition cycles. Such effects are gradual, cyclical and of limited magnitude. They do not produce abrupt, statistically extreme deviations from an athlete's established longitudinal range, nor do they generate coordinated HGB–reticulocyte interactions of the type observed here. The Adaptive Model underpinning the ABP is specifically designed to accommodate normal intra-individual variability, including seasonal physiology. The fact that the sequence here nevertheless exceeded the individualised limits to a level associated with an exceptionally low probability of innocent origin demonstrates, in the Panel's view, that the variations cannot be explained by ordinary seasonal fluctuation.

151. Accordingly, drawing the various threads together, the Panel concludes as follows:

a. The Athlete's ABP is highly irregular, with significant variations between the upper and lower parameters as well as five incursions through those parameters. The statistical probability of those five events being purely by chance (at the 99% confidence level) is approximately 1 in 10 billion. Prof. Brandt often said that the cooperative effect of the PIE and the other confounders but, as Dr Lewis remarked, the Athlete's ABP variability is anything but subtle.

b. The Panel does not accept the explanation advanced by the Athlete with respect to the abnormalities in his ABP. The explanation, in the Panel's view, is built upon too many layers of uncertainty and, in the end, remains a speculative hypothesis put forward by Prof. Brandt. In the Panel's view, it does not rise to the level of a plausible explanation and does not meet the Athlete's evidential burden in the face of the various (5/32) aberrant ABP values.

152. As for the doping scenario, this has been amply demonstrated by the confluence of the abnormalities and the competitions. The Panel notes in this respect as follows:

a. Sample 2 was collected on 2 September 2018, six days before the Prague 10k. It displays a high HGB in tandem with a decreased immature reticulocyte fraction indicating erythropoietic suppression.

b. Sample 20 was collected on 3 December 2020, shortly after arrival at sea level and three days before the Valencia Half Marathon. It shows elevated HGB.

c. Samples 24 and 25 were taken on 5 and 16 June 2021, respectively, in advance of the Kenyan Olympic trials which took place from 17-19 June 2021. Sample 26 in particular shows elevated HBG and elevated RET.

153. The confluence of abnormal values and competitions is obvious, and so the Panel is satisfied that there is here a doping scenario that supports the ABP abnormalities.

154. In the result, the Panel is of the view that World Athletics has discharged its burden of showing that the Athlete has committed the ADRV as alleged.

B. The Consequences

155. In light of the Panel's conclusion as to the commission of an ADRV, it is necessary to consider the consequences that follow. By the Appealed Decision, the World Athletics Disciplinary Tribunal imposed an overall period of ineligibility of six years, made up of four years for an intentional ADRV plus two years by way of aggravation.

a. The Legal Framework

156. The legal framework with respect to the consequences is set forth in the 2023 ADR in relevant part as follows:

> "***9. Automatic Disqualification of Individual Results***
>
> *An anti-doping rule violation in connection with an In-Competition test automatically leads to Disqualification of the Athlete's individual's result obtained in that Event, with all resulting consequences, including forfeiture of any medals, titles, awards, points and prize and appearance moneys. In addition, further results obtained by the Athlete in other Events may be Disqualified, in accordance with Rule 10.1 (same Competition) and/or Rule 10.10 (subsequent Competitions).*
>
> ***10. Further Sanctions on Individuals***
>
> ***10.1 Disqualification of individual results in the Competition during or in connection with which an Anti-Doping Rule Violation occurs***
>
> *10.1.1 Subject to Rule 10.1.2, an anti-doping rule violation occurring during or in connection with a Competition shall lead to Disqualification of all the Athlete's individual results obtained in that Competition, with all resulting consequences for the Athlete, including forfeiture of any medals, titles, awards, points and prize and appearance money.*
>
> *10.1.2 If the Athlete establishes that they bear No Fault or Negligence for the anti-doping rule violation, the Athlete's individual results obtained in other Events shall not be Disqualified unless the Integrity Unit establishes that the Athlete's results in the other Event(s) were likely to have been affected by their anti-doping rule violation.*

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

The period of Ineligibility for a violation of Rule 2.1, Rule 2.2, or Rule 2.6 will be as follows, subject to potential elimination, reduction or suspension pursuant to Rules 10.5, 10.6 and/or 10.7:

10.2.1. Save where Rule 10.2.4 applies, the period of Ineligibility will be four years where:

> *(a) The anti-doping rule violation does not involve a Specified Substance or a Specified Method unless the Athlete […] can establish that the anti-doping rule violation was not intentional.*
>
> *(b) The anti-doping rule violation involves a Specified Substance or a Specified Method and the Integrity Unit can establish that the anti-doping rule violation was intentional.*

10.2.2. If Rule 10.2.1 does not apply, then (subject to Rule 10.2.4(a)), the period of Ineligibility will be two years.

10.2.3. As used in Rule 10.2, the term 'intentional' is meant to identify those Athletes or other Persons who engage 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 will be rebuttably presumed to be not 'intentional' if the substance is a Specified Substance and the Athlete can establish that the Prohibited Substance was used Out-of-Competition. An anti-doping rule violation resulting from an Adverse Analytical Finding for a substance that is only prohibited In-Competition will not be considered 'intentional' if the substance is not a Specified Substance and the Athlete can establish that the Prohibited Substance was Used Out-of-Competition in a context unrelated to sport performance.

[Comment to Rule 10.2.3: Rule 10.2.3 provides a special definition of 'intentional' that is to be applied solely for purposes of Rule 10.2. Beyond Rule 10.2, the term 'intentional' as used in these Rules means that the person intended to commit the act(s) based on which the Anti-Doping Rule Violation is asserted, regardless of whether the person knew that such act(s) constituted an anti-doping rule violation.]

[…]

10.4 Aggravating Circumstances that may increase the period of Ineligibility

If the Integrity Unit or other prosecuting authority establishes in an individual case involving an anti-doping rule violation other than violations under Rule 2.7 (Trafficking or Attempted Trafficking), Rule 2.8 (Administration or Attempted Administration), Rule 2.9 (Complicity or Attempted Complicity) or Rule 2.11 (Acts by an Athlete or other

Person to discourage or retaliate against reporting) that Aggravating Circumstances are present which justify the imposition of a period of Ineligibility greater than the standard sanction, then the period of Ineligibility otherwise applicable will be increased by an additional period of Ineligibility of up to two (2) years depending on the seriousness of the violation and the nature of the Aggravating Circumstances, unless the Athlete or other Person can establish that they did not knowingly commit the anti-doping rule violation.

[Comment to Rule 10.4: Violations under Rules 2.7, 2.8, 2.9, and 2.11 are not included in the application of Rule 10.4 because the sanctions for these violations already build in sufficient discretion up to a lifetime ban to allow consideration of any Aggravating Circumstance.]

[…]

10.10. Disqualification of results in Competition subsequent to Sample collection or commission of an anti-doping rule violation

In addition to an automatic Disqualification of results achieved in the Competition that produced the positive Sample under Rule 9, all other competitive results obtained by the Athlete from the date a positive Sample was collected […] or other anti-doping rule violation occurred through the commencement of any Provisional Suspension or Ineligibility period, will, unless fairness requires otherwise, be Disqualified with all of the resulting Consequences, including forfeiture of any medals, titles, points, prize money, and prizes.

[…]

10.13. Commencement of the Ineligibility period

Where an Athlete is already serving a period of Ineligibility for an anti-doping rule violation, any new period of Ineligibility will commence on the first day after the current period of Ineligibility has been served. Otherwise, except as provided below, the period of Ineligibility will start on the date of the decision of the hearing panel providing for Ineligibility or, if the hearing is waived or there is no hearing, on the date Ineligibility is accepted or otherwise imposed.

10.13.1 Delays not attributable to the Athlete or other Person

Where there have been substantial delays in the hearing process or other aspects of Doping Control, and the Athlete or other Person can establish that such delays are not attributable to him/her, the body imposing the sanction may start the period of Ineligibility at an earlier date commencing as early as the date of Sample collection or the date on which another anti-doping rule violation last occurred. All competitive results achieved during the period of Ineligibility, including retroactive Ineligibility, will be Disqualified.

[Comment to Rule 10.13.1: In cases of anti-doping rule violations other than under Rule 2.1, the time required for an Anti-Doping Organisation to discover and develop facts sufficient to establish an antidoping rule violation may be lengthy, particularly where the Athlete or other Person has taken affirmative action to avoid detection. In these circumstances, the flexibility provided in this Rule to start the sanction at an earlier date should not be used.]

10.13.2 Credit for Provisional Suspension or period of Ineligibility served:

(a) If a Provisional Suspension is respected by the Athlete or other Person, then the Athlete or other Person will receive a credit for such period of Provisional Suspension against any period of Ineligibility that may ultimately be imposed. If the Athlete or other Person does not respect a Provisional Suspension, they will receive no credit for any period of Provisional Suspension served. If a period of Ineligibility is served pursuant to a decision that is subsequently appealed, the Athlete or other Person will receive a credit for such period of Ineligibility served against any period of Ineligibility that may ultimately be imposed on appeal.

(b) If an Athlete or other Person voluntarily accepts a Provisional Suspension in writing from the Integrity Unit and thereafter respects the Provisional Suspension, the Athlete or other Person will receive a credit for such period of voluntary Provisional Suspension against any period of Ineligibility that may ultimately be imposed. A copy of the Athlete or other Person's voluntary acceptance of a Provisional Suspension will be provided promptly to each party entitled to receive notice of an asserted anti-doping rule violation under Rule 14.1.

[Comment to Rule 10.13.2(b): An Athlete's voluntary acceptance of a Provisional Suspension is not an admission by the Athlete and may not be used in any way as to draw an adverse inference against the Athlete.]

(c) No credit against a period of Ineligibility will be given for any time period before the effective date of the Provisional Suspension or voluntary Provisional Suspension, regardless of whether the Athlete elected not to compete or was suspended by a team.

[…]

***Aggravating Circumstances**: Circumstances involving, or actions by, an Athlete or other Person that may justify the imposition of a period of Ineligibility greater than the standard sanction. Such circumstances and actions include, but are not limited to: the Athlete or other Person Used or Possessed multiple Prohibited Substances or Prohibited Methods, Used or Possessed a Prohibited Substance or Prohibited Method on multiple occasions or committed multiple other anti-doping rule violations; a normal individual would be likely to enjoy the performance-enhancing effects of the anti-doping rule violation(s) beyond the otherwise applicable period of Ineligibility; the Athlete or other Person engaged in deceptive or obstructive conduct to avoid the detection or adjudication of an anti-doping rule violation; or the Athlete or other Person engaged in Tampering during Results Management. For the avoidance of doubt, the examples of circumstances and conduct described herein are not exclusive and other similar*

circumstances or conduct may also justify the imposition of a longer period of Ineligibility. […]".

i. Period of Ineligibility

157. This appeal is not concerned with a Specified Substance. It follows that, according to Rule 10.2.1 of the 2023 ADR, a violation of Rule 2.2 leads to a period of ineligibility of four years unless the Athlete is able to establish that the ADRV was not intentional.

158. As a starting point, it is uncontroversial that, in all but the most exceptional circumstances, blood manipulation is an intentional form of doping. It is, as World Athletics submitted, a sophisticated form of doping and will not in the ordinary run of things happen by negligence: see also CAS/O/5822 at para.163. That being so, the Athlete has not discharged his burden in this respect, and the starting period of ineligibility must be four years. Moreover, because the ADRV is to be characterised as intentional there is no scope for the application of those provisions relating to the elimination or reduction of the period of ineligibility upon an assessment of the Athlete's level of fault.

159. It is next necessary to consider whether there are aggravating circumstances here so as to warrant an additional period of ineligibility (of up to two years).

160. In this respect, World Athletics (by way of adoption of its submissions before the Disciplinary Tribunal) submitted that there were aggravating circumstances here, namely (a) several instances of blood doping identified in the Athlete's ABP, (b) the fact that rEPO can only be taken by injection, and is thus difficult to detect, (c) which shows that the Athlete engaged in a deliberate and sophisticated doping regime, and (d) the Athlete's blood doping observed around Sample 25 (16 June 2021) was targeted to assist the Athlete in qualifying for the rescheduled Tokyo 2020 Olympic Games. For his part, the Athlete did not address this issue; that was not the defence he ran, instead focussing on the question of liability.

161. The World Athletics Disciplinary Tribunal took the view that these matters constitute aggravating circumstances warranting a further two-year period of ineligibility.

162. There is a conceptual difficulty with respect to aggravating circumstances with an ADRV for blood doping cases such as this in that, if aggravation were presumed in all blood manipulation cases, then the four-year baseline period would become meaningless. The aggravating circumstance must therefore be something over and above the commission of the ADRV itself. It follows that: (a) the fact that blood manipulation is inherently sophisticated does not automatically constitute aggravation; (b) the statistical extremity of an ABP profile does not by itself amount to aggravating circumstances; (c) concealment (or difficulty of detection) will not ordinarily, of itself, amount to aggravation in that there is a measure of concealment (or difficulty of detection) in all doping cases; and (d) duration alone is not automatically aggravating unless it is linked to organised or systemic conduct.

163. Having said that, in this case, the Athlete's ABP profile does show several instances of blood doping, which demonstrates that the Athlete has indeed used a prohibited method "*on multiple occasions*" as is expressly set forth as an aggravating circumstance in the definition within the 2023 ADR (as set out above). That being so, the Panel agrees that this amounts to an aggravating circumstance which "*justif[ies] the imposition of a period of Ineligibility greater than the standard sanction"* (as per Article 10.4 of the 2023 ADR).

164. As to the length of that additional period of ineligibility, Article 10.4 of the 2023 ADR goes on to provide that the base period of ineligibility is to be increased "*by an additional period of Ineligibility of up to two (2) years depending on the seriousness of the violation and the nature of the Aggravating Circumstances".*

165. In the Panel's view, bearing in mind the seriousness of the violation and the nature of the aggravating circumstance just described, and bearing in mind the principle of proportionality, the aggravating circumstance warrants a further period of ineligibility of 12 months. In that respect, the Panel differs, with respect, from the Disciplinary Tribunal.

ii. Disqualification

166. The World Athletics Disciplinary Tribunal also took the view that the Athlete's results should be disqualified as from 2 September 2018 (being the date of collection of Sample 2) to 11 May 2023 (the date of his Provisional Suspension).

167. The Panel also agrees.

XI. CONCLUSION

168. In all, therefore, the Panel concludes as follows:

a. As to liability, the Panel is comfortably satisfied that the Athlete has committed an ADRV in breach of Article 2.2 of the 2023 ADR.

b. As to sanction:

i. A period of ineligibility shall be imposed on the Athlete of five years.

ii. The Athlete's results from 2 September 2018 to 11 May 2023 are disqualified.

XII. COSTS

(…)

ON THESE GROUNDS

The Court of Arbitration for Sport hereby rules that:

1. The appeal filed by Rhonex Kipruto on 27 June 2024 against World Athletics with respect to the decision of the World Athletics Disciplinary Tribunal dated 28 May 2024 succeeds in part.

2. The decision of the World Athletics Disciplinary Tribunal dated 28 May 2024 is hereby confirmed in all respects, save that a period of ineligibility of five (5) years is imposed upon the Athlete for the Anti-Doping Rule Violation, commencing on the date of the Disciplinary Tribunal's Award.

3. (…).

4. (…).

5. All other and further motions or prayers for relief are dismissed.

Seat of arbitration: Lausanne, Switzerland
Date: 16 April 2026

THE COURT OF ARBITRATION FOR SPORT

James Drake
President of the Panel

André Brantjes
Arbitrator

Luigi Fumagalli
Arbitrator