CAS 2023/A/9681 Mario Seidl v. Österreichischer Skiverband (ÖSV) & NADA Austria & WADA

ARBITRAL AWARD

delivered by the

COURT OF ARBITRATION FOR SPORT

sitting in the following composition

Sole Arbitrator: Ms Annett Rombach, Attorney-at-Law, Frankfurt am Main, Germany

in the arbitration between

Mr Mario Seidl, St. Leonhard – Grödig, Austria

Represented by Mr Christian Keidel and Ms Franziska Wittersheim of Lentze Stopper Rechtsanwälte, Munich, Germany

Appellant

and

Österreichischer Skiverband (ÖSV), Innsbruck, Austria

First Respondent

National Anti-Doping Agency of Austria (NADA Austria), Vienna, Austria

Represented by Dr Stephan Netzle and Dr Mirjam Koller of Times Attorney AG, Zurich, Switzerland

Second Respondent

World Anti-Doping Agency (WADA), Montreal, Canada

Represented by Mr Ross Wenzel, WADA General Counsel, and Messrs Nicolas Zbinden and Michael Kottman of Kellerhals Carrard, Lausanne, Switzerland

Third Respondent

I. THE PARTIES

1. Mr Mario Seidl (the "Athlete" or the "Appellant") is a 32-year-old Austrian skier specializing in the Nordic Combination.

2. The Österreichischer Skiverband ("ÖSV" or the "First Respondent") is the competent national sports federation governing, *inter alia*, ski and snowboard sports as well as Nordic Combined. It is a member of the International Ski and Snowboard Federation (the "FIS").

3. The National Anti-Doping Agency of Austria ("NADA Austria" or the "Second Respondent") is the national anti-doping organization for the country of Austria, which regulates the prevention and fight against doping in sport.

4. The World Anti-Doping Agency ("WADA" or the "Third Respondent") is a private law foundation constituted under Swiss law in 1999 to promote and coordinate at international level the fight against doping in sport on the basis of the World Anti-Doping Code (the "WADC" or the "Code"). WADA has its registered seat in Lausanne, Switzerland, and its headquarters in Montreal, Canada.

5. The First Respondent, the Second Respondent, and the Third Respondent are collectively referred to as the "Respondents". The Appellant and the Respondents are collectively referred to as the "Parties".

II. FACTUAL BACKGROUND

6. Below is a summary of the main relevant facts and allegations based on the Parties' written submissions, pleadings and evidence adduced during these proceedings. Additional facts and allegations may be set out, where relevant, in connection with the legal discussion that follows. Although the Sole Arbitrator has considered all the facts, allegations, legal arguments and evidence submitted by the Parties in the present proceedings, this award (the "Award") refers only to the submissions and evidence considered necessary to explain its reasoning.

7. The Athlete challenges a decision issued by the Independent Arbitration Commission (Unabhängige Schiedskommission, the "USK") notified to him by e-mail on 11 May 2023 (the "Appealed Decision"). The Appealed Decision confirmed an earlier decision rendered by the Austrian Anti-Doping Legal Commission (Österreichische Anti-Doping Rechtskommission, the "ÖADR"), which imposed disciplinary sanctions against the Athlete (including, inter alia, a period of ineligibility of four years) for an alleged anti-doping rule violation (the "ADRV"). The factual background underlying the Appealed Decision can be summarized as follows:

A. Factual Background

8. As a member of the National Testing Pool in Austria, the Athlete, since at least 2016, was subject to the testing system of the Athlete Biological Passport ("ABP"). The

fundamental principle of the ABP is to monitor selected biological variables over time that indirectly reveal the effects of doping, rather than attempting to detect the doping substance or method itself.

9. The Athlete has been charged with violating Article 2.2 of the FIS Anti-Doping Rules (version 2016; the "FIS ADR"): "Use or Attempted Use by an Athlete of a Prohibited Substance or a Prohibited Method", based on an allegedly abnormal blood profile in 2016-17 and 2019. The evidence of the Athlete's alleged ADRV in the matter at hand is based on a longitudinal analysis of his ABP.

10. Between 4 July 2013 and 19 December 2019, more than 40 blood samples were collected from the Athlete, as provided infra at para. 12 of this Award. Samples 19, 24 and 27 were deemed invalid and have not been considered for the analysis of the Athlete's blood profile. The Athlete has been further challenging (including during these CAS proceedings) the validity of Samples 21 and 22, on which the Second Respondent's ADRV case against the Athlete (partially) rests. The relevant background of sample collection for these samples is the following:

- Sample 21 was collected in Ruka, Finland, in the morning of 24 November 2016 (at 8:49 am), under sample number 226880. In the evening of the same day, the sample was handed over, in a cooling box together with other samples, to Dr Kirchbichler of PWC, who stored the box at his hotel room until the next morning, when Sample 21 was scheduled to be sent by plane to the doping laboratory in Helsinki for analysis. In the morning of 25 November 2016, before the samples were prepared for transportation to the laboratory, the staff noticed that the temperature data logger was defective and had not recorded the temperature in the box. A new temperature logger was placed into the box. The service provider responsible for conducting the doping control, stated that *"[i]t seems that there was a mistake with the data entry on the Chain of Custody."* It is undisputed that the temperature at which Sample 21 was stored had not been recorded for approximately 24 hours after sample collection. Nevertheless, Sample 21 was accepted for analysis by the doping laboratory.

- Sample 22 was collected on 4 January 2017, at 6:32 am, under sample number 194073. The storage temperature for Sample 22 remained unrecorded for the first two hours, until the temperature logger started recording at appr. 8:32 am. Furthermore, the temperature data logger recorded an alarm for a duration of 7 hours 33 minutes, during which the storage temperature for Sample 22 was above 12.0°C, with a maximum temperature during this period of 15.1°C. Nevertheless, Sample 22 was accepted for analysis by the doping laboratory.

11. The WADA-accredited Athlete Passport Management Unit ("APMU") in Seibersdorf, Austria (which operates under the supervision of NADA Austria), analysed the Athlete's samples (including Samples 21 and 22) using the Adaptive Model, a statistical model that calculates whether the reported HGB (hemoglobin concentration), RET% (percentage of immature red blood cells – reticulocytes) and OFF-score (a combination of HGB and RET%) values fall within an athlete's expected distribution.

12. The registered values for HGB, RET% and OFF-score in the Athlete's respective samples were as follows (with the allegedly abnormal values being highlighted in yellow):

No.	Date of Sample	HGB (g/dL)	RET%	OFF-score
1	4 July 2013	14.5	0.71	94.44
2	12 September 2013	15.0	0.62	102.76
3	30 October 2013	15.6	0.98	96.60
4	19 November 2013	15.8	1.03	97.10
5	28 November 2013	15.4	0.94	96.00
6	16 January 2014	15.0	0.85	94.68
7	26 March 2014	15.7	0.55	112.50
8	5 June 2014	14.7	0.00	90.00
9	7 August 2014	14.4	0.73	92.74
10	15 October 2014	14.0	0.80	86.33
11	28 April 2015	14.9	1.06	87.23
12	2 July 2015	15.5	0.83	100.34
13	3 September 2015	14.9	0.79	96.00
14	1 October 2015	14.7	0.92	89.45
15	24 November 2015	15.8	0.87	102.04
16	17 December 2015	15.2	0.75	100.04
17	28 January 2016	15.9	0.84	104.01
18	7 September 2016	15.5	0.96	96.21
19	5 October 2016	15.1	0.90	94.08
20	6 October 2016	15.1	1.12	88.00
21	24 November 2016	16.3	0.62	115.80
22	4 January 2017	16.8	0.88	111.72
23	20 January 2017	16.2	1.26	94.70
24	18 February 2017	14.2	0.76	89.69
25	22 February 2017	14.8	0.82	93.70
26	29 May 2017	14.7	1.06	85.23
27	7 August 2017	14.3	0.78	90.01
28	13 September 2017	14.8	0.68	98.52

29	11 October 2017	15.4	0.87	98.04
30	22 November 2017	15.1	0.74	99.40
31	25 January 2018	15.3	0.96	94.00
32	12 July 2018	14.0	0.97	80.91
33	22 November 2018	15.3	0.70	102.80
34	20 December 2018	14.0	0.93	82.14
35	19 February 2019	14.3	1.48	70.01
36	25 February 2019	14.7	1.30	78.59
37	13 March 2019	15.7	1.15	92.66
38	1 April 2019	15.2	1.25	84.92
39	28 April 2019	16.3	0.92	105.45
40	17 July 2019	14.8	1.18	82.82
41	25 November 2019	15.4	1.66	76.70
42	10 December 2019	15.8	1.99	73.36

13. Upon the APMU's request, the Athlete's ABP was submitted to a panel of experts for review on an anonymous basis. The expert panel was comprised of three experts: Mr Ozren Jaksic, Ms Laura Garvican, Mr Jakob Mørkeberg (collectively the "Expert Panel").

14. The Expert Panel examined the Athlete's ABP (which was identified by the code BPZ235Q37) and produced a joint opinion dated 28 November 2019 (the "1st Joint Expert Opinion"). The Expert Panel noted that there were several "abnormalities" at 99.00% specificity and concluded that the likelihood that these abnormalities were the result of blood manipulation was high. The two main abnormalities were observed in Samples 20-23, collected between 6 October 2016 and 20 January 2017 (also referred to as the "2016-17 Sample Series"), and Samples 35-37, collected between 19 February 2019 and 13 March 2019 (also referred to as the "2019 Sample Series"). In relevant part, the 1st Joint Expert Opinion concluded the following:

> *"In the automated analysis by the adaptive model, which determines whether fluctuations in the biomarkers of the Athlete Biological Passport are within the expected individual reference ranges for an athlete or not, the profile was flagged with a hemoglobin concentration (Hb) in sample 22 exceeding the upper 99% specificity level, and with a high percentage of reticulocytes (%ret) and low OFFscore in Sample 35 exceeding the upper and lower 99% specificity level, respectively.*
>
> […]

Quality of hematological laboratory results

All samples were scrutinized for their analytical details outlined in the LDPs and CAs. In the available documentation, there is no indication that any analytical or pre-analytical issues might have influenced the results in a way that would explain the abnormalities in the profile or alter the analytical data to disadvantage the athlete. The observation and hematological assessment of instrument reports, available for all valid samples, and quality of control data, recorded in the LDPs, confirms the absence of pre-analytical interferences, good analytical performance and inter-laboratory comparability of results.

Conclusion

Based on these facts and the information available to date, it is our opinion that, in the absence of an appropriate explanation, the likelihood of the abnormalities described above in the profile BPZ235Q37 being due to blood manipulation, namely the artificial increase of red cell mass using for example erythropoiesis stimulating substances, is high. On the contrary, the likelihood of environmental factors or a medical condition causing the described pattern is very low."

15. On 9 and 15 January 2020, the Appellant had himself examined at the Innsbruck University Hospital (Tyrol Clinics), where it was concluded that "[i]t seems possible that these fluctuations are triggered in the context of infections".

16. On 7 January 2020, the Second Respondent transmitted the 1st Joint Expert Opinion to the Appellant and invited him to provide comments.

17. On 10 February 2020, the Appellant submitted his comments, complaining, inter alia, that the ABP package, on which the 1st Joint Expert Opinion relied, included a wrong competition calendar not belonging to the Athlete. The Appellant also provided an expert opinion by Prof Günther Weiss (the "1st Weiss Opinion"), which concluded that the abnormalities in the Athlete's blood profile identified in the 1st Joint Expert Opinion can be explained by the Athlete's suffering from hypogammaglobulinemia ("HG") - a disease characterized by a lack of immunoglobulin and resulting higher frequency of infections. The 1st Weiss Opinion was forwarded to the Expert Panel, which, on 3 March 2020, rejected Prof Weiss' explanations and confirmed the results of the 1st Joint Expert Opinion (the "2nd Joint Expert Opinion"):

"In our joint expert opinion dated 28th of November 2019, we describe the main abnormalities to be the increase in Hb from Sample 20 to 21 and the continued elevated Hb levels in Samples 22 and 23, as well as the elevated %ret values in Samples 35-37. The elevated Hb pattern in Samples 21-23 is not followed by an increased erythropoiesis compatible with the condition explained by Dr. Weiss.

Additionally, the white blood cell counts in these samples as well as all other samples collected from the athlete are low and as such do not indicate infections at any time. Additionally, a urine sample was collected in the morning at 6.00 am together with ABP blood sample 22 (which shows the highest Hb of the profile; 16.8

g/dL). In this urine sample the specific gravity was 1.005, which indicates a very dilute urine in the morning and therefore contradicts the hypothesis that the elevated Hb in this sample, should be due to haemoconcentration. On the contrary such dilute morning urines are highly abnormal and could be the result of an attempted hyperhydration practice, to mask haematological effects of previous blood doping.

Furthermore, the elevated %ret values in Samples 35-37 are not affiliated with any indication of anaemia, since all markers (Hb, MCH and MCHC) are within the normal range for a male athlete in general and for this athlete in particular."

18. On 12 May 2020, the Second Respondent forwarded the ABP documentation package to the Athlete and invited him to comment on the 2nd Joint Expert Opinion.

19. On 7 July 2020, the Athlete provided his comments, insisting on the argument that the changes in his blood values were not the result of illicit blood manipulation, but rather an increased number of infections caused by the alleged HG disease. With his comments, the Athlete included new expert opinions by Prof Weiss (the "2nd Weiss Opinion"), Prof Joris Delanghe and Dr Douwe de Bour. These expert opinions were submitted to the Expert Panel for its consideration.

20. On 10 September 2020, the Expert Panel released its third opinion (the "3rd Joint Expert Opinion"), confirming its initial opinion, and stating that it "find[s] it highly unlikely that the profile is the result of a medical condition or any other confounding factor".

21. On 18 September 2020, the criminal proceedings previously initiated against the Athlete were closed without results, as no evidence of doping practices could be found.

22. On 25 March 2021, the Second Respondent opened disciplinary proceedings against the Athlete before the ÖADR.

23. On 4 July 2022, the ÖADR rendered its decision (the "ÖADR Decision"), in which the Athlete was found to have committed an ADRV, resulting, inter alia, in a period of ineligibility of four years and a disqualification of all competitive results from 6 October 2016 (including forfeiture of any titles, awards, medals, profits, prizes, and appearance money).

24. On 20 February 2023, the Appellant submitted to a lie detector in which he stated never to have doped.

25. On 2 May 2023, Prof Weiss issued a medical report in which he confirmed the Athlete's HG diagnosis, based on his examination of the patient (the "Weiss Medical Report").

B. Proceedings Before the USK

26. The Athlete appealed the ÖADR Decision to the USK within the applicable time limit. The USK rendered the Appealed Decision, which largely confirmed the ÖADR Decision, on 28 April 2023. The operative part of the Appealed Decision reads as

follows:

> *"1. Die von der Österreichischen Anti-Doping Rechtskommission (ÖADR) für den Österreichischen Schiverband (ÖSV) verhängte Sperre des Mario SEIDL für alle nationalen und internationalen Wettkämpfe (aller Sportarten) für vier Jahre, wird bestätigt.*
>
> *Die Sperre beginnt am 28.11.2019 und endet am 27.11.2023. Alle während der Sperre erzielten Wettkampfergebnisse werden disqualifiziert/annulliert.*
>
> *2. Die Annullierung aller von 06.10.2016 bis 23.06.2022 erzielten Wettkampfergebnisse samt Aberkennung aller von 06.10.2016 bis 23.06.2022 erlangten oder zustehenden Titel, Medaillen, Preise, Start- und Preisgelder gemäß Spruchpunkt 2.a. des Beschlusses der ÖADR vom 04.07.2022 wird aufgehoben und durch die Annullierung aller von 06.10.2016 bis 18.02.2017 sowie von 19.02.2019 bis 01.04.2019 erzielten Wettkampfergebnisse samt Aberkennung aller von 06.10.2016 bis 18.02.2017 sowie von 19.02.2019 bis 01.04.2019 erlangten oder zustehenden Titel, Medaillen, Preise, Start- und Preisgelder ersetzt."*
>
> Convenience translation:
>
> *"1. The suspension of Mario Seidl from all national and international competitions (of all sports) for four years imposed by the Austrian Anti-Doping Legal Commission (ÖADR) is confirmed.*
>
> *The ban starts on 28.11.2019 and end* (sic) *on 27.11.2023. All competition results achieved during the ban will be disqualified/cancelled.*
>
> *2. The annulment of all competition results achieved from 06.10.2016 to 23.06.2022 including the disqualification of all titles, medals, prizes, starting and prize money obtained or due from 06.10.2016 to 23.06.2022 according to point 2.a. of the decision of the ÖADR of 04.07.2022 is annulled and replaced by the annulment of all titles, medals, prizes, starting and prize money obtained or due from 06.10.2016 to 18.02.2017 and from 19.02.2019 to 01.04.2019."*

27. The reasoning of the Appealed Decision can be summarized as follows:

- The applicable anti-doping rules are the FIS Anti-Doping Rules in their 2016 version (the "2016 FIS ADR");
- NADA Austria has the burden of proof to demonstrate that the Athlete committed an ADRV. The applicable standard of proof is that of "comfortable satisfaction". Proof of an ADRV can be based on "any reliable means", including the Athlete's ABP;
- The USK is not called to challenge the ABP system as such. In accordance with

constant CAS jurisprudence, its role is confined to an assessment of the plausibility of the Expert Panel's findings. If it finds the Expert Panel's conclusions plausible, it is for the Athlete to demonstrate, on the balance of probabilities (at least 51%), that the abnormal blood values are not caused by blood manipulation.

- Based on the evidence before it, the USK concluded that the 1st Joint Expert Opinion, the 2nd Joint Expert Opinion and the 3rd Joint Expert Opinion (the "Joint Expert Opinions") were plausible in finding that the Athlete's abnormal blood profile was likely the result of blood manipulation. Conversely, it did not find the Athlete's alternative explanation of his HG disease (and resulting frequency of infections) to be a plausible scenario for the abnormal blood values.

III. THE PROCEEDINGS BEFORE THE COURT OF ARBITRATION FOR SPORT

28. On 26 May 2023, the Appellant filed his Statement of Appeal with the Court of Arbitration for Sport (the "CAS") against the Appealed Decision, pursuant to Articles R47 et seq. of the Code of Sports-related Arbitration (the "CAS Code"). The Appellant requested the appointment of a sole arbitrator in accordance with Article R48 of the CAS Code. The Appellant proposed the appointment of Mr Jeffrey G. Benz, attorney-at-law in London, United Kingdom to be nominated as a sole arbitrator. The Appellant also requested an extension of his time limit to file his Appeal Brief until 10 July 2023.

29. On 7 June 2023, the First Respondent informed the CAS Court Office that it did not intend to take an active part in the Appeal proceedings, but that it reserved its right to contribute to the case whenever it deemed actions to be necessary.

30. On 9 June 2023, the Second Respondent submitted its comments on the composition of the panel and agreed with the Appellant that the case should be heard by a sole arbitrator, to be appointed by the President of the CAS Appeals Division, in accordance with Articles R54 (1) and (3) of the CAS Code.

31. Through correspondence of the same day, WADA applied to participate as a party in the appeal proceedings (the "Intervention Request") in accordance with Articles R41.3 and R54 of the CAS Code. The CAS Court Office invited the other Parties to comment on WADA's Intervention Request by no later than 19 June 2023. The Appellant provided his comments on 16 June 2023 (agreeing to WADA's requested intervention), while the First and the Second Respondents remained silent. Following the expiry of the time limit for comments, the CAS Court Office submitted WADA's Intervention Request to the President of the CAS Appeals Arbitration Division (or her Deputy), for a decision on WADA's participation.

32. On 29 June 2023, the CAS Court Office informed the Parties, on behalf of the President of the CAS Appeals Arbitration Division, that WADA's Intervention Request had been granted. WADA was invited to comment within five (5) days on the composition of the panel.

33. On 4 July 2023, WADA informed the CAS Court Office of its agreement to submit the

Appeal to a sole arbitrator, provided that the sole arbitrator be appointed in accordance with the CAS Code.

34. On 24 July 2023, the Appellant filed his Appeal Brief within the previously extended time limit.

35. On 23 August 2023, pursuant to Article R54 of the CAS Code, and on behalf of the Deputy President of the CAS Appeals Arbitration Division, the CAS Court Office informed the Parties that the panel appointed to decide the present matter was constituted as follows:

Sole Arbitrator: Ms Annett Rombach, Attorney-at-law, Frankfurt am Main, Germany

36. On 6 October 2023, the First Respondent filed its Answer. On the same day the Second and the Third Respondent submitted a challenge of the CAS' jurisdiction and requested the bifurcation of the proceedings.

37. On 9 October 2023, the CAS Court Office invited the other Parties to comment on both the request for bifurcation and the jurisdictional challenge. The Appellant filed his respective comments on 19 October 2023 (the "Response on Jurisdiction"), in which he, inter alia, agreed to a bifurcation of the proceedings.

38. On 20 October 2023, the CAS Court Office informed the Parties of the Sole Arbitrator's decision to bifurcate the proceedings and to issue a separate Award on Jurisdiction. The further proceedings relating to the jurisdictional phase are described, in detail, in the Arbitral Award on Jurisdiction (the "Award on Jurisdiction") rendered by the CAS on 22 April 2024. In the Award on Jurisdiction, the Sole Arbitrator found that the CAS has jurisdiction to hear the Appeal brought by the Appellant.

39. On 22 April 2024, the Second Respondent and the Third Respondent were invited to submit their respective Answers within twenty (20) days.

40. On 12 May 2024, the Second Respondent filed its Answer.

41. On 3 June 2024 (within the extended time limit), the Third Respondent filed its Answer.

42. On 24 June 2024, the CAS Court Office informed the Parties that the Sole Arbitrator had decided to hold a hearing, following respective requests lodged by the Appellant and the Second and the Third Respondents.

43. On 23 July 2024, further to the Parties' submissions on their respective availabilities, and on behalf of the Sole Arbitrator, the CAS Court Office informed the Parties that the hearing would be held on 20 and 21 November 2024 in Lausanne. In the same procedural order, the Parties were informed that the Sole Arbitrator had decided to hold a case management conference (the "CMC").

44. On 29 July 2024, the CMC was held via videoconference.

45. On 22 August 2024, the CAS Court Office transmitted the Order of Procedure to the Parties, who subsequently returned duly signed copies.

46. On 21 November 2024, a hearing was held at the CAS headquarters in Lausanne, Switzerland. In addition to the Sole Arbitrator and Dr Björn Hessert, CAS Counsel, the following persons attended the hearing:

For the Appellant:	Mr Mario Seidl, Athlete Dr Christian Keidel, Legal Counsel (remotely) Ms Franziska Wittersheim, Legal Counsel Mr Mahammad Safarli, Legal Counsel (remotely) Ms Victoria Seidl, Observer Mr Hartwig Winkler, Observer
For the First Respondent:	Mr Fabian Larcher, Legal Counsel, ÖSV
For the Second Respondent:	Dr Stephan Netzle, Legal Counsel Mr Alexander Sammer, Head Legal & Investigation, NADA Austria Mr Dario Campara, Legal Associate, NADA Austria
For the Third Respondent:	Mr Nicolas Zbinden, Legal Counsel Mr Michael Kottmann, Legal Counsel Mr Ross Wenzel, WADA General Counsel

47. The following persons were heard as witnesses and experts, in order of appearance:

Mr Mario Seidl, Athlete

Mr Jochen Strobl, former Endurance Coach of the Athlete, Witness called by the Appellant

Dr Alexander Kirchbichler, Expert Witness called by the Second Respondent (testifying remotely)

Dr Günter Gmeiner, Expert Witness called by the Second Respondent

Prof Günther Weiss, Medical Expert, witness called by the Appellant (testifying remotely)

Prof Jürgen Ruland, Medical Expert, witness called by the Appellant (testifying remotely)

Dr Stefan Hainzl, Team Doctor of the Austrian Nordic combination team, witness called by the Appellant (testifying remotely)

Prof Joerg Seebach, Expert Witness called by the Second Respondent (testifying remotely)

Dr Laura Lewis Garvican, Expert Witness called by the

Second Respondent (testifying remotely)

Prof Giuseppe d'Onofrio, Expert Witness called by the Third Respondent (testifying remotely)

48. At the outset of the hearing, the Parties confirmed that they had no objections as to the constitution and composition of the panel. Afterwards, the Parties were given the opportunity to present their cases, to make their submissions and arguments and to answer questions posed by the Sole Arbitrator. The witnesses and experts were questioned by the Parties and the Sole Arbitrator.

49. After the Parties' final and closing submissions and the Athlete's last word, the hearing was closed, and the Sole Arbitrator reserved her detailed decision for this written Award. At the end of the hearing, the Parties expressly confirmed that they had no objections in relation to their respective rights to be heard and that they had been treated equally in these arbitration proceedings.

50. In reaching the present decision, the Sole Arbitrator has carefully taken into account all the evidence and the arguments presented by the Parties, even if they have not been summarised in the present Award. The Parties were afforded full opportunity to present their case, submit their arguments and answer the questions posed by the Sole Arbitrator.

IV. THE POSITIONS OF THE PARTIES

51. The following outline of the Parties' positions is illustrative only and does not necessarily comprise every submission advanced by the Parties. The Sole Arbitrator confirms, however, that she has carefully considered all the submissions made by the Parties, whether or not there is specific reference to them in the following summary.

A. The Appellant's Position and Request for Relief

52. The Appellant submits the following in substance:

On the validity of Samples 21 and 22:

- Samples 21 and 22 should not have been accepted for analysis as the respective temperatures during storage and transport were not duly logged. The temperature of Sample 22 exceeded the permitted maximum temperature of 12 degrees Celsius for 7 hours and 33 minutes. Fluctuations (particularly increased temperatures) can have a significant effect on reticulocyte and haemoglobin values. Therefore, the data on which NADA Austria relies is in itself not reliable.

- The deviation from the temperature ranges permitted by the applicable regulations can be taken as the cause for the abnormal blood values with a high degree of probability and leads – contrary to the opinion of the Expert Panel – to Samples 21 and 22 not being fit for analysis. The Respondents failed to meet their burden to establish that the departure from the WADA International Standards did not

cause the abnormal blood values.

On medical explanations for the allegedly abnormal blood values:

- The Appellant has never engaged in blood doping. He has never tested positive.
- The reason for the Athlete's abnormal blood values in the 2016-17 and 2019 Sample Series' is his HG disease, and the fact that, as a result of this disease, he is more vulnerable to (severe) infections. Due to the HG disease, the Athlete suffered from infections more often and more severely compared to his teammates. Not all of the infections are documented because the Athlete did not always visit the team doctor, who did not have his practice in close proximity to him.
- During the collection of Sample 22, the Athlete had a high fever and was very exhausted. The dilution of his urine stems from the high quantity of liquids the Athlete had been consuming to fight his flu.
- The blood values in Sample 23 likely reflect physiological regulation caused by the infection the Appellant has been suffering from since the beginning of January 2017.
- The blood values found in the 2019 Sample Series are the result of physiological regulation caused by infections and the knee injury the Appellant had sustained in March 2019.
- The Expert Panel has not adequately considered the Appellant's medical evidence. The key issue is not the frequency of infections but that the documented infections corresponding to the 2016-17 and 2019 Sample Series caused the changes in the Athlete's blood values.
- CRP (C-reactive protein) levels are not necessarily elevated during viral infections, contradicting any claims that the absence of elevated CRP disproves the presence of an infection. Similarly, normal iron levels do not reliably indicate the absence of inflammation leading to increased hemoglobin concentration. Unlike other markers, iron status can change rapidly.
- HG is associated with a higher susceptibility to viral infections, not just bacterial infections, as seen in many patients. Scientific findings on the HG disease confirm a statistically significant clustering of susceptibility to infections.

Increased haematopoiesis triggered by regenerative erythropoiesis has prolonged effects on blood values. According to the findings of infectiology, suppressed erythropoiesis is not always accompanied by anaemia.

Further submissions:

- None of the experts constituting the Expert Panel are infectiologists or immunologists, unlike Prof Weiss, the expert retained by the Athlete. The Expert Panel also based its conclusions on a wrong competition calendar belonging to

another athlete.

- The ABP is not, of itself, sufficient to establish an ADRV, it is also a matter for the interpretation of the ABP by experts. As the Appellant's experts confirm, the Appellant's medical condition constitutes a plausible explanation for the irregularities in his blood profile.
- A polygraph test confirms that the Appellant never knowingly doped.

53. The Appellant requests the following relief:

"1. The Appeal is upheld.

2. The decision rendered by USK on behalf of the First Respondent dated 28 April 2023 is set aside.

3. To confirm that the Appellant did not violate the applicable anti-doping rules violation and that therefore no consequences can be imposed.

4. To order the Respondents to pay the entire costs of the present arbitration, if any.

5. To order the Respondents to pay a contribution to the legal fees and other expenses of the Appellant."

B. The First Respondent's Position and Request for Relief

54. The First Respondent, while attending the CMC and the oral hearing, made no substantive submissions in the present proceedings and did not actively participate in them. The First Respondent made comments in respect of the costs of the proceedings as follows:

"25. The First Respondent takes into account the "Prayers for Relief" by the Appellant, in particular what regards the payment of the entire costs of the present arbitration and the payment of a contribution to the legal fees and other expenses of the Appellant by the Respondents.

26. Based on the explanations above and the ÖSV-statement, the First Respondent requests the Sole Arbitrator to take into account the special position of the Austrian Ski Federation when the Sole Arbitrator will decide on costs."

C. The Second Respondent's Position and Request for Relief

55. The Second Respondent submits the following in substance:

On the validity of Samples 21 and 22:

- While the Second Respondent does not dispute that there were gaps in the temperature monitoring of Samples 21 and 22, these gaps did not cause the

abnormalities in the samples. Not only must there be a plausible causal link between the departure from the WADA International Standard for Testing and Investigation ("ISTI") and the abnormalities in the ABP, but the Athlete must also adduce cogent evidence of supporting facts which demonstrate that it is more likely than not that the deviation from the International Standards caused the abnormalities, which the Athlete failed to do.

- The only document attempting to prove that the temperature issue for Sample 21 caused the abnormality in the ABP is an expert opinion of Prof Ruland, which remains, however, very general and only mentions the possibility that blood values may change under extreme conditions (particularly when the temperature is above room temperature). Prof Ruland does not address the specific case at all. He does not say under which conditions or at which temperatures the present abnormality would be expected.

- There is no indication that Sample 21, despite the failure to monitor the storage temperature for approximately 24 hours, was exposed to extreme temperatures. The sample remained in a cooling box the whole time, and was in Dr Kirchbichler's hotel room overnight, before a new temperature logger was placed in the box for the transport to the laboratory.

- As for Sample 22, the Athlete also failed to demonstrate that the unknown temperature for two hours and the fact that the temperature was over 12°C for 7 hours and 33 minutes caused the abnormality in the Athlete's ABP. To the contrary, Prof Ruland confirmed that a storage at room temperature (between 20°C and 25°C) is acceptable for several hours. The highest measured temperature was 15.1°C. The 2017 WADA ISTI (applicable at the time of the collection of Sample 22), does not provide a specific upper temperature limit beyond which the blood sample is invalid. Blood samples stored at 12°C have shown satisfactory stability for up to 72 hours. The short time in which the Sample 22 was stored between 12°C and 15,1°C does not affect the stability of the sample.

On the Athlete's medical explanations for the abnormal blood values:

- The timing of the Athlete's abnormal blood values is highly suspicious. The first abnormality, recorded in the 2016-17 Sample Series, occurred shortly before the FIS Nordic World Ski Championships 2017. The second abnormality, recorded in the 2019 Sample Series, was detected just before the FIS Nordic World Ski Championships 2019.

- The allegedly high number of infections does not explain the detected abnormalities in the Athlete's ABP. Specifically, they do not explain why the abnormalities only occurred twice and not more often, when the Athlete was suffering from infections all the time.

- The Second Respondent has significant doubts regarding the severity of the Athlete's alleged HG disease. Not a single symptom typically associated with HG was observed in the Athlete's case. Over a period of nine years, the Athlete experienced only five infections. Generally, heightened vulnerability to infections is characterized by approximately 4-5 respiratory infections annually or over a two-year span, or by multiple infections requiring antibiotic treatment within a single year.

- The Athlete's medical history reveals that none of his infections required antibiotic treatment, nor were there any serious bacterial infections or cases of pneumonia, nor was he ever hospitalized. Moreover, medical reports explicitly state that no substitution therapy, let alone treatment, for HG is necessary. Additionally, Dr Hainzl, the Athlete's team doctor, confirmed that HG was never specifically investigated, as hardly any abnormalities were detected in the Athlete's health.

- The Athlete was not diagnosed with HG until after being notified of the Adverse Analytical Finding, despite severe cases of HG typically being identified in childhood. Following the diagnosis, the Athlete did not receive any medical treatment aimed at preventing infections.

- The Expert Panel also clarified that the Athlete is not suffering from severe HG. Furthermore, it was confirmed by Prof Seebach that severe HG necessitates repeated antibiotic treatments and is incompatible with top-level sports due to the impact of severe infections.

- The Appellant provided no evidence which proves severe HG. The medical reports clearly show that the Athlete suffered only from minor infections, which did not require treatment with antibiotics or hospitalisation.

- Prof Delanghe, Dr de Boer, Prof Ruland, and Prof Datz – experts presented by the Athlete – accepted the claim that the Athlete suffers from HG as an established fact, without conducting their own independent analysis.

- Aside from the fact that the existence of the alleged HG is highly questionable, the Appellant has failed to demonstrate that he suffered from more infections than would be expected for someone without HG. But even if the Athlete's argument regarding minor, undocumented infections were accepted (which is not the case), it must be noted that winter sports athletes are naturally exposed to more extreme environmental conditions than their summer counterparts. As a result, mild respiratory illnesses are more common but do not lead to a higher incidence of HG in the general population. This view is further supported by the Athlete's expert, Prof Weiss, who noted that the Athlete's infections primarily occurred during the cold season.

- The Expert Panel concluded that the documentation of only two non-severe infections over a two-year period (January 2017 and January 2019) is insufficient evidence to demonstrate an increased susceptibility to infections. Additionally, apart from the illness in January 2019, there is no indication that the Athlete suffered from bacterial infections.

- The Athlete's primary argument – that severe infections caused by HG led to the abnormalities in the Athlete's ABP – must be rejected. The expert opinions submitted by the Athlete do not state that the infections "facilitated" by HG caused the abnormalities in the ABP. None of the medical experts – neither the Athlete's nor the Second Respondent's – ascribe more than a mere possibility to the theory that HG led to increased exposure to infections which in turn caused the abnormal blood values. Given the insufficient evidence and the lack of a solid causal link, this theory fails to meet the required standard of proof and must therefore be dismissed.

- Furthermore, if the fact that winter athletes are naturally more susceptible to infection had not already been incorporated into the ABP profile system, abnormal blood passport values would have to be detected on a regular basis, which is, however, not the case.

- The Athlete's argument that the abnormalities in the ABP were caused by two severe infections – one in late 2016/early 2017 and one in January 2019 – fails to align with the timeline of the sample collection. Three of the four suspicious samples were taken before the alleged infections were detected, and there is no evidence of a severe infection that would be necessary, according to the Appellant, to cause changes in the ABP values. Furthermore, assuming the validity of Prof Weiss's theory, which suggests that infections lead to changes in iron metabolism and post-infection erythropoiesis, such reactions only occur after the infection has concluded. The primary abnormality in the 2016-2017 Sample Series occurred well before the alleged infection. In the 2019 Sample Series, the infection the Athlete claims to have had was not severe enough to explain the abnormal blood values taken one to two months later. Additionally, the Athlete achieved his career's biggest success, winning the World Cup in Chaux-Neuve, on the same day the alleged severe infection began.

Further submissions:

- Longstanding CAS jurisprudence establishes that the absence of a positive doping test does not prove the absence of doping.

- According to established CAS jurisprudence, polygraph tests carry very limited evidentiary value. In this case, their probative value is even further diminished, as the Respondents were unable to attend and observe the test, the expert who administered it could not be questioned or cross-examined by the Respondents,

and the questions posed to the Athlete were legal in nature.

- Under the FIS ADR, no performance enhancing effect is required for an ADRV to be established.

- Since the Appellant has not admitted to any wrongdoing and blood manipulation can only be carried out intentionally, the Second Respondent asserts that no grounds for reducing the otherwise applicable sanction exist, and therefore, the Appellant should be sanctioned with a four-year period of ineligibility.

56. The Second Respondent requests the following relief:

"(1) to dismiss the appeal of the Athlete and confirm the decision under appeal;

(2) to confirm that a period of ineligibility of four years shall apply to the Athlete, beginning on 28 November 2019 and ending on 27 November 2023 and that the Athlete shall be disqualified with all the resulting consequences including forfeiture of any medals, points and prizes within the following periods: during the four-year ban, between 6 October 2016 and 18 February 2017 as well as between 19 February 2019 and 1 April 2019.

(3) to order that the Athlete shall bear the costs of these arbitration proceedings in its entirety;

(4) to order the Athlete to reimburse the Second Respondent's legal fees and other expenses related to the present arbitration and the proceedings before the ÖADR and the USK. The Second Respondent thereby reserves the right to submit its cost statement shortly after the hearing."

D. The Third Respondent's Position and Request for Relief

57. The Third Respondent submits the following in substance:

On the validity of Samples 21 and 22:

- According to Article C.2.1.4 (Departure from *WADA Athlete Biological Passport* requirements) of Annex C to the International Standard for Results Management 2023 ("ISRM") *"[a] Marker result which is not affected by the non-conformity can still be considered in the Adaptive Model calculations"*.

On the Athlete's medical explanations for the abnormal blood values:

- The Expert Panel, after reviewing the medical opinions provided by the Athlete, concluded that there is no basis to support the claim that the Athlete suffers from significant HG.

- There is no evidence of increased susceptibility to infections, and in any case, the documented infections cannot explain the elevated HGB values observed in the

Sample Series 2016/17, nor the lower HGB values in the Sample Series 2019.

- The laboratory results show no indication of anaemia, and the advanced theory of regenerative erythropoiesis lacks any supporting data. There was never any condition of anaemia that would have triggered a response from the erythropoietic system.
- From a haematological perspective, none of the arguments presented by the Athlete's experts adequately explain the abnormalities in the Athlete's ABP.
- The Athlete claims that HG increases his susceptibility to infections but provides no evidence of repeated infections. The few infections documented are consistent with the typical risks faced by winter sports athletes, who are more prone to infections due to the extreme environmental conditions they endure.
- In accordance with the ABP Guidelines, each member of the Expert Panel independently reviewed the Athlete's anonymized ABP Blood Profile and each concluded that the abnormalities in the profile are likely the result of doping.
- The Athlete's ABP Blood Profile constitutes clear and reliable evidence of blood doping. The profile is manifestly abnormal from a quantitative perspective, and the explanations put forward by the Athlete fail to account for these variations.

Further submissions:

- It is well settled in cases heard by CAS that the ABP model is a reliable mean of establishing blood doping.
- The Athlete's ADRV rightly triggered a four-year period of ineligibility under Article 10.2.1 of the FIS ADR as it was intentional and involved the use of either non-specified prohibited substances or prohibited methods.

58. The Third Respondent requests the following relief:

"1. The appeal filed by Mr. Mario Seidl is dismissed.

2. The decision of the Austrian Independent Arbitration Commission (Unabhängige Schiedskommission, "USK"), dated 28 April 2023, in the matter of Mr. Mario Seidl, is confirmed.

3. The arbitration costs shall be borne by Mr. Mario Seidl.

4. WADA is granted a significant contribution to its legal and other costs."

V. JURISDICTION

59. Article R47 para. 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."

60. For the reasons elaborated in detail in the Award on Jurisdiction, the CAS has jurisdiction to hear the present Appeal.

VI. ADMISSIBILITY

61. The Statement of Appeal is admissible as it complies with all the requirements set forth by Article R47 of the CAS Code. Its admissibility has not been contested by any of the Parties.

VII. OTHER PROCEDURAL ISSUES

62. The Appellant requested that the Doping Control Officer who collected Sample 22 from him on 4 January 2017, Mr Karl Glas, be released by the Second Respondent from his confidentiality obligation to testify on the Athlete's medical condition during sample collection (the "Release Request"). The Second Respondent objected to the Release Request.

63. The Sole Arbitrator dismissed the Appellant's Release Request for lack of relevance of Mr Glas's testimony. It is uncontested that the Athlete was sick on 4 January 2017, when Sample 22 was collected. What is contested is the scientific impact of the Athlete's disease on the blood parameters found in that sample. However, Mr Glas cannot testify on this question.

VIII. APPLICABLE LAW

64. Article R58 of the CAS Code states as follows:

"Law Applicable to the Merits

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 the reasons for its decision."

65. The "*applicable regulations*" for the purposes of Article R58 of the CAS Code are those contained in the FIS ADR because the Appeal is directed against a decision which was passed applying the FIS ADR. Subsidiarily, the law of Austria applies in case of a *lacuna* in the FIS ADR, as the USK is domiciled in Austria.

IX. MERITS

66. Considering all Parties' submissions, and after the oral hearing, the main issues to be resolved by the Sole Arbitrator are the following:

A. Did the Athlete commit an anti-doping rule violation?

B. If question A. is answered in the affirmative, what is the appropriate sanction to be imposed on the Athlete?

A. Did the Athlete Commit an Anti-Doping Rule Violation?

67. Based on the expert evidence submitted, inter alia, by the Expert Panel, NADA Austria has charged the Athlete with an ADRV under Article 2.2 of the FIS ADR, on the basis of two abnormalities in his ABP, relating to the 2016-17 Sample Series and the 2019 Sample Series.

68. The Expert Panel concluded that the Athlete's ABP evidenced an artificial increase of red cell mass, which was likely triggered by substances stimulating erythropoiesis, i.e. by prohibited blood manipulation. It considered the likelihood of environmental factors or a medical condition causing the described pattern to be "very low".

Conversely, the Athlete argues that his blood pattern evidenced in the 2016-17 and 2019 Sample Series' is the result of his HG disease, more specifically the numerous infections triggered by such condition.

1. Burden, Standard and Means of Proof

69. According to Article 3.1 of the FIS ADR:

> *"FIS and its National Ski Associations* [including NADA Austria] *shall have the burden of establishing that an anti-doping rule violation has occurred. The standard of proof shall be whether FIS or its National Ski Association has established an anti-doping rule violation to the comfortable satisfaction of the hearing panel bearing in mind the seriousness of the allegation which is made. This standard of proof in all cases is greater than a mere balance of probability but less than proof beyond a reasonable doubt. Where these Anti-Doping Rules place the burden of proof upon the Athlete or other Person alleged to have committed an anti-doping rule violation to rebut a presumption or establish specified facts or circumstances, the standard of proof shall be by a balance of probability."*

70. Pursuant to this rule, NADA Austria has the burden to prove that an ADRV has occurred, to the comfortable satisfaction of the Sole Arbitrator. If the Sole Arbitrator is comfortably satisfied that NADA Austria's evidence demonstrates that the Athlete committed an ADRV, the burden shifts to the Athlete to show, on the balance of probability, that he did not commit an ADRV.

71. Regarding the methods of establishing facts and presumptions, Article 3.2 of the FIS

ADR provides that:

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

72. The Comment to Article 3.2 of the FIS ADR further clarifies that:

> *"*[f]*or example, FIS or its National Ski Association may establish an anti-doping rule violation under Article 2.2 based on the Athlete's admissions, the credible testimony of third Persons, reliable documentary evidence, reliable analytical data from either an A or B Sample as provided in the Comments to Article 2.2,* ***or conclusions drawn from the profile of a series of the Athlete's blood or urine Samples, such as data from the Athlete Biological Passport****."* [emphasis added]

73. The Sole Arbitrator recognizes, consistent with established CAS jurisprudence, that the ABP profile is a suitable method of proving blood doping but not, in and of itself, sufficient to constitute an ADRV under the FIS ADR (see, e.g. CAS 2019/A/6226, para 136.; CAS 2019/A/6254, para. 91).

74. Furthermore, regarding the admissibility of the ABP as evidence, CAS jurisprudence consistently holds that "ABP has been generally accepted as a reliable and accepted means of evidence to assist in establishing anti-doping rule violations" (CAS 2016/O/4682, para 63.; see also, e.g. CAS 2010/A/2174, para 9.8.; CAS 2016/O/4469, para 137.; CAS 2016/O/4463, para 90.; CAS 2016/O/4481, para 133.).

75. Applying the FIS ADR and following the constant CAS jurisprudence cited above, the Sole Arbitrator finds the ABP to be a reliable and accepted means of evidence to assist in establishing an anti-doping rule violation. As such, if a panel, after interpreting the abnormal values in an ABP and considering all other evidence from both quantitative and qualitative perspectives, is convinced that the abnormal values result from a "doping scenario," an ADRV can be appropriately established, even without establishing a specific reason for the blood manipulation (CAS 2019/A/6226, para. 137.; see also, e.g., CAS 2016/O/4464, CAS 2016/O/4469, CAS 2016/O/4481).

76. It is against this background that the Sole Arbitrator must assess whether it has been established that the Athlete committed an ADRV.

2. Validity of Samples 21 and 22

77. It is undisputed that some irregularities occurred regarding the chain of custody for Samples 21 and 22, which resulted in a deviation from the WADA International Standards.

78. None of the Respondents contest that there was no temperature control for Sample 21 for almost 22 hours, after the sample had been collected from the Athlete on 24 November 2016 at 8:49 a.m. The temperature logger in the cooling box in which Sample 21 was stored was defective and replaced only in the morning of 25 November 2016,

before the sample was transported to the Helsinki doping laboratory.

79. Similarly, none of the Respondents contest that no temperature was recorded for Sample 22 for about 2 hours after collection, and that the maximum storage temperature of 12°C was exceeded for 7 hours and 33 minutes, with a temperature high of 15.1°C. The temperature data logger recorded an "ALARM" because of these temperature irregularities.

80. Pursuant to Article 3.2.2 of the FIS ADR, which was applicable at the time of collection of Samples 21 and 22:

> *"WADA-accredited laboratories, and other laboratories approved by WADA, are presumed to have conducted Sample analysis and custodial procedures in accordance with the International Standard for Laboratories. The Athlete or other Person may rebut this presumption by establishing that a departure from the International Standard for Laboratories occurred which could reasonably have caused the Adverse Analytical Finding. If the Athlete or other Person rebuts the preceding presumption by showing that a departure from the International Standard for Laboratories occurred which could reasonably have caused the Adverse Analytical Finding, then FIS or its National Ski Association shall have the burden to establish that such departure did not cause the Adverse Analytical Finding."*

81. The comment to Article 3.2.2 of the FIS ADR reads as follows:

> *"The burden is on the Athlete or other Person to establish, by a balance of probability, a departure from the International Standard for Laboratories that could reasonably have caused the Adverse Analytical Finding. If the Athlete or other Person does so, the burden shifts to FIS or its National Ski Association to prove to the comfortable satisfaction of the hearing panel that the departure did not cause the Adverse Analytical Finding."*

82. Based on the evidence on record, the Sole Arbitrator accepts that the missing temperature control for both Sample 21 (no temperature recording for 22 hours) and Sample 22 (no temperature recording for 2 hours) qualifies as a departure from the WADA International Standards. NADA Austria disputes that the temperature "ALARM" triggered for Sample 22 constitutes a departure from the 2017 WADA ISTI, as said regulation does not provide a specific upper temperature limit beyond which the blood sample becomes invalid.

83. Ultimately, the question whether and to what extent the irregularities constitute a relevant departure from the WADA Standards can be left undecided, because the Sole Arbitrator finds that the Athlete has failed to demonstrate, on a balance of probabilities, that the alleged irregularities could have reasonably caused the adverse analytical finding.

84. During the oral hearing, several experts testified on the impact of temperature variations

during sample storage for the subsequent analysis of the collected blood. The experts agreed that blood samples exposed to extreme temperatures can be damaged to an extent that they become unfit for analysis. The experts (including the expert retained by the Appellant, Prof Ruland) also agreed that "extreme temperatures" for that purpose means below 0 °C or above room temperature.

85. The Sole Arbitrator further accepts the uncontested testimony of Dr Gmeiner, head of the WADA-accredited doping laboratory in Seibersdorf (Austria), and Prof D'Onofrio, member of the Expert Panel, that a sample stored at below 0 °C, which was (temporarily) frozen, will usually be identified as unfit for analysis, and will consequently be discarded. As explained by Dr Gmeiner and Prof D'Onofrio, the red blood cells break during freezing, which is visible during sample analysis.

86. As for Sample 21, for which the temperature remained unrecorded for almost one day, it can be excluded that such sample was accidentally frozen, because the Helsinki doping laboratory did not report any issues with the quality of Sample 21. The same accounts for Sample 22, for which no temperature below 0 degrees was recorded.

87. Exposure of a blood sample to high temperatures may, but does not necessarily have to, be visible during sample analysis. According to Dr Gmeiner's longstanding experience, high temperature exposure during sample storage usually occurs when samples are collected in warm countries and have to be sent to doping laboratories far away from where they were collected. During his oral examination, the Appellant's expert, Prof Ruland, agreed with the other experts that a blood sample stored at 15 degrees for 7:30 hours would remain fit for analysis. He also explained in his expert report that storage at room temperature (appr. 20-25°C) is acceptable up until several hours, while exposure to above room temperature for more than 12 hours would – in his view – be problematic.

88. As a consequence of the largely concurring testimony of the experts, the Sole Arbitrator concludes that Samples 21 and 22 can only be invalidated if, on the balance of probabilities, there is a reasonable possibility that either sample was exposed to a temperature above room temperature for several hours.

89. For Sample 22, this possibility can be ruled out from the beginning. The maximum temperature recorded for this Sample was 15.1°C. As already mentioned, not even the Appellant's own expert finds this temperature problematic in terms of the intactness and stability of the blood sample. The mere fact that the temperature for Sample 22 was not recorded for 2 hours does not compromise the validity of the sample either. The Sole Arbitrator does not find it likely that a sample collected in January – i.e. in the midst of winter in a cold region – could have been exposed to extreme high temperature (above room temperature) from the time of its collection until the temperature recording started. There are no indications that the sample was stored irregularly, and even if it were, that it was exposed to above room temperature. This scenario is purely theoretical, and in fact rather unlikely, and it has no link to the reality of sample collection and storage under the specific conditions present in winter in Austria.

90. For Sample 21, the Sole Arbitrator finds that the Athlete has not demonstrated, on the balance of probabilities, a reasonable likelihood that Sample 21 was exposed to a temperature above room temperature for at least a few hours. An illustrative example discussed by the experts during the hearing was a blood sample stored behind sunny glass. However, Sample 21 was collected in Ruka, Finland, in November. Dr Kirchbichler, whom the Sole Arbitrator considered to be a credible witness, testified that Sample 21 was stored in his hotel room in a cooling box overnight, until the defective temperature logger was discovered and replaced. After the arrival of the cooling box in his room in the evening of the day of sample collection, he did not notice any irregularities regarding the temperature but confirmed that the box was cool and that the cooling elements were working properly. He was not notified of any irregularities of the chain of custody (e.g. storage of the sample outside of the cooling box in a very warm location) in the hours before he received the box. He further explained that the cooling boxes in which samples are stored are insulated to ensure a constant temperature inside. There is no indication whatsoever that Sample 21 was not treated properly after collection, except that the defective temperature logger failed to record the storage temperature, and thus deprived NADA Austria of any direct proof that the required storage temperature was complied with at all times. The fact that one cannot know what the exact storage temperature was does, however, not suggest that the sample was stored improperly, let alone that it was stored at conditions above room temperature for many hours. To that extent, the Expert Panel also confirmed that the scattergram of the sample did not indicate any irregularities, and that the relevant parameter for the validity of a blood sample regarding temperature was normal.

91. In summary, the Sole Arbitrator finds that absent any demonstration of a reasonable likelihood that the alleged departures from the WADA International Standards may have resulted in an adverse analytical finding, Samples 21 and 22 can be considered for the analysis of the Athlete's blood profile.

3. Does the Athlete's ABP prove the alleged ADRV?

92. In its attempt to establish an ADRV of the Athlete under Article 2.2 of the FIS ADR (Use or Attempted Use of a Prohibited Substance), NADA Austria relies on conclusions drawn from longitudinal profiling as shown by the Athlete's ABP. NADA Austria focuses on (i) the APMU's finding that the Athlete's ABP contained a number of outlier samples for HGB, RET% and OFF-score values, meaning that such samples are abnormal at 99% specificity, as well as (ii) the Joint Expert Opinions.

93. On the basis of a respective review of the Athlete's anonymized ABP, each member of the Expert Panel concluded independently, as demonstrated in the 1st Joint Expert Opinion consolidating the concurring opinions of the Expert Panel members, (i) a high haemoglobin concentration (Hb) in Sample 22 exceeding the upper 99% specificity level, and (ii) a high percentage of reticulocytes (%ret) and low OFFscore in Sample 35 exceeding the upper and lower 99% specificity level. The 1st Joint Expert Opinion explains the following (emphases added):

"In Samples 20-21 there is an increase in Hb of 1.2 g/dL within 1.5 months and

with Sample 20 showing slightly elevated %ret (compared to rest of the profile). Although altitude exposure is declared on the DCF, one day of training at 2020m on the day preceding sample collection, the dose of altitude is unlikely to stimulate an increase in reticulocytes. Sample 21 has a high Hb of 16.3 g/dL and a low %ret and indicates a supra-physiological haemoglobin mass (Hbmass). ***A high OFFscore is highly atypical and likely reflects an artificially increased Hbmass resulting in a marked suppression of erythropoiesis reflected by the low %ret; the so-called OFF-phase*** *(1). In the OFF-phase, the increased Hbmass is responsible for a feed-back inhibition of the erythropoietic activity in the bone marrow, with suppressed or reduced production of new red blood cells (reticulocytes).* ***Such a hematologic aberration is not observed in normal physiological conditions and is very unusual even in human pathology. On the other hand, it has been experimentally reproduced in athletes who have received a typical erythropoiesis-stimulating agent (ESA) treatment*** *for research purposes or blood transfusions (1-4).* ***Therefore, it is highly likely that the results of these samples are the result of a previously performed blood manipulation regime before the competitions****. This sample (number 21) was collected two days before the first World Cup of the 2016-2017 season, held in Ruka. The following sample (number 22) shows an even higher Hb of 16.8 g/dL exceeding the upper 99% specificity level and was collected a few days before the World Cup in Lahti, 2017. Further, Sample 23, collected 16 days later on the 20th January 2018, has an elevated Hb with elevated %ret indicating stimulation. This pattern of elevated Hbs and an elevated %ret takes place during a period with several competitions.*

*Samples 35-37 show bone marrow stimulation evidenced by high %ret values and with Sample 35 collected just before the 2019 World Championships in Seefeld followed by a stepwise increase in Hb of 1.4 g/dL during the following three weeks (samples 36 and 37****). Such stimulation pattern is typical when administering an ESA*** *(5).”*

94. The Expert Panel unanimously opined (see above at para. 14) that there is a “high” likelihood that these abnormalities are the result of blood manipulation through an artificial increase of red cell mass. In contrast, the Expert Panel considered the likelihood of a medical condition causing the described pattern to be “very low”.

95. The Sole Arbitrator finds, to her comfortable satisfaction, that the 1st Joint Expert Opinion plausibly explains the occurrence of blood manipulation through administration of a Prohibited Method (erythropoiesis-stimulating agent (or “ESA”) treatment). The Appellant’s attempt to discredit the 1st Joint Expert Opinion because it was based on a wrong competition schedule (belonging not to the Athlete, but to one of his teammates) cannot succeed. The Expert Panel’s reference to the Athlete’s competition schedule had the limited purpose of providing additional support for its scientific interpretation of the blood parameters, in the sense of a “reality check” as to why the Athlete would potentially have doped around the time the abnormal values occurred. However, because it is not a mandatory element for proof of an ADRV that the incriminated athlete sought to enhance his or her performance by administering blood doping (see CAS 2002/A/389-393), the wrong competition calendar does not

compromise the Expert Panel's plausible scientific interpretation of the Athlete's ABP. In any event, both Sample Series can be linked to periods in which the Athlete was preparing for (important) competitions, in which he could potentially have benefited from blood manipulation.

96. In light of NADA Austria's proof of an ADRV, to the comfortable satisfaction of the Sole Arbitrator, the burden of proof shifted to the Athlete to demonstrate, on the balance of probabilities, that the abnormal pattern was caused by other factors than blood manipulation.

97. The Athlete has not disputed the parameters of his blood profile as such, beyond his (unsuccessful) challenge of the validity of Samples 21 and 22 (see above at 2.), and he has not argued that the Expert Panel's conclusions are not - in themselves - plausible. He argues, however, that such "other factor" explaining the abnormal blood values is the fact that he suffers from HG, and that this condition triggered an unusual number of infections which influenced his blood profile (including his HGB, RET% and OFF-score values). In support of his theory, he relies, inter alia, on the medical experts Prof Weiss and Prof Ruland and their expert reports submitted in these proceedings. During the oral hearing, an expert conference took place involving the Appellant's experts Prof Weiss and Prof Ruland, and the Respondent's witnesses and experts, including Dr Hainzl (team doctor of the Austrian Nordic combination team), Prof Seebach, Dr Garvican (member of the Expert Panel) and Prof d'Onofrio.

98. The two central questions discussed between the expert during the expert conference were the following:

(1) Has the Athlete demonstrated that he suffers from HG? If yes, has a demonstrated a significant HG?

(2) Has the Athlete demonstrated that his vulnerability to infections was triggered by his HG? Has he demonstrated, on the balance of probabilities, that the abnormal blood values in his ABP were the result of HG-triggered infections?

99. With respect to the first question, none of the experts disputed Prof Weiss's diagnosis that the Athlete has been suffering from HG. Prof Weiss, who is a renowned medical expert on iron metabolism in the human organism, made the diagnosis in his medical report dated 2 May 2023 after he had examined the Athlete. The Respondents' experts principally accept the HG-diagnosis, but contest the severity, consequence and impact of HG on the Athlete's blood profile. As explained by Prof Seebach, a severe HG requires repeated treatment with antibiotics and is principally incompatible with high-performance (professional) sport. The Expert Panel noted that a significant HG will usually trigger serious (viral and bacterial) infections requiring hospital treatment, including with antibiotics. It is undisputed that the Athlete has not been suffering from such severe infections. What has been proven, through documentary evidence and the testimony of the Austrian team doctor, Dr Hainzl, is an increased number of mild, respiratory viral infections and colds which did, however, not require hospitalization or antibiotic treatment. Dr Hainzl also explained that he gave the Athlete Vitamin C

injections because of his recurring infections, but did not diagnose HG at the time. The HG was diagnosed only after the Athlete had been charged with the present ADRV. The experts eventually agreed during the oral hearing that the Athlete was not suffering from a severe, but only from a mild HG.

100. What has remained contested during the course of these proceedings is whether the Athlete was sick more often than other winter sport athletes. NADA Austria insists that there were only five documented infections over a period of nine years. However, the Arbitrator accepts that the Athlete has probably suffered from more than just these five documented infections. Those other infections were not documented because he did not always visit a doctor. Dr Hainzl as well as the Athlete's endurance coach, Mr Strobl, testified that the Athlete was more vulnerable to infections than other winter sport athletes. While the Arbitrator accepts Dr Hainzl's and Mr Strobl's testimony on the frequency of the Athlete's infections, the fact that many of these infections were not documented automatically confirms their moderate nature. NADA Austria's expert Prof Seebach testified during the hearing that he could accept that the Athlete had many slight infections, but that these types of infections were unsuitable to explain the abnormal values in the Athlete's ABP.

101. As an interim conclusion, the Sole Arbitrator finds, on the balance of probabilities, that the Athlete has been suffering from HG and that he showed a greater vulnerability towards respiratory infections compared to his teammates. She notes, however, that none of these infections were severe, and that the mild character of his infections is compelling evidence that the HG was not significant. She also notes that it remained contested whether the Athlete's repeated infections were the result of his HG, or simply an expression of the greater vulnerability of high-level winter sports athletes to colds and infections in general.

102. It is against this background that the Sole Arbitrator now turns to the second question: Has the Athlete demonstrated, on the balance of probabilities, that the abnormal blood values in his ABP were the result of HG-triggered infections?

103. In his expert report and during the hearing, the Appellant's expert Prof Weiss explained that repeated infections resulting from HG may trigger changes in the iron metabolism, and eventually in the blood profile. In the acute phase of an infection or inflammation, the absorption of iron is reduced, which inhibits the erythropoiesis (blood formation), and which can cause anaemia. Once the infection has subsided, the iron metabolism is corrected to normal, which leads to a stimulation of erythropoiesis. This can be seen in increased reticulocytes after an infection. At the beginning of an infection, according to Prof Weiss, the patient's haemoglobin values are normal to high and reticulocyte values normal to low.

104. In the abstract, the Sole Arbitrator accepts Prof Weiss's scientific explanations on the functioning of the iron metabolism before, during, and after an infection. Prof Weiss is a true expert in this field, and he appeared as a credible witness during the oral hearing. However, the decisive issue is whether the alterations of the iron metabolism described by Prof Weiss in cases of HG-triggered infections can be linked to the Athlete's blood

profile, more particularly to the relevant Sample Series 16-17 and Sample Series 19.

105. Based on the oral testimony provided by the different experts during the expert conference, the Sole Arbitrator is not persuaded, on the balance of probabilities, that HG-triggered infections explain the aberrations observed in Sample Series 16-17 and Sample Series 19. She finds the theory of blood manipulation as the cause of the abnormalities, which has not been contested in itself by the Appellant, more plausible than the Athlete's theory of HG-triggered infections.

106. First, the Sole Arbitrator has significant doubts that the mild infections contracted by the Athlete had the potential to trigger the abnormalities shown in the Athlete's ABP. Severe infections requiring hospitalization and/or antibiotic treatment may have the described effects, but the Athlete was suffering from only moderate respiratory infections and colds.

107. Second, even if mild infections could theoretically explain the changes in the Athlete's blood profile, it is inexplicable why the alterations in the HGB, RET% and OFF-score values would not have occurred more often, in light of the Athlete's allegation that he had been suffering from similar infections very frequently over a long period of time. The Athlete had provided more than 40 blood samples over a period of more than six years. Samples 20-23 and 35-37 are the only outliers. They cannot be analysed in isolation but need to be considered in conjunction with the Athlete's complete longitudinal profile. The Athlete is his own point of reference. The particularities of his metabolism and blood values are taken into account during the analysis of his ABP. The Expert Panel confirmed that, if the Athlete's theory had merit, aberrations similar to those evidenced in the Sample Series 16-17 and 19 should have occurred more often.

108. Third, there is no evidence of anaemia of inflammation, a typical indication for an altered iron metabolism causing regenerative erythropoiesis. The lack of anaemia throughout the entire blood profile indicates, according to the Expert Panel, that mild infections have no (significant) impact on the iron metabolism.

109. Fourth, if the type of infections contracted by the Athlete really resulted in the abnormalities found in the Athlete's ABP, similar profiles would have to be expected from other winter sports athletes. Frequent respiratory infections and colds are typical for elite athletes performing outdoors during the winter. These particularities are factored in when ABPs are interpreted by experts. In the present case, the three members of the expert panel found independent from one another that the Athlete's profile was highly suspicious compared to other profiles.

110. Fifth, the Sole Arbitrator notes that the Appealed Decision contains an extraordinarily detailed and compelling analysis of the available evidence regarding the specific samples at issue here. It explores the blood values for each individual sample and plausibly explains why an assumed infection is not compatible with the Athlete's theory. The Sole Arbitrator entirely endorses this analysis. The Appellant has not submitted any new (expert) evidence challenging the analysis of the individual samples, and specifically the reasoning of the Appealed Decision. Prof Weiss's medical report, issued

after the Appealed Decision, is limited to the diagnosis of HG, but does not include an analysis of the Athlete's ABP. Prof Ruland's report is limited to an abstract assessment of blood profile changes during an infection. It does not mention individual samples at all. Finally, Prof Ruland concludes that it is "unclear" whether there is a direct causal link between the Athlete's infection and his high HBG-values. He argues that "anaemic episodes" triggered by infections may cause high HGB-values. However, no anaemia is evidenced in the Athlete's blood profile.

111. Finally, the Sole Arbitrator notes that the Athlete's contention that a polygraph test confirmed his innocence does not compromise the above analysis. According to standing CAS jurisprudence, polygraph tests have a limited evidentiary value (see, e.g., CAS 2016/A/4534). The CAS has stated that "Polygraph tests […] may have very limited probative value in specific instances, in particular when supported by other strong evidence or filmed" (CAS 2021/A/7768). In the present case, the polygraph test cannot overturn the persuasive expert testimony submitted by the Respondents, particularly in view of the fact that the Respondents could not attend and observe the test and the expert who administered the test could not be questioned and cross-examined by the Respondents at the hearing.

112. Based on these considerations, the Sole Arbitrator finds that the Appellant has failed to demonstrate, on the balance of probabilities, that his HG triggered infections changed his iron metabolism to an extent explaining the abnormal blood values. Rather, based on the evidence before her, the Sole Arbitrator is comfortably satisfied that the abnormalities of the Appellant's ABP are the result of blood manipulation. Hence, the Athlete is guilty of an ADRV under Article 2.2 of the FIS ADR.

B. What is the appropriate sanction to be imposed on the Athlete?

113. Article 10.2.1 of FIS ADR provides the following:

> *"The period of Ineligibility for a violation of Articles 2.1, 2.2 or 2.6 shall be as follows, subject to potential reduction or suspension pursuant to Articles 10.4, 10.5 or 10.6:*
>
> *10.2.1 The period of Ineligibility shall be four (4) years where:*
>
> *10.2.1.1 The anti-doping rule violation does not involve a Specified Substance, unless the Athlete or other Person can establish that the antidoping rule violation was not intentional.*
>
> *10.2.1.2 The anti-doping rule violation involves a Specified Substance and FIS can establish that the anti-doping rule violation was intentional."*

114. The FIS ADR provides for certain circumstances which may lead to an elimination, reduction or suspension of the standard period of ineligibility, such as No Fault or Negligence (Article 10.4 of the FIS ADR), No Significant Fault or Negligence (Article 10.5 of the FIS ADR), substantial assistance in discovering or establishing ADRVs committed by others (Article 10.6.1 of the FIS ADR), admission of the ADRV before having received notice of a possible ADRV (Article 10.6.2 FIS ADR) or prompt

admission of an ADRV after being confronted with a violation sanctionable under Articles 10.2.1 or 10.3.1 of the FIS ADR (Article 10.6.3 FIS ARD 2016).

115. As the Appellant has not admitted to any wrongdoing and blood manipulation practices can only be committed intentionally (see, e.g., CAS 2018/O/5822), he has naturally failed to establish that the ADRV was not intentional. Furthermore, there is no indication for the applicability of any of the other grounds for reduction. Hence, the Appealed Decision correctly established that the Athlete's period of ineligibility shall be four (4) years.

116. According to Article 10.11 of the FIS ADR, the period of ineligibility shall, in principle, start on the date of the final decision. Due to the undisputed delays in the proceedings, the Second Respondent has accepted that the period of ineligibility shall start on 28 November 2019 based on Art. 10.11 of the FIS ADR. In addition, the Second Respondent has accepted the Appealed Decision that annulled all results, points and prizes obtained in the period from 6 October 2016 to 18 February 2017 as well as from 19 February 2019 to 1 April 2019. None of the other Parties have contested the respective decision on sanctions made in the Appealed Decision.

117. Hence, the sanctions imposed on the Appellant are confirmed.

X. COSTS

(…)

***

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. The appeal filed by Mr Mario Seidl on 26 May 2023 against the Österreichischer Skiverband (ÖSV) and the National Anti-Doping Agency of Austria (NADA Austria) with respect to the decision of the *Unabhängige Schiedskommission* rendered on 28 April 2023, is dismissed.

2. The decision rendered by the *Unabhängige Schiedskommission* on 28 April 2023 is confirmed.

3. (…).

4. (…).

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

Seat of arbitration: Lausanne, Switzerland
Date: 20 May 2025

THE COURT OF ARBITRATION FOR SPORT

Annett Rombach
Sole Arbitrator