

UCI Anti-Doping Tribunal

Judgment

case ADT 02.2018

UCI v. Mr. Jaime Roson Garcia

Single Judge:

Ms. Helle Qvortrup Bachmann (Denmark)

Aigle, 15 February 2019

I. INTRODUCTION

1. The present Judgment is issued by the UCI Anti-Doping Tribunal (hereinafter referred to as “the Tribunal”) in application of the UCI Anti-Doping Tribunal Procedural Rules (hereinafter referred to as “the ADT Rules”) in order to decide upon a violation of the UCI Anti-Doping Rules (hereinafter referred to as “the ADR”) committed by Mr. Jaime Roson Garcia (hereinafter referred to as “the Rider”) as alleged by the UCI (hereinafter collectively referred to as “the Parties”).

II. FACTUAL BACKGROUND

2. The circumstances stated below are a summary of the main relevant facts, as submitted by the Parties. Additional facts may be set out, where relevant, in connection with the legal discussion that follows. While the Single Judge has considered all the facts, allegations, legal arguments and evidence submitted by the Parties in the present proceedings, the Judgment refers only to the necessary submissions and evidence to explain her reasoning.

1. The Parties

The UCI

3. The UCI is the association of national cycling federations and is a non-governmental international association with a non-profit-making purpose of international interest, having legal personality pursuant to Articles 60 ff. of the Swiss Civil Code according to Articles 1.1 and 1.2 of the UCI Constitution.

The Rider

The Rider is a professional cyclist of Spanish nationality. He was born on 13 January 1993. At the time of the alleged anti-doping rule violation the Rider was affiliated to the Spanish Cycling Federation (RFEC) and was a License Holder within the meaning of the ADR. The Rider started his professional cycling career in 2014 when he joined the UCI Continental team Team Ecuador. In August 2015 he joined the UCI Professional Continental team Caja Rural-Seguros RGA and rode for that team until the end of the 2017 season. In 2018 he joined the UCI WorldTeam Movistar Team.

2. The ABP

4. The Rider was part of the UCI’s Athlete Biological Passport Programme (hereinafter the “ABP”). The APB is based on longitudinal monitoring of the athlete and is designed to be an “indirect” method of doping detection. It focuses on the effect of prohibited substances and methods on the athlete’s haematological values rather than the identification of a specific substance or method in the athlete’s specimen.
5. The Adaptive Model is a statistic tool which was developed to identify atypical values or profiles that warrant further investigation. It predicts - for the individual athlete - an expected range within which the athlete’s biological markers will fall assuming a normal physiological condition.
6. Haematological data is considered atypical if 1) a haemoglobin (HGB) and/or OFF-score (OFFS) marker value falls outside the expected intra-individual ranges, with outliers corresponding to values out of the 99%-range (0,5 – 99,5 percentiles) (1:100 chance or less that this result is due to normal physiological variation), or 2) when *sequence deviations* (a longitudinal profile of marker

values) are present at specificity of 99,9% (1:1000 chance or less that this is due to normal physiological variation).

7. The OFF-score value is a haematological marker which is a combination of HGB and the percentage of reticulocytes (RET%).

3. The alleged anti-doping rule violation

8. The UCI alleges that the Rider committed a violation of Article 2.2 ADR based on abnormalities detected in the haematological values contained in the Rider's ABP.
9. The following table summarizes the key parameters reported in the Rider's ABP:

No.	Sample code	Date of test	HCT%	HGB (g/dL)	OFF-score	RET# 10 ⁶ /uL	RET %	RBC 10 ⁶ /uL	MCHC g/dL
1	176704	20.01.2016	43.9	15.7	104.69	0.0376	0.76	4.95	35.8
2	182281	01.02.2016	43.5	14.8	99.26	0.0316	0.66	4.79	34
3	894566	09.03.2016	46.8	15.9	90.1	0.0694	1.32	5.26	34
4	182583	29.03.2016	42.3	14.6	74.75	0.0678	1.41	4.81	34.5
5	894814	29.07.2016	43.6	14.6	87.5	0.0453	0.95	4.77	33.5
6	321535	18.08.2016	46	15.5	90.1	0.0594	1.17	5.08	33.7
7	327295	19.01.2017	46.3	15.6	111.5	0.0277	0.55	5.03	33.7
8	183123	25.01.2017	47.6	16.4	127.5	0.0197	0.37	5.33	34.5
9	324516	13.03.2017	46.5	15.6	96.3	0.0527	0.99	5.32	33.5

10. In the present case, the Rider's biological profile was flagged twice by the Adaptive Model with abnormalities at 99% specificity (once for lower limit reticulocytes, once for upper limit OFF-score) for sample 8. The ABP marker values for reticulocytes and OFF score were also abnormal at >99,5% specificity.
11. Following the initial expert review, the Athlete's Passport Management Unit submitted the Rider's ABP to an expert panel consisting of three experienced anti-doping specialists (Giuseppe d'Onofrio, Michel Audran and Yorck Olaf Schumacher; hereinafter: the Expert Panel) for independent evaluation.
12. The Expert Panel conducted a review of the Rider's ABP and the Rider's competition schedule for 2016 and 2017, and in a joint expert opinion dated 8 October 2017 (Expert Opinion #1) set forth their unanimous opinion on the Rider's haematological profile as follows:

"[...] In our view, the data of the athlete bears highly abnormal features for which no explanation is available at this stage:

Sample 8 obtained on 25.1.2017 displays a high haemoglobin concentration paired with low reticulocytes, leading to an increased OFF score. Such pattern is typically observed when red blood cell mass has been supraphysiologically increased (high haemoglobin) and the organism tries to downregulate this surplus by suppressing its own red cell production (low reticulocyte). This situation is pathognomonic for the use and recent discontinuation of an erythropoietic stimulant or the application of a blood transfusion (1). Sample 7, taken 6 days prior, shows a similar, although still less pronounced pattern, which develops further in sample 8. The fact that these samples were obtained in the lead up to a series of races starting the 2017 season increases the suspicion. In fact, the athlete likely has stopped using erythropoiesis stimulating substances shortly before these races to avoid detection through the normal doping tests conducted during competition.

Based on these facts and the information available to date, it is our unanimous opinion that in the absence of an appropriate physiological explanation, the likelihood of the abnormalities described

above being due to blood manipulation, namely the artificial increase of red cell mass using for example erythropoiesis stimulating substances, is high. On the contrary, the likelihood of environmental factors or a medical condition causing the described pattern is low.

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

13. On 13 April 2018, upon invitation and after all relevant documentation had been sent to the Rider, the Rider sent an explanation and two Expert Reports to the UCI. The Rider also informed the UCI that he had appointed three experts to give their opinion on the case: Prof. Silvia Pellegrini, Dr. C.M. Panizo Santos, and one more expert. The Rider submitted that *"the cause of the 'blood alterations' was a 'probable parvovirus B19 infection'"* which affected his haematological profile in the period of the ABP abnormalities. The Rider submitted a Report dated 27 March 2018 from Dr. C.M. Panizo Santos and another Report dated 11 April 2018 from Prof. Silvia Pellegrini. Dr. C.M. Panizo Santos stated in his Report that the Rider denies having committed any action involving doping, and that it is Dr. C.M. Panizo Santos' opinion *"[...] that the blood abnormalities detected in the [Rider's ABP] do not unequivocally indicate blood manipulation by means of erythropoiesis stimulating agents or red blood cell transfusion. These findings should have been analyzed considering other medical conditions such in the present case is the B19V infection that systematically interfere with the expected normal blood pattern.[...]"* Prof. Silvia Pellegrini confirmed in her Report the conclusions reported by Dr. C.M. Panizo Santos, and further stated that *"[...] I believe that the low level in reticulocyte percent [ret%] (0.37%), observed in the athlete on January 25, 2017, accompanied by values of Hemoglobin [HGB] (16.4 g/dl) and mature red blood cells [RBC] (5.33×10^6 /ul) close to the upper limits but still within the normal range, may have been induced by a parvovirus B19 infection. [...] Thus, an acute viral infection by B19 can result in blood alterations - namely, a decrease in ret% - that are indistinguishable from those that may follow assumptions of pharmacological doping agents or procedures of blood manipulations, as the three independent experts pointed out. In summary, the conclusions of Dr. C.M. Panizo Santos from the CLINICA UNIVERSIDAD DE NAVARRA, concerning a probable parvovirus B19 infection, are in line with data reported by the scientific literature and absolutely agreeable."*
14. On 18 May 2018, the Expert Panel issued a follow up Report (Expert Opinion #2) in which it considered the Rider's explanations and Expert Reports. The opinion of the Expert Panel was as follows:

"[...] Parvovirus B19 is widely present in the human population. The sero-prevalence (signs of past viral infection in the blood) in developed countries ranges around 60-80% in adults and increases with age: At age 70, 80-100% of all humans are sero-positive. Infections occurs mostly in childhood and provide subsequent immunity which prevails throughout life (1-4). [...]"

Parvovirus B19 - Hematological changes

"[...] Clinically, the infection of erythroid progenitors with Parvovirus B19 leads to erythropoietic suppression with temporary cessation of red cell production through cytotoxic inhibition of Colony- and Burst-forming units in the bone marrow (CFU-E and BFU-E). In the peripheral blood, this becomes visible through reduced reticulocyte counts. The erythropoietic suppression can have various levels of severity: In most cases, the condition is self-limiting; reticulocytes drop for 4-8 days, only marginally lowering haemoglobin levels (2,7). [...]"

[Figure 1 omitted]

Parvovirus B19 and the haematological profile BPA2084S28

As mentioned, the athlete's experts claim that the abnormal constellation in samples 7 and 8 of the profile was caused by acute Parvovirus infection. They submit the results of a serological test which shows positive IgG antibodies for the virus.

Positive IgG antibodies indicate previous infection and immunity. However, a positive IgG result provides only little information on the exact time point of infection: It can only be concluded that the infection was likely more than 1 month ago. However, it cannot be determined whether it was 1 month or 10 years ago, as the level of IgG does not correlate with the time point of infection (i.e. higher IgG levels do not indicate more recent infection). As mentioned above, IgG level in an individual fluctuate depending on internal and external factors.

While we accept that it is difficult to retrospectively prove acute Parvovirus B19 infection at the time of the suspicious tests (in January 2017) in the absence of a sample in which serology for IgM could be performed, several facts should be considered when weighing the two hypotheses to be discussed here, i.e. erythropoietic suppression due to blood manipulation vs. erythropoietic suppression due to acute Parvovirus B19 infection:

Haemoglobin concentration:

As of the above, it is commonly accepted that haemoglobin concentration, in absence of an underlying blood disorder, is only mildly affected in Parvovirus-associated, transient erythropoietic suppression and will likely show slightly lower values than usual [figure 1 omitted] (2,10). In the athlete however, the samples supposedly affected by the acute infection show the highest (sample 8) and the fourth-highest (sample 7) haemoglobin concentration of the profile. While not in line with the literature on the haematological effects of Parvovirus B19, the combination of low reticulocytes and high haemoglobin causing a high OFF score such as seen in samples 7 and 8 is typical and pathognomonic for the recent abuse and discontinuation of an erythropoietic stimulant such as EPO or the recent application of a blood transfusion (12,13). The credibility of this hypothesis is further increased when considering the changes between samples 7 and 8, where reticulocytes drop further and haemoglobin increases, such as observed after erythropoietin treatment (14,15).

Other markers of viral infection:

Parvovirus B19 infection, is, like most other systemic viral infections, accompanied by other changes in the peripheral blood picture indicating the (unspecific) reaction of the immune system to the virus. According to the literature, significant decreases are seen in white blood cells (neutrophils and lymphocytes) and platelets in parallel to the changes visible in reticulocytes (10). In figure 2 below (from (10)), the changes from baseline in these markers after experimental Parvovirus B19 infection in healthy volunteers are illustrated (for comparison: low reticulocytes usually occur between day 10 and 14 ± 2 days): [figure 2 omitted]

Relating these facts to the profile, table 1 below summarizes the values from the blood data of the athlete (where available). It is clear that none of the features described above are present in the samples supposedly affected by Parvovirus B19 infection (samples 7 and 8). All three markers are within the range of the previous samples of the profile and do not show any relevant changes. [Table 1 omitted]

Performance:

Lastly, it should be noted that the athlete placed 12th in a difficult one-day cycling race 3 days after sample 8, only 9 seconds off the winner. Whether this can be achieved in the presence of an acute Parvovirus infection and its typical symptoms remains speculative.

In summary, the hypothesized Parvovirus B19 infection can cause low reticulocytes, one of the abnormal features seen in the profile, usually for a few days at the time of the acute infection. However, considering all other aspects (high prevalence of Parvovirus B19 IgG positivity in the normal population, high haemoglobin level, absence of white blood cell modifications typically associated

with acute viral infections, performance), the explanation provided by the athlete's experts presents with substantial weaknesses and therefore represents a very unlikely scenario. It further provides no full explanation of the abnormal pattern highlighted in our previous opinion. In contrast, erythropoietic stimulant intake and subsequent cessation or the recent application of a blood transfusion matches the haematological picture of the profile very well.

We therefore conclude that based on the data available at this stage, it is highly likely that a prohibited substance or prohibited method has been used and that it is unlikely that the passport is the result of the causes highlighted by the defense experts."

15. On 27 June 2018, the Rider was informed of the Expert Panel's conclusion and was provided with the relevant documentation. In the same communication the Rider was notified by the UCI that an anti-doping rule violation of Article 2.2 ADR was asserted against him and that he was therefore provisionally suspended. The Rider was also offered an Acceptance of Consequences pursuant to Article 8.4 ADR.
16. On 20 July 2018, the Rider rejected the UCI's Acceptance of Consequences and requested to have his case decided by the Tribunal.
17. On 24 August 2018, the UCI referred the case to the Tribunal. In its referral to the Tribunal, the UCI requested the following:
 - *Declaring that Mr. Jaime Roson Garcia has committed an Anti-Doping Rule Violation;*
 - *Imposing on Mr. Jaime Roson Garcia a Period of Ineligibility of 4 years starting on the date of notification of the Tribunal's decision;*
 - *Holding that the period of provisional suspension served by the Rider since 27 June 2018 shall be credited against the period of ineligibility imposed by the Tribunal;*
 - *Disqualifying all the results obtained by Mr. Jaime Roson Garcia from 1 January 2017 (at a minimum), until he was provisionally suspended;*
 - *Ordering Mr. Jaime Roson Garcia to pay a fine of ██████████ EUR; and*
 - *Ordering Mr. Jaime Roson Garcia to pay the costs of results management by the UCI (2'500.- CHF), and the costs incurred for the documentation packages of the blood samples analysed for the Biological Passport (495.- EUR).*

III. PROCEDURE BEFORE THE TRIBUNAL

18. In accordance with Article 13.1 ADT Rules, the UCI initiated proceedings before this Tribunal through the filing of a petition to the Secretariat on 24 August 2018. Before referring the case to the Tribunal, the UCI tried to settle the dispute by offering the Rider an Acceptance of Consequences within the meaning of Article 8.4 ADR and Article 2 ADT Rules. The offer of Acceptance of Consequences was rejected by the Rider on 20 July 2018.
19. On 28 August 2018, the Secretariat of the Tribunal appointed Ms. Helle Qvortrup Bachmann to act as Single Judge in the present proceedings in application of Article 14.1 ADT Rules.

20. In application of Article 14.4 ADT Rules, the Rider was informed on 29 August 2018 that disciplinary proceedings had been initiated against him before the Tribunal. Furthermore, the Rider was informed that any challenge to the appointment of the Single Judge and any objection to the jurisdiction of the Tribunal should be brought to the Secretariat within 7 days of the receipt of the correspondence, and that he was granted a deadline of 14 September 2018 to submit his answer in conformity with Articles 16.1 and 18 of the ADT Rules.
21. On 14 September 2018, the Rider submitted:
 - his Answer;
 - two Expert Reports; one Report from Prof. Dr. Carlos Panizo Santos and Prof. Dr. José Luis del Pozo dated 7 September 2018, and one Report from Prof. Silvia Pellegrini dated 13 September 2018;
 - two reports from the Unità Operativa Laboratorio di Analisi Chimico Cliniche of the Azienda Ospedaliera Universitaria Pisana dated 12 September 2018 and 13 September 2018; and
 - a request for a hearing to be held in persona.
22. On 20 September 2018, the Tribunal acknowledged receipt of the Rider's Answer and exhibits and granted the UCI in accordance with Article 17 ADT Rules a deadline until 5 October 2018 to provide any comments it might have to the Rider's Answer and to submit to the Tribunal any further exhibits, limited to the Rider's line of argument which had not been presented previously. Furthermore, the Rider was advised that he would be given a further opportunity to submit written submissions in response to UCI's comments. The Tribunal also acknowledged the Rider's request for a hearing to be held in persona.
23. On 4 October 2018 the UCI requested for a one week deadline extension, which was granted by the Single Judge on the same day.
24. On 12 October 2018 the UCI submitted the Expert Panel's written evaluation of the Rider's new line of argument, dated 2 October 2018 (Expert Opinion #3), and UCI's comments on the Rider's Answer.
25. On 16 October 2018 the Tribunal acknowledged receipt of the UCI's correspondence, and granted the Rider a deadline until 31 October 2018 to provide his final written comments limited to UCI's latest submission and exhibit. The Tribunal also informed the Parties that a hearing in persona would be held in this matter.
26. On 30 October 2018 the Rider submitted his final written comments and two Expert Reports; one report from Prof. Dr. Carlos Panizo Santos dated 30 October 2018, and one Report from Prof. Silvia Pellegrini dated 28 October 2018.
27. On 9 November 2018 the Tribunal acknowledged receipt of the Rider's final written comments and exhibits, provided the correspondence to the UCI and informed the Parties that the written proceedings were closed.
28. On 12 December 2018 a preparatory telephone conference took place with the Parties' attorneys and in accordance with Article 22 paragraph 10 ADT Rules.
29. After consultation with the Parties, the hearing was scheduled for and held on 20 December 2018 in Geneva. The hearing was attended on behalf of the UCI by:

Mr. Antonio Rigozzi, attorney-at-law, Lévy Kaufmann-Kohler, Geneva
Ms. Brianna Quinn, attorney-at-law, Lévy Kaufmann-Kohler, Geneva

and on behalf of the Rider by:

Mr. Jaime Roson Garcia, the defendant
Mr. Fabio Pavone, attorney-at-law, Studio Legale Avv. Pavone Fabio, Castelfranco Veneto
Ms. Manuela Turcato, assistant attorney-at-law, Studio Legale Avv. Pavone Fabio, Castelfranco Veneto
Ms. Christina Finotti, interpreter

During the hearing the following experts were heard by the Tribunal:

Dr. Yorck Olaf Schumacher (called by the UCI)
Prof. Giuseppe d’Onofrio (called by the UCI)
Prof. Silvia Pellegrini (called by the Rider).

IV. JURISDICTION OF THE TRIBUNAL

30. The jurisdiction of the Tribunal follows from Article 8.2 ADR and Article 3.1 ADT Rules according to which *“the Tribunal shall have jurisdiction over all matters in which an anti-doping rule violation is asserted by the UCI based on a results management or investigation process under Article 7 ADR”*.
31. Article 3.2 ADT Rules provides that *“Any objection to the jurisdiction of the Tribunal shall be brought to the Tribunal’s attention within 7 days upon notification of the initiation of the proceedings. If no objection is filed within this time limit, the Parties are deemed to have accepted the Tribunal’s jurisdiction”*.
32. In this case, the UCI asserted the anti-doping rule violation following a results management/investigation process under Article 7 ADR; the Rider is a license-holder within the meaning of the ADR and is bound by the ADR; the Rider declared in an e-mail to the UCI on 20 July 2018 that the Rider *“wants to defend himself before the UCI Tribunal”*; and neither of the Parties raised any objection to the jurisdiction of the Tribunal within said deadline.
33. Therefore it follows that the Tribunal has jurisdiction to decide on this matter.

V. APPLICABLE RULES

34. Article 25 ADT Rules provides that *“the Single Judge shall apply the [UCI] ADR and the standards referenced therein as well as the UCI Constitution, the UCI Regulations and, subsidiarily, Swiss law”*.
35. The relevant samples of the Rider’s ABP were collected between 20 January 2016 and 13 March 2017.
36. Article 25.1 ADR provides that the effective date of the 2015 edition of the ADR is 1 January 2015. Since the relevant doping controls were carried out after this date, the Single Judge shall apply the 2015 edition of the ADR.

37. As to the other “standards referenced therein” the Tribunal notes that part E of the introduction of the ADR provides as follows:

“Under the World Anti-Doping Program, WADA may release various types of documents, including (a) International Standards and related Technical Documents, and (b) Guidelines and Models of Best Practices.

The UCI may, consistent with its responsibilities under the Code, choose to (a) directly incorporate some of these documents by reference into these Anti-Doping Rules, and/or (b) adopt Regulations implementing all or certain aspects of these documents for the sport of cycling.

Compliance with an International Standard incorporated in these Anti-Doping Rules or with UCI Regulations (as opposed to another alternative standard, practice or procedure) shall be sufficient to conclude that the procedures addressed by the International Standard or UCI Regulations were performed properly.

All documents binding upon Riders or other Persons subject to these Anti-Doping Rules are made available on the UCI Website, in their version effective and as amended from time to time.”

38. The Tribunal also notes that Article 7.5 ADR provides as follows:

“Review of Atypical Passport Findings and Adverse Passport Findings shall take place as provided in the UCI Testing & Investigations Regulations, the International Standard for Laboratories, WADA Athlete Biological Passport Operating Guidelines and respectively related Technical Documents. [...]”

39. Accordingly, in addition to the ADR, the Single Judge will take into consideration the UCI Testing & Investigations Regulations, the International Standard for Laboratories, the WADA Athlete Biological Passport Operating Guidelines (“WADA ABP Guidelines”), and the related Technical Documents to the extent relevant or necessary.

Anti-doping rule violation

40. Article 2.2. ADR defines the relevant anti-doping rule violation as follows:

“2.2 Use or Attempted Use by a Rider of a Prohibited Substance or Prohibited Method

2.2.1 *It is each Rider’s personal duty to ensure that no Prohibited Substance enters his or her body and that no Prohibited Method is Used. Accordingly, it is not necessary that intent, Fault, Negligence or knowing Use on the Rider’s part be demonstrated in order to establish an anti-doping rule violation for Use of a Prohibited Substance or a Prohibited Method.*

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

[Comment to Article 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 Article 3.2, unlike the proof required to establish an anti-doping rule violation under Article 2.1, Use or Attempted Use may also be established by other reliable means such as admissions by the Rider, witness statements, documentary evidence, conclusions drawn from longitudinal profiling, including data collected as part of the Rider Biological Passport, or other analytical which does not otherwise satisfy all the requirements to establish ‘Presence’ of a Prohibited Substance under Article 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 Organization provides a satisfactory explanation for the lack of confirmation in the other Sample.] [...]"

Burdens and Standards of proof

41. As to the burden and standard of proof, Article 3.1 ADR reads as follows:

"The UCI shall have the burden of establishing that an anti-doping rule violation has occurred. The standard of proof shall be whether the UCI 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 Rider 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.[...]"

42. As to the methods of establishing facts and presumptions, Article 3.2 ADR provides:

"Facts related to anti-doping rule violations may be established by any reliable means, including admissions. The following rules of proof shall be applicable in doping cases:

[Comment to Article 3.2: For example, the UCI may establish an anti-doping rule violation under Article 2.2 based on the Rider'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 Rider's blood or urine Samples, such as data from the Athlete Biological Passport.]]

[...]

- 3.2.2 *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 Rider 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 Rider 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 the UCI shall have the burden to establish that such departure did not cause the Adverse Analytical Finding.

[Comment to Article 3.2.2: The burden is on the Rider 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 Rider or other Person does so, the burden shifts to the UCI to prove to the comfortable satisfaction of the hearing panel that the departure did not cause the Adverse Analytical Finding.]

- 3.2.3 *Departures from any other rule set forth in these Anti-Doping Rules, or any International Standard or UCI Regulation incorporated in these Anti-Doping Rules which did not cause an Adverse Analytical Finding or other anti-doping rule violation shall not invalidate such evidence or results. If the Rider or other Person establishes a departure from any other rule set forth in these Anti-Doping Rules, or any International Standard or UCI Regulation incorporated in these Anti-Doping Rules which could reasonably have caused an anti-doping rule violation based on an Adverse Analytical Finding or other anti-doping rule violation, then the UCI shall have the burden to establish that such departure did not cause*

the Adverse Analytical Finding or the factual basis for the anti-doping rule violation. [...]

Sanctions and Consequences

43. As for the standard period of Ineligibility Article 10.2 ADR provides as follows:

“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 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 years where:*

10.2.1.1 *The anti-doping rule violation does not involve a Specified Substance, unless the Rider or other Person can establish that the anti-doping rule violation was not intentional.*

10.2.1.2 *The anti-doping rule violation involves a Specified Substance and the UCI can establish that the anti-doping rule violation was intentional.*

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

10.2.3 *As used in Articles 10.2 and 10.3, the term ‘intentional’ is meant to identify those Riders who cheat. The term therefore requires that the Rider or other Person engaged in conduct which he or she 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 which is only prohibited In-Competition shall be rebuttably presumed to be not intentional if the substance is a Specified Substance and the Rider 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 which is only prohibited In-Competition shall not be considered intentional if the substance is not a Specified Substance and the Rider can establish that the Prohibited Substance was Used Out-of-Competition in a context unrelated to sport performance.”*

44. As for the possibilities to reduce the aforementioned periods of Ineligibility based on fault, the ADR Articles 10.4 and 10.5 state as follows:

“10.4 Elimination of the Period of Ineligibility where there is No Fault or Negligence

*If a Rider or other Person establishes in an individual case that he or she bears No Fault or Negligence, then the otherwise applicable period of Ineligibility shall be eliminated.
[...]*

**10.5 Reduction of the Period of Ineligibility based on No Significant Fault or Negligence
[...]**

10.5.2 *Application of No Significant Fault or Negligence beyond the Application of Article 10.5.1*

If a Rider or other Person establishes in an individual case where Article 10.5.1 is not applicable that he or she bears No Significant Fault or Negligence, then, subject to further reduction or elimination as provided in Article 10.6, the otherwise applicable period of Ineligibility may be reduced based on the Rider or other Person’s degree of Fault, but the reduced period of Ineligibility may not be less than one-half of the period of Ineligibility otherwise applicable. If the otherwise applicable period of Ineligibility is a lifetime, the reduced period under this Article may be no less than eight years. [...]

45. In relation to the commencement of the period of Ineligibility Article 10.11 ADR provides as follows:

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

10.11.3.1 If a Provisional Suspension is imposed and respected by the Rider or other Person, then the Rider or other Person shall receive a credit for such period of Provisional Suspension against any period of Ineligibility which may ultimately be imposed. If a period of Ineligibility is served pursuant to a decision that is subsequently appealed, then the Rider or other Person shall receive a credit for such period of Ineligibility served against any period of Ineligibility which may ultimately be imposed on appeal. [...]”

46. In relation to the automatic Disqualification of results Article 9 ADR provides as follows:

“An anti-doping rule violation in connection with an In-Competition test automatically leads to Disqualification of the result obtained in that Competition with all resulting Consequences, including forfeiture of any medals, points and prizes.”

47. In relation to the Disqualification of results in competitions subsequent to sample collection or commission of an anti-doping rule violation Article 10.8 ADR provides as follows:

“In addition to the automatic Disqualification of the results in the Competition which produced the positive Sample under Article 9, all other competitive results of the Rider obtained from the date a positive Sample was collected (whether In-Competition or Out-of-Competition), or other anti-doping rule violation occurred, through the commencement of any Provisional Suspension or Ineligibility period, shall, unless fairness requires otherwise, be Disqualified with all of the resulting Consequences including forfeiture of any medals, points and prizes.[...]”

Mandatory fine and costs

48. In relation to the Financial Consequences, Article 10.10.1 ADR provides as follows:

“In addition to the Consequences provided for in Article 10.1-10.9, violation under these Anti-Doping Rules shall be sanctioned with a fine as follows.

10.10.1.1 A fine shall be imposed in case a Rider or other Person exercising a professional activity in cycling is found to have committed an intentional anti-doping rule violation within the meaning of Article 10.2.3.

[Comments: 1. A member of a Team registered with the UCI shall be considered as exercising a professional activity in cycling. 2: Suspension of part of a period of Ineligibility has no influence on the application of this Article].

The amount of the fine shall be equal to the net annual income from cycling that the Rider or other Person was entitled to for the whole year in which the anti-doping violation occurred. In the Event that the anti-doping violation relates to more than one year, the amount of the fine shall be equal to the average of the net annual income from cycling that the Rider or other Person was entitled to during each year covered by the anti-doping rule violation.

[Comment: Income from cycling includes the earnings from all the contracts with the Team and the income from image rights, amongst others.]

The net income shall be deemed to be 70 (seventy) % of the corresponding gross income. The Rider or other Person shall have the burden of proof to establish that the applicable national income tax legislation provides otherwise. Bearing in mind the seriousness of the offence, the quantum of the fine may be reduced where the circumstances so justify, including:

- 1. Nature of anti-doping rule violation and circumstances giving rise to it;*
- 2. Timing of the commission of the anti-doping rule violation;*
- 3. Rider or other Person's financial situation;*
- 4. Cost of living in the Rider or other Person's place of residence;*
- 5. Rider or other Person's Cooperation during the proceedings and/or Substantial Assistance as per article 10.6.1.*

In all cases, no fine may exceed CHF 1,500,000.

For the purpose of this article, the UCI shall have the right to receive a copy of the full contracts and other related documents from the Rider or other Person, the auditor or relevant National Federation.

[Comment: No fine may be considered a basis for reducing the period of Ineligibility or other sanction which would otherwise be applicable under these Anti-Doping Rules]."

49. As for the liability for costs of the procedures, Article 10.10.2 ADR provides as follows:

"If the Rider or other Person is found to have committed an anti-doping rule violation, he or she shall bear, unless the UCI Tribunal determines otherwise:

- 1. The cost of the proceedings as determined by the UCI Anti-Doping Tribunal, if any.*
- 2. The cost of the result management by the UCI; the amount of this cost shall be CHF 2'500, unless a higher amount is claimed by the UCI and determined by the UCI Anti-Doping Tribunal.*
- 3. The cost of the B Sample analysis, where applicable.*
- 4. The cost incurred for Out-of-Competition Testing; the amount of this cost shall be CHF 1'500, unless a higher amount is claimed by the UCI and determined by the UCI Anti-Doping Tribunal.*
- 5. The cost for the A and/or B Sample laboratory documentation package where requested by the Rider.*
- 6. The cost for the documentation package of Samples analyzed for the Biological Passport, where applicable. [...]"*

50. As for the liability for costs of the proceedings, Article 28 ADT Rules provides as follows:

- "1. The Tribunal shall determine in its judgment the costs of the proceedings as provided under Article 10.10.2 para. 1 ADR.*
- 2. As a matter of principle the Judgment is rendered without costs.*
- 3. Notwithstanding para. 1 above, the Tribunal may order the Defendant to pay a contribution toward the costs of the Tribunal. Whenever the hearing is held by videoconference, the maximum participation is CHF 7'500.*
- 4. The Tribunal may also order the unsuccessful Party to pay a contribution toward the prevailing Party's costs and expenses incurred in connection with the proceedings and, in particular, the costs of witnesses and experts. If the prevailing Party was represented by a legal representative the contribution shall also cover legal costs."*

VI. THE FINDINGS OF THE TRIBUNAL

51. The main issues for the Single Judge to decide are whether the UCI has successfully established that the Rider committed a violation of Article 2.2 ADR, and if so, to decide upon the consequences of such anti-doping rule violation.

1. Did the Rider commit an anti-doping rule violation?

52. The UCI submits that the Rider committed an anti-doping rule violation within the meaning of Article 2.2. ADR, which conclusion the UCI derives from the analytical data in the Rider's ABP as well as the interpretation of said data by the Expert Panel.
53. The Rider objects to this conclusion. The Rider argues that the analytical results of the samples number 7 and 8 shall be discarded, and the Rider argues that the abnormalities in his ABP can be explained by a parvovirus B19 infection, by in vitro haemolysis or by a combination of the two scenarios.
54. It follows from Article 3.1 ADR that the UCI bears the burden of proof to establish that the Rider committed a violation of Article 2.2 ADR. The standard of proof is *"comfortable satisfaction, 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"*.

a) The ABP as reliable evidence

55. It is not in dispute that the ABP is a reliable means for the purpose of establishing the use of a prohibited substance or prohibited method within the meaning of Article 2.2 ADR. That the ABP constitutes a reliable means of evidence has been confirmed by numerous CAS decisions¹ and by this Tribunal,² and it also follows from the comment to Article 3.2 ADR that *"the UCI may establish an anti-doping rule violation under Article 2.2 based on the conclusions drawn from the profile of a series of the Rider's blood or urine Samples, such as data from the Athlete Biological Passport"*.

b) Should the data of samples number 7 and 8 be included in the Rider's ABP?

56. The UCI bases its allegation of an anti-doping rule violation on the haematological profile of the Rider's blood samples number 7 and 8, collected on 19 January 2017 and 25 January 2017.

i) The Rider's challenge of the reliability of the analytical results

57. The Rider claims that the analytical results in his ABP regarding samples 7 and 8 shall be discarded because of a potential haemolysis of the blood samples. The Rider argues that because of a long transportation time of samples number 7 and 8 and because *"the blood collection and shipment occurred in Mid January, with freezing temperatures that likely exposed the tubes also to thermic shocks during travelling"*; and further because *"sample 7 was exposed to a temperature below 2°C for a period of time of about 5 consecutive hours, including over 1 hour at 0°C"* then the sample *"got frozen"* and therefore it is *"a very probable, not to say an inevitable, consequence"* that the handling process of the samples resulted in haemolysis of the samples. The Rider bases his

¹ See e.g. CAS 2015/A/4006, para. 103; CAS 2016/O/4481, para. 133; CAS 2016/O/4464, para 148; CAS 2010/A/2174, para 9.8; CAS 2010/A/2176; CAS 2010/A/2235.

² UCI ADT 03.2017, *UCI v. Isabella Moreira Lacerda*, para 60, and UCI ADT 06.2017, *UCI v. Alex Correia Diniz*, para 54.

arguments on the Expert Opinion of Prof. Pellegrini, who also stated that “no descriptions of the blood collection procedures are reported”.

58. Prof. Pellegrini stated at the hearing that sample 7 was transported from collection to analysis for about 32 hours 52 minutes, and was exposed to 0°C, and that sample 8 was transported from collection to analysis for about 19 hours 28 minutes and was exposed to 2°C. Prof. Pellegrini in her Expert Report and at the hearing referred to the World Health Organisation’s “Manual on the management, maintenance and use of blood cold chain equipment” (2005). From the manual “the acceptable maximum storage times as a function of different temperature ranges are indicated”. According to the manual, blood samples have to stay between 2 to 6°C during transportation. Prof. Pellegrini argued that there exists a lower limit of temperature, and that this lower limit is 2°C; that the “lower limit of 2°C is very important since red [blood] cells are very sensitive to freezing. If they are allowed to freeze, the red cell membranes rupture and the haemoglobin is released; that is, the cells are haemolysed”; and Prof. Pellegrini further argued that low temperatures at 2°C and 0°C are very critical temperatures for blood samples during transportation; and stated that the temperature of sample 7 exposed to 0°C was “not okay” since it was “under the lower limit”.

59. Prof. Pellegrini stated in her Expert report dated 13 September 2018:

“[...] Furthermore, when samples are not processed shortly after drawing, but are kept in the lab or even worse are shipped to be processed elsewhere, the likelihood of hemolysis greatly increases, due to mechanical shocks, temperature changes (especially in winter or summer), mishandling and even just elapsing time from drawing. (9).

As a matter of fact, in the specific case of Mr. Jaime Rosan Garcia, both blood drawings were executed by PWC blood collection officers, the first one in a place not indicated in the analytical report (007_BPA2084S28_LAB_327295_19.01.2017), the second one in Palma De Mallorca after a competition (008_BPA2084S28_LAB_183123_25.01.2017). Both the places of blood collection were located far away from the laboratories that later performed the blood tests. The first sample, in fact, was delivered to a laboratory in Koln (Germany) and the second sample, from Palma De Mallorca, to a laboratory in Barcelona (Spain), both one day after being collected. No descriptions of the blood collection procedures are reported. Of note, the blood collection and shipment occurred in Mid January, with freezing temperatures that likely exposed the tubes also to thermic shocks during travelling. [...]”

60. As regards the legal basis for this challenge, the Rider did not submit which specific International Standard, WADA Guideline or other anti-doping rule the Rider finds has been violated. The Rider did though refer to the World Health Organisation’s “Manual on the management, maintenance and use of blood cold chain equipment”. The Single Judge understands the Riders submission to be a challenge of Article 3.2.2 ADR and/or Article 3.2.3 ADR.

ii) Position of the UCI

61. The Expert Panel in Expert Opinion #1 stated:

“All samples were scrutinized for their analytical details outlined in the documentation packages and certificates of analysis. 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 influence the analytical result to the disadvantage of the athlete. In particular, several minor deviations in the storage temperatures of samples 1,3,4 and 5 do not impact our evaluation of the profile.”

62. The UCI also emphasized at the hearing that there are very stringent guidelines in order to avoid that a haemolysed sample is included in an ABP, and that in the case at hand there is no indication that the rules were not followed. Also the Blood Stability Score was okay for samples 7 and 8.

63. Prof. d’Onofrio emphasized at the hearing that a sample that has been exposed to a temperature below 0°C is automatically invalidated by the Adaptive Model in ADAMS pursuant to the WADA ABP Guidelines, and he also emphasized that the relevant samples number 7 and 8 were acceptably stored and that the storage temperature was considered optimal.

iii) Presumption and Rebuttal of the Presumption

64. The starting point of the analysis is Article 3.2.2. According thereto “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 Laboratories where the analysis of the Rider’s blood samples was conducted are WADA-accredited. Thus, the presumption contained in Article 3.2.2 ADR applies.
65. Article 3.2.2 ADR provides explicit guidance on how a Rider may rebut a presumption of procedural validity and thereby (potentially) invalidate the results of the analysis of a WADA-accredited Laboratory based on a procedural error (or departure) from the International Standard for Laboratories: i) The Rider must establish by a balance of probability “that a departure from the International Standard for Laboratories occurred, ii) which could reasonably have caused the Adverse Analytical Finding”. If the Rider establishes this, the burden shifts to the UCI to prove that the departure did not cause the Adverse Analytical Finding.
66. As regards Article 3.2.3 ADR it follows that i) if the Rider establishes a departure from any other rule set forth in the Anti-Doping Rules, or any International Standard or UCI Regulation incorporated in the Anti-Doping Rules ii) which could reasonably have caused an anti-doping rule violation based on an Adverse Analytical Finding or other anti-doping rule violation, then the UCI shall have the burden to establish that such departure did not cause the Adverse Analytical Finding or the factual basis for the anti-doping rule violation.
67. As previously set forth by this Tribunal, CAS case law has further clarified the above prerequisites as follows:³

“Therefore, the Panel deems a mere reference to a departure from the ISL insufficient, in the absence of a credible link of such departure to a resulting Adverse Analytical Finding. In other words, in order for an athlete to meet his/her burden and thus effectively shift the burden to an anti-doping organization, the athlete must establish, on the balance of probabilities, (i) that there is a specific (not hypothetical) departure from the ISL; and (ii) that such departure could have reasonably, and thus credibly, caused a misreading of the analysis. Further, the Panel remarks that such athlete’s rebuttal functions only to shift the burden of proof to the anti-doping organization, which may then show, to the Panel’s comfortable satisfaction, that the departure did not cause a misreading of the analysis.”

iv) Position of the Single Judge

68. The Rider raised allegations on the temperature during storage and transportation time of samples number 7 and 8, and argued that it is highly likely that the abnormalities found in samples 7 and 8 were caused by haemolysis (or partial haemolysis) caused by the low temperatures down to 2°C and 0°C. The Rider did not identify any specific procedural departures from the International Standard for Laboratories or any other rule set forth in the Anti-Doping Rules.

³ UCI ADT 05.2016, *UCI v. Jure Kocjan*, para 64 and UCI ADT 09.2017, *UCI v. Nicola Ruffoni*, para 53 quoting CAS 2013/A/3112, *WADA v. Lada Chernova & RUSADA*, para 85.

69. The Single Judge finds that the World Health Organisation's *"Manual on the management, maintenance and use of blood cold chain equipment"* does not constitute an applicable rule (or manual) to the ABP handling process or the merits of this case. Though, the Single Judge understands the Rider's reference to the World Health Organisation's Manual as a part of the Rider's argumentation that full blood samples shall not be exposed to temperatures below 2°C.
70. It follows from the WADA ABP Operating Guidelines (version 6.0 January 2017 and version 6.1 July 2018) *Part Three: Mandatory Protocols; 3.1: Collection, Storage and transport of ABP blood Samples (ISTI Annex K)*, that *"Whole blood Samples shall not be allowed to freeze at any time"* (K.2.3) and that *"A temperature data logger shall be used to record the temperature from the collection to the analysis of the Sample"* (K.2.4).
71. It is confirmed in the Laboratory Documentation Package for both samples 7 and 8 that a data logger was used, that the temperature during transport was correct, and that the Blood Stability Score (BSS) was ok. It is also documented that the lowest temperature was 2°C (sample 8) and 0°C (sample 7), and from that it is clear that the samples were not exposed to freezing. The Expert Panel - as mentioned above - emphasized that rules and procedures were followed and that the temperature during transport was correct.
72. Based on all the submissions, documentation and evidence before her, the Single Judge concludes that the Rider did not establish a departure from the International Standard for Laboratories or any other rule set forth in the Anti-Doping Rules, or any International Standard or UCI Regulation incorporated in the Anti-Doping Rules, let alone a departure that *"could reasonably have caused the Adverse Analytical Finding"*; nor did the Rider set forth any other potential legal basis on which his arguments may rely.
73. The Rider's arguments are hereby dismissed, and the analytical data of samples number 7 and 8 in the Rider's ABP must stand.

c) Requirements of the ABP data

74. As set forth by the UCI in the Petition, the fundamental requirement of establishing an anti-doping rule violation on the basis of a longitudinal profile is that:

"[...] all experts – independent from each other – come to the conclusion that doping is a plausible and likely explanation for the abnormal variation and that there is no other plausible cause ascertained with a significant degree of probability".⁴

75. As previously emphasised by this Tribunal⁵ in quoting CAS:⁶

"a pitfall to be avoided [in the context of the ABP] 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". Concretely this has been said in legal literature to mean 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."⁷

⁴ CAS 2010/A/2174, *Francesco De Bonis v. CONI & UCI*, para 4.4.2 (b).

⁵ UCI ADT 03.2017, *UCI v. Isabella Moreira Lacerde*, para 64 and UCI ADT 06.2017, *UCI v. Alex Correia Diniz*, para 82.

⁶ CAS 2016/O/4464, *IAAF v. ARAF & Ekaterina Sharmina*, para 150.

⁷ Id. quoting Marjolaine Viret (2016), *Evidence in Anti-Doping in the Intersection of Science and Law*, T.M.C Asser Press, The Hague, p. 774.

76. It has further been stated by this Tribunal, that since the mere fact that the Rider's haematological values are abnormal is no proof of doping, the UCI must both demonstrate that doping is a plausible source for the abnormal ABP values, as well as "establish – in principle – that all other alternative explanations for these values can be excluded. This puts the UCI in a difficult evidentiary position".⁸ As previously emphasized by this Tribunal,⁹ this position has been described, and solved, by a CAS Panel as follows (CAS 2011/A/2384 & 2386, *UCI & WADA v. Alberto Contador Velasco & RFEC*, para. 252 et seq.):

"The exceptions concern cases in which a party is faced with a serious difficulty in discharging its burden of proof ("état de nécessité en matière de preuve", "Beweisnotstand"). A cause for the latter may be that the relevant information is in the hands or under the control of the contesting party and is not accessible to the party bearing the burden of proof (cf. ATF 117 Ib 197, 208 et seq.). Another reason may be that, by its nature, the alleged fact cannot be proven by direct means. This is the case whenever a party needs to prove 'negative facts'. According to the Swiss Federal Tribunal, in such cases of "Beweisnotstand", principles of procedural fairness demand that the contesting party must substantiate and explain in detail why it deems the facts submitted by the other party to be wrong (ATF 106 II 29, 31 E. 2; 95 II 231, 234; 81 II 50, 54 E 3; FT 5P.1/2007 E. 3.1; KuKo-ZGB/Marro, 2012, Art. 8, no 14; CPC-Haldy, 2011, Art. 55, no 6). The Swiss Federal Tribunal has described in the following manner (ATF 119 II 305, 306 E 1b) this obligation of the (contesting) party to cooperate in elucidating the facts of the case:

"Dans une jurisprudence constante, le Tribunal fédéral a précisé que la règle de l'art. 8 CC s'applique en principe également lorsque la preuve porte sur des faits négatifs. Cette exigence est toutefois tempérée par les règles de la bonne foi qui obligent le défendeur à coopérer à la procédure probatoire, notamment en offrant la preuve du contraire (ATF 106 II 31, consid. 2 et les arrêts cités). L'obligation, faite à la partie adverse, de collaborer à l'administration de la preuve, même si elle découle du principe général de la bonne foi (art. 2 CC), est de nature procédurale et est donc exorbitante du droit fédéral – singulièrement de l'art. 8 CC –, car elle ne touche pas au fardeau de la preuve et n'implique nullement un renversement de celui-ci. C'est dans le cadre de l'appréciation des preuves que le juge se prononcera sur le résultat de la collaboration de la partie adverse ou qu'il tirera les conséquences d'un refus de collaborer à l'administration de la preuve."

77. As previously stated by this Tribunal "it follows from the above that difficulties in proving "negative facts" result in a duty for the party not bearing the onus of proof to cooperate in establishing the facts. That party – i.e. the Rider – must cooperate in the investigation and clarification of the facts of the case. It is up to him to submit and substantiate other plausible sources for the abnormal values. It will then be up to the UCI to contest those other alternatives and, ultimately, for the Single Judge to evaluate the evidence before him in relation to the various scenarios. Nonetheless, the burden of proof, i.e. the risk that a certain scenario cannot be established or discarded, remains with the UCI."¹⁰ This does not mean, as it was argued by the Rider that the required standard of proof on the Rider's part shall be whether the Rider has established that a certain scenario put forth "cannot be ruled out". It does mean, as stated in the Diniz-case cited above, that the standard of proof on the Rider's part is that the Rider shall "submit and substantiate other plausible sources for the abnormal values". Then, "It will be up to the UCI to contest those other alternatives and, ultimately, for the Single Judge to evaluate the evidence before him in relation to the various scenarios."¹¹ At the end of the day, it is for the Single Judge to decide, if the UCI has fulfilled its

⁸ UCI ADT 06.2017, *UCI v. Alex Correia Diniz*, para 68.

⁹ *Ibid.*

¹⁰ *Ibid.*, para 68-69.

¹¹ *Ibid.*, para 69.

burden of proving, to the comfortable satisfaction of the Single Judge, that the Rider has committed a violation of the anti-doping rules.

d) Were the abnormalities in the Rider's ABP established?

78. The ABP in the case at hand is based on the Expert Panel's evaluation of 9 valid samples,¹² the documentation of which was included as evidence in the UCI's submissions. As reported by the Expert Panel, the main important abnormality in the Rider's ABP is the high haemoglobin (HGB) concentration in sample 8 (16.4 g/dL) paired with low reticulocytes (0.37%) leading to an increased OFF-score (127.5), and that sample 7 (HGB 15.6 g/dL; RET% 0.55; OFF-score 111.5) shows a *"similar, although still less pronounced pattern, which develops further in sample 8"*.
79. The Rider's ABP was flagged twice with abnormalities at 99% specificity for sample 8 (lower limits reticulocytes and upper limit OFF-score), and the marker values for reticulocytes and OFF-score were also abnormal at >99,5% specificity. The Expert Panel explained at the hearing that the likelihood of finding an off-score at 127.5 in an undoped male athlete is somewhere between 1:1000 and 1:10000.
80. The Expert Panel in Expert Opinion #1 also stated that: *"in our view, the data of the athlete bears highly abnormal features for which no explanation is available at this stage [...]. We therefore conclude that it is highly likely that a prohibited substance or prohibited method has been used and that it is unlikely that the passport is the result of any other cause."*
81. The Rider did not challenge the Expert Panel's conclusion as to the presence of the abnormalities in the Rider's profile.
82. In light of the above, and after examining the documentation in the case at hand, the Single Judge finds the Expert Panel's opinion to be well-founded, logical and compelling, thus the Single Judge concludes that important abnormalities did exist in the Rider's haematological profile.

e) Were the abnormalities in the Rider's ABP caused by the Use of a Prohibited Substance or Prohibited Method?

83. As stated above, it is not enough to establish that abnormalities exist in the Rider's haematological profile. The UCI must also establish that the abnormalities were caused by the Use of a Prohibited Substance or Prohibited Method, and not by any other cause.
84. The UCI has submitted (based on the Expert Panel's opinions) that the abnormal values in the Rider's haematological profile can be explained with the use of a prohibited substance or prohibited method.
85. The Rider has submitted (based on Expert's reports and a test performed on the Rider) two alternative explanations for his abnormal values. The Rider alleges that the values in his ABP can be explained by:
 - a Parvovirus B19 infection, or
 - in vitro haemolysis of the Rider's samples number 7 and 8; or

¹² The Expert Panel in Expert Opinion #1 mentioned that *"three additional samples had been collected and the process was repeated (individual review). The additional samples and the related documentation did not change our initial, individual opinions."* Those three additional samples (and their analytical data) were not included in the case at hand.

- a combination of the two scenarios.

Parvovirus B19 infection

86. It is not in dispute that the Rider has previously been infected by a Parvovirus B19 infection, since the presence of IgG antibodies indicates previous infection and immunity with respect to Parvovirus B19.

i) Position of the Rider

87. The Rider submitted that there is a high likelihood that the abnormal values in his ABP can be explained by a parvovirus B19 infection which the Rider was infected by in January 2017 at the time of the ABP abnormalities. The infection led to temporary erythropoietic suppression with low reticulocytes, causing the increase in the OFF score. The infection was confirmed in a serological test, taken on 21 March 2018, in which IgG antibodies against parvovirus B19 were present.
88. The Rider denied that he has ever used doping. The Rider explained that he felt ill on 14 January 2017. On that day he had a very intense training session, and in the afternoon he had a strong headache and fever. The Rider discussed this issue with the team doctor. On 25 January 2017 the Rider travelled to Mallorca to participate in the race starting on 26 January 2017. The following days up to 29 January 2017 the Rider was feeling tired and fatigued, almost exhausted. The Rider withdrew from 3 of the 4 competitions. The Rider placed 12th in one of these races where “*the rhythm and the pace of the competition was quite slow and was not particularly intense*”.
89. The Rider submitted an Expert Report from Dr. Carlos Panizo Santos and Dr. José Luis del Pozo dated 7 September 2018, where it is stated as follows:

“[...] Surprisingly, and contrary to universal bibliography for any analytical test development, authors of this paper do not show any data about possible causes that can imply false positives or negatives of the proposed test. In our opinion and to the best of our knowledge analytical data from laboratory tests performed to the athlete support that we are facing what we know as a false positive of the laboratory tests used in the biologic passport caused by a primo-infection with Parvovirus B19. [...]

Although high-performance athletes are generally not clinically immune deficient, there is evidence that several immune parameters are suppressed during prolonged periods of intense exercise training. These include decreases in neutrophil function, serum and salivary immunoglobulin concentrations and natural killer cell number and possibly cytotoxic activity in peripheral blood (4). It is also well known that exercising during an infection can increase the risk of secondary complications, such as viral myocarditis, post-viral fatigue syndrome or others (5). Although in immunocompetent subjects, transient erythropoietic suppression will only occur once upon parvovirus B 19 primary infection, secondary parvovirus B 19 infection has been reported in immunocompromised patients. Reactivation of latent virus in the setting of waning IgG antibody is likely given that persistent and relapsing viremia is described in immunocompromised patients (6). In our opinion these facts explain the persistence of the analytical disturb on blood samples extracted with less than one-month interval to an athlete submitted to a high training program, thus non-completely immunocompetent and suffering from an acute Parvovirus B 19 infection. [...]

Major criticism should be done to lean on this paper [Anderson MJ, et al.] as authors obtained general conclusions of blood changes for infected patients from only four infected healthy volunteers blood analysis. The main consistent finding of this work in infected volunteers during a period of at least one week, during which reticulocytes were not detected, demonstrates that erythropoiesis in normal individuals is susceptible to interruption by Parvovirus B19 infection. Other conclusions should be taken with caution and in our opinion have not enough scientific power to sustain the affirmations of G. d’Onofrio, M. Audran and Y.O. Schumacher. We believe that the work by Rodriguez Bandera Al, et al. much better reflects changes occurring other than reticulocytopenia in the blood of infected

people by parvovirus B19 (8). This recent work described the epidemiologic, clinical, and laboratory characteristics of acute parvovirus B19 infection in 49 adults, being the largest series published to date. Anemia was detected in only 12.2% of patients; this rate is much lower the rate reported by others (7, 9). We do not consider that changes in the hemoglobin rate seen in the athlete's blood in the refereed samples are statistically significant and many causes pre- and post- analytical could justify the reported scarce changes such as dehydration at the moment of analysis or many others (10). Similarly, in the investigation by Rodriguez Bandera Al, et al. white blood cell alterations were found just in a minority of the patients, being lymphopenia, monocytosis, and contrary to previous reports, neutrophilia the most common blood alterations detected. Besides, but also contrasting with previous reports, three cases of thrombocytosis rather than thrombocytopenia were noted. Thus, at the light of the recent scientific knowledge, anemia or typical changes in blood cells or platelets usually induced by virus should not be considered for assuming the presence or absence of Parvovirus B19 infection. Again, we disagree with G. d'Onofrio, M. Audran and Y.O. Schumacher. As exposed, the most common finding on mature erythrocytes or non-red blood cells in individuals acutely infected by parvovirus B19 is that no relevant changes occurs. This is just what authors of the report "Evaluation of athlete's argument" have confirmed in the reviewed samples of the athlete and shown in Table 1 of their report. [...]

We fully disagree with this statement [on the Rider's performance] by G. d'Onofrio, M. Audran and Y.O. Schumacher. Since first reports about the infection by Parvovirus B19 two clinical forms of presentation of the disease had been repeatedly described. One -the most common- is asymptomatic infection. Subclinical infection by Parvovirus B19 is a frequent finding in both children and adults. 25% of infected subjects have specific symptoms and less than half of individuals with positive IgM show typical signs such as rash or arthralgias (11). So, nowadays, the clinical picture is not required for diagnosis, which is to be based on specific immunoglobulin pattern and more recently on PCR demonstration of the virus on the acute phase of disease. Speculation about the endurance or the race position achieved in competition of the athlete as an argument for confirm or reject the infection seems scientifically unacceptable."

90. Dr. Carlos Panizo Santos stated in his Expert Report dated 30 October 2018:

"[...] we sustain and demonstrate that rider's abnormalities shown in his ABP can resemble or even be identical to that shown in people suffering from primo-infection with this virus. In addition, in biology it has not yet developed the analysis for any measurement that do not have a proportion of false positives or negatives. This is, to the best of our knowledge, it do not exist an analytical achieving 100% sensitivity and 100% specificity. Surprisingly authors of the report describing ABP and its role in detecting doping (some of them signing the UCI expert reports) do not show these values for the test in the paper, and, again to the best of our knowledge, no publication about has been reported until date, neither about false positives or negatives of the technique. So we are very surprised about the UCI experts position trying to discredit without scientific proof or bibliographic basis our hypothesis, this is, that the explanation for the abnormal values could be a false positive of the technique caused by a parvovirus infection.

Obviously, it was not be possible to verify with the "gold standard" tests (i.e. serological analysis of IgM or direct PCR detection of the virus) that the athlete presented with the infection in January 2007 because the time elapsed between the blood extraction and the communication of the sanction was so long that prevented the necessary tests. It is well known that the evolution of the infection from the acute phase in such time normalizes specific IgM and viremia. On the other hand, no blood sample was saved (as this is the UCI stablished routine procedure when performing the ABP analysis) to be able to checking the abnormal samples with the "gold standard" tests. Besides, it is important to note that ABP test do not demonstrates unequivocally (this is, it do not directly measure the presence of) the suspected doping agent or blood transfusion. What we are trying to do, both the experts of the UCI and ourselves is, from the indirect results of some blood tests try to attribute these results to one cause or another. [...]"

91. The Rider also submitted that he does not understand why it took such a long time - almost one year - for the UCI to inform the Rider of the discrepancy of values in his ABP. An IgM¹³ test would have been viable if conducted within 4 months from the discrepancy of values. If the Rider had been notified of the abnormalities in due time, the IgM testing would have been viable in order to dispute and to question the negative evidence that was put forward to the detriment of the Rider. It is not the Rider's responsibility, that he was not notified timely. The Rider had to work out the defence retrospectively by looking at the other indexes, and established as a result of that a high degree of probability.

ii) Position of the UCI

92. The Expert Panel evaluated and gave its opinion on the parvovirus B19 scenario in Expert Opinion #2. The Expert Panel's opinion on this scenario was further elaborated on by Dr. Schumacher at the hearing. It has been demonstrated that when a person is infected by parvovirus B19, the infection leads to erythropoietic suppression with temporary cessation of red cell production. This becomes visible through reduced reticulocyte counts. In most cases, the condition is self-limiting; reticulocytes will drop for 4-8 days, and with a little delay the HGB will drop or be unchanged. In most healthy individuals infected by parvovirus there will be a mild/low HGB drop. It was emphasized at the hearing, that when EPO is administered, the reticulocytes will be low and the HGB will be much higher. Those changes of values are seen in the Rider's ABP. In the Rider's ABP the HGB is the highest at the time where the Rider claims he was infected by parvovirus. It was explained by Dr. Schumacher at the hearing that if the Rider had been infected by parvovirus at the specific time in January 2017, he would have had unchanged or lower HGB at that specific time. It was also explained that nowhere in the literature cited by the Rider is an increase in HGB observed.
93. The Expert Panel highlighted that about 75% of healthy adults at age 20-25 are parvovirus B19 IgG positive, meaning that the prevalence is considerable.
94. The Rider's experts raised during the written proceedings a criticism on the Expert Panel's view on white blood cell alterations during a parvovirus B19 infection by stating that not every patient in the referred studies showed changes in white blood cells. Dr. Schumacher explained at the hearing that this is caused by the difference between a retrospective and a prospective study, and that in the prospective study (the Anderson study¹⁴) all patients showed changes in the white blood cells. It was also explained that 30-100 % of the studied patients (meaning all the studied patients in all the scientific literature referred to in the case at hand including both retrospective and prospective studies) showed signs of white blood cell alterations during infection, and that, in general, the retrospective studies (where you look back) will probably not show white blood cell abnormalities.
95. Dr. Schumacher emphasized that no markers on immune response are seen in the Rider's white blood cells during the time of the alleged parvovirus infection.
96. Dr. Schumacher explained that the likelihood of an OFF-score at 127.5 (as seen in the Rider's ABP) in an undoped male athlete is somewhere between 1:1000 and 1:10000.

¹³ Within a few days of primary parvovirus B19 infection, IgM antibodies will appear and remain detectable for about 2-4 months.

¹⁴ Anderson MJ, Higgins PG, Davis LR, Willman JS, Jones SE, Kidd IM, et al. *Experimental parvoviral infection in humans*. J Infect Dis. 1985 Aug;152(2):257-65.

97. Dr. Schumacher explained that false positive analysis is comprised in the specificity given in the profile (in the reference ranges in the ABP), and that confounding factors such as immunosuppression of the athlete were considered when establishing the reference ranges.
98. At the hearing, the UCI declared the submissions from the Rider on his symptoms - the fact that the Rider withdrew from 3 of the 4 competitions and the explanation on the pace of the race - inadmissible since the arguments had not been put forward before the hearing, and were therefore submitted too late in the proceedings. In response to the Rider's arguments, the UCI submitted that the Rider, who is a young rider, demonstrated good form at the race on 28 January 2017 where the Rider was placed 12th only 9 seconds behind Tim Wellens and Alejandro Valverde in an uphill finish. Also, the UCI submitted that the fact that a rider does not finish a race is no proof of lack of form.

In vitro haemolysis

i) Position of the Rider

Haemolysis

99. The Rider argues that the abnormal off-scores in the Rider's ABP can be explained by a haemolysis process which altered samples number 7 and 8 and which destructed physiological conditions that prevented accurate analysis of the blood samples. More precisely, the Rider argued that it is "highly likely" "and that it cannot be ruled out", that the low levels in reticulocyte percent (RET%) observed in the athlete's sample on 19 January 2017 and 25 January 2017, accompanied by values of Hemoglobin (HGB) close to the upper limits, but still within the normal range, that resulted in high OFF-scores, were caused by blood sample haemolysis, by partial haemolysis or by haemolysis in combination with a parvovirus B19 infection. It was stated by the Rider's expert that haemolysis is a very common event in laboratory medicine, as it may occur for several causes, as explained in the written proceedings and at the hearing.
100. Prof. Pellegrini explained at the hearing that when there is haemolysis, the red blood cell count (including reticulocytes) will decrease.
101. Prof. Silvia Pellegrini stated in her Expert report dated 13 September 2018:

"[...] Hemolyzed blood samples are specimens in which the red blood cells have been partially destroyed. Destruction of red blood cells has two main consequences: 1) decrease in red blood cell (including reticulocytes) count; 2) release of cell-free hemoglobin, whose concentration in turn may affect results of many lab tests, including hematocrit (1). [...]"

Most of the time, a blood sample is hemolyzed because best practices are not followed during the blood drawing. The most common reason of hemolysis during blood collection is the presence of a too great vacuum in the vein when the needle is inserted, that is, the force that draws the blood from the vein to the tube is too strong. This causes the blood cells to be drawn to the outside of the vein and into the tube too quickly. Other common reasons for hemolysis are: 1) using a smaller size needle, thus forcing blood cells through an opening that is too small for them causing their destruction; 2) using a too large tube for collection that creates added vacuum capacity or a too small tube in which the blood cells become too compressed; 3) drawing blood too slowly, as it happens when the needle is not well positioned inside the vein or the vein is too small or the vein breaks during the drawing; 4) shaking the blood sample tube; 5) improper conservation and storage of the blood sample tube (6). [...]"

In light of all the above considerations, particularly relevant for the present case is that not only red blood cells are destroyed during hemolysis, but also reticulocytes, whose count is affected as well (7,8).

The effects of hemolysis on red blood cell and reticulocyte count and hemoglobin concentration have been experimentally tested by Lippi and colleagues (7). These authors measured red blood cells (reticulocytes and mature RBC) in eight blood samples that were each subdivided into three sub-samples: 1) with no hemolysis; 2) with moderate hemolysis ("A"); 3) with severe hemolysis ("B"). Hemolysis in samples "A" and "B" was induced by mechanical trauma by passing the blood respectively 5 times ("A") and 10 times ("B") through a syringe equipped with a 30-gauge, 0.3x8 mm needle (PicIndolor, Artsana S.p.a.). As figure 1 below clearly shows, reticulocyte count dramatically dropped with increasing hemolysis in ALL the samples.

[figure 1 omitted]

The above results clearly indicate that the low levels in reticulocyte percent [ret%] observed in the athlete on January 19 and January 25, 2017, accompanied by values of Hemoglobin [HGB] close to the upper limits, but still within the normal range, that resulted in high OFF scores, may have been very well induced by blood sample hemolysis. Indeed, hemolysis is a very common event in laboratory medicine, as it may occur for several causes, as explained above."

Experiment performed on the Rider

102. The Rider had an experiment conducted at the *Unità Operativa Laboratorio di Analisi Chimico Cliniche of the Azienda Ospedaliera Universitaria Pisana* on 11 September 2018. Prof. Pellegrini concluded in her Expert Report dated 13 September 2018 on this experiment that:

"[...] In summary, in line with what reported in the scientific literature, we experimentally demonstrated - in the individual under investigation - that blood sample hemolysis does result in blood alterations, specifically, in an increase in the OFF score. These alterations in blood parameters are indistinguishable from those that may be due to the assumption of pharmacological doping agents or following blood transfusions."

103. Prof. Pellegrini further stated in her Expert Report dated 13 September 2018:

"[...] In order to corroborate with empirical data the results reported in the literature cited above (7, 8), we decided to perform an experiment directly on Mr. Rosan Garcia, by adopting the same experimental paradigm used in the Lippi's paper (7).

[Description of the experiment performed on the Rider; inter alia on how the blood was drawn and how the haemolysis was induced and measured (description omitted).] [...]

As expected, after hemolysis induction, the hemolysis index increased from 31 mg/dL to 2075 mg/dL, thus proving the efficacy of the method applied to induce the hemolysis. In line with data from the literature, the Red Blood Cells decreased from $5.37 \times 10^6/\mu\text{L}$ to $5.24 \times 10^6/\mu\text{L}$, the reticulocyte percent decreased from 0.97% to 0.88 % and the Hemoglobin concentration increased from 16.0 g/dL to 16.6 g/dL. As a consequence, the OFF score, after the hemolysis induction, increased from 100.9 to 109.7. [...]"

104. The experiment performed on the Rider showed, among other values, the following results:

Parameter	Basal sample	Induced haemolysis
Hemolysis index value	31 mg/dL	2075 mg/dL
MCHC index	34.6 g/dL	37.6 g/dL (flagged)
HGB	16.0 g/dL	16.6 g/dL
RET absolute value	$52.10 \times 10^3/\mu\text{L}$	$46.10 \times 10^3/\mu\text{L}$
RET%	0.97	0.88
RBC	$5.37 \times 10^6/\mu\text{L}$	$5.24 \times 10^6/\mu\text{L}$
OFF-score	100.9	109.7

“Hemolysis index”

105. Prof. Pellegrini stated that the haemolysis scenario cannot be ruled out because haemolysis parameters were not well measured in the samples, since MCHC is not a good parameter to measure haemolysis in full blood “because its variation is overlapping, since 54 % of haemolysed samples fall in the normal range of MCHC values (meaning as not haemolysed samples)”. (Reference made to table of “Data of hemolyzed and non-hemolyzed specimens by hematologic parameters” from article by Gilsung Yoo et al., *Scoring System for Detecting Spurious Hemolysis in Anticoagulated Blood Specimens*). Prof. Pellegrini argued that even if the MCHC value did not increase in samples number 7 and 8, haemolysis cannot be ruled out since the only safe index of haemolysis is the “Hemolysis index”. It was stated that haemolysis is a highly likely and valid explanation for the abnormalities in the Rider’s ABP, and that haemolysis can only be ruled out by measuring the “Hemolysis index” which was not collected for samples number 7 and 8.

106. Prof. Silvia Pellegrini stated in her Expert report dated 28 October 2018:

“As a matter of fact, while increased MCHC may be suggestive of a potential haemolysis, the only reliable method to measure haemolysis is by calculating the haemolysis index in plasma (1). [...]

after the experiment, MCHC changed from 34.6 g/dl to 37.6 g/dl, slightly exceeding the upper limit of the MCHC normal range (36 g/dl), while the haemolysis index changed from 31 mg/dl to 2075 mg/dl, thus proving that MCHC is a quite poor sensitive marker of haemolysis. [...]

the documentation provided does not report all the required information to sustain the UCI’s expert panel conclusion. As a matter of fact, the documentation packages concerning the blood collection for both sample 7 and 8 merely report the time of collection, the name of collector and, only for sample 8, but not for sample 7, the place of collection. Furthermore, several factors may affect venous blood drawing, including vein size, position of the needle inside the vein, blood flow through the butterfly needle and tubes, position of the patient’s arm (e.g., fist of the hand), also when the sample is taken by expert phlebotomists, resulting in haemolysis (2, 3, 4). [...]

[Table 1 omitted][...]

[Tables on sample 7 and sample 8 omitted][...]

This statement [by the Expert Panel] is not supported by the scientific literature, as shown in the following study by Makhro et al, 2016 (6). The figure reported below shows how the different blood cell parameters change over time in samples stored at +4°C (in blue) or +22°C (in red) (6).

[Figure omitted]

The graphs clearly indicate that while the number of mature red blood cells (RBC) does not change over time at either temperature, the absolute number of reticulocytes (RC) drops significantly in less than 20 hours at both temperatures, thus resulting in a relevant decrease of their percentage, though with discrepancies between analyzers (7). [...]

The Rider and the Rider appointed expert’s overall conclusion on the haemolysis scenario

107. Prof. Pellegrini in her Expert Report dated 28 October 2018 concluded that:

“[...] based on the examination of the provided documentations regarding blood sample storage and transportation, for the reasons detailed above, in our expert opinion haemolysis remains a valid and highly likely explanation for the anomalies found in samples #7 and #8 of [the Rider’s] biological passport. Haemolysis can be ruled out only by measuring the haemolysis index, which has not been reported here for either sample #7 or #8.”

108. Prof. Pellegrini also stated at the hearing that even if the MCHC value did not increase in samples number 7 and 8, haemolysis cannot be excluded and ruled out.
109. Prof. Pellegrini emphasized that the Rider's HGB values were never above the upper limit.
110. In overall conclusion the Rider stated that the probability demonstrated by the Rider is higher compared to the one stated by the UCI. The probability crossmatches with objective data. This objective data also crossmatches with the Rider's physiological conditions, with parvovirus, with the IgG seropositivity as well as the Rider's physiological conditions upon collection of the blood samples, and with regard to the probability of the haemolysis. In summary, the Rider concluded that on a balance of probability haemolysis cannot be excluded.

ii) Position of the UCI

Haemolysis

111. The Expert Panel, in Expert Opinion #3, gave its opinion on the Rider's arguments regarding the haemolysis scenario for samples 7 and 8. The Expert Panel stated the following:

"[...] In our view, based on the scientific literature, there is no evidence that samples 7 and 8 in the passport were affected by haemolysis. To the contrary, we can definitely exclude that a significant hemolysis was present in those samples on the basis of the Sysmex results from the documentation packages. The key fact here is that the index MCHC (mean corpuscular haemoglobin concentration) is not increased in any of the mentioned tests. Increased MCHC is a well-known index of haemolysis in EDTA-collected samples, and it is universally used for this purpose in haematology laboratories. Most instruments automatically flag samples with increased MCHC to alert about this potential confounder.

*MCHC is an index which measures the concentration of hemoglobin (g/dl) within a red blood cell. [...] The formula is $MCHC = [(Haemoglobin/Haematocrit)*100]$. Haematocrit is measured in the Sysmex instruments from the sum of electrical pulses produced by red blood cells when they cross an electrical current; it is strictly correlated to the number of red blood cells and their size (MCV).*

In the case of haemolysis, a proportion of red blood cells are destroyed, so that the denominator of the formula described above decreases and the value of MCHC artificially increases. The MCHC reference values range between 32 and 36 g/dl. In samples 7 and 8 of the current profile, the values are 33.7 and 34.5 g/dl, in line with the MCHC values of the other samples in this passport. This excludes that any of these samples was even partially haemolysed. [...]"

112. Prof. d'Onofrio emphasized at the hearing, that in haemolysed samples, the measured HGB will be normal/the same, but haematocrit will be low/reduced since some red blood cells are broken in the tube and the red blood cell count is reduced.
113. Prof. d'Onofrio also emphasized at the hearing, that according to MCHC, the Rider's samples 7 and 8 are not haemolysed.

Experiment performed on the Rider

114. As regards the experiment performed on the Rider, the Expert Panel noted the following in Expert Opinion #3:

"[...] Dr Pellegrini describes an experiment in which the athlete's sample underwent manipulation to obtain a mild haemolysis. Before the haemolysis treatment, the MCHC index is 34.6 g/dl, which is normal. In the haemolysed sample, the MCHC is abnormally increased to 37.6 g/dl, which is flagged automatically (bold characters and an asterisk in the instrument report); it is automatically classified as abnormal. The MCH value is also moderately increased from 29.8 to 31.7. This experiment clearly

demonstrates the effect of haemolysis in blood samples submitted to automated analysis and further excludes the presence of any relevant haemolysis in in samples 7 and 8 of the present profile.

Haemolysis and reticulocyte percentage

We agree with Dr Pellegrini about the fact that haemolysis causes a decrease in the number of red blood cells, including reticulocytes. However, the destruction is not selective, i.e. mature, normal red cells and reticulocytes are equally concerned by the phenomenon, with parallel decrease and no change in their relative proportion, which is the relevant variable in the profile (measured in %). Thus, the presence of haemolysis does cause a decrease of the absolute number, but does not change the percentage of reticulocytes, which is the parameter used in the ABP. [...]

115. The Expert Panel concluded, in Expert Opinion #3, on the RET% in the Rider's experiment of 11 September 2018:

"[...]The variation of reticulocyte percentage from 0.97% to 0.88% after haemolysis in Dr Pellegrini experiment is 0.09, which is within the accepted limits of analytical variability. This is confirmed by WADA ABP Guidelines. In fact, WADA ABP guidelines require a second analysis of each sample to validate analytical precision. According to these Guidelines, in order to accept the results the absolute difference between the first and the second reticulocyte count shall be less equal or than 0.15 (when the result is lower or equal to 1.00%). This further supports that the reticulocyte variation of 0.09 in the haemolysed sample of the experiment is natural variation and not effect of the haemolysis. [...]"

116. Prof. d'Onofrio emphasized at the hearing that the decrease in reticulocytes (from 0.97% before the induced haemolysis to 0.88% after the induced haemolysis) seen in the experiment on the Rider is very low and that the difference is within the acceptable variation according to WADA ABP Guidelines. As it is shown by the "induced sample"; the RET% is not altered by haemolysis.

"Hemolysis index"

117. The Expert Panel stated that the "Hemolysis index" is not relevant in the present case. According to recommendations, HCMC is the standard reference.
118. Prof. d'Onofrio referred to an Italian paper on the *value of the "hemolysis index"* by Lippi et al. where the recommendation on the "Hemolysis index" is that this index is "not recommended" in haematology (different recommendation for clinical chemistry).

The UCI and the Expert Panel's overall conclusion on the haemolysis scenario

119. The Expert Panel, in Expert Opinion #3, finally concluded after their review of the Rider's additional arguments submitted on 14 September 2018:

"[...] that the newly submitted documents do not change our evaluation of the athlete's profile and we still consider that based on the data available at this stage, it is highly likely that a prohibited substance or prohibited method has been used and that it is unlikely that the passport is the result of the causes highlighted by the defense experts."

120. Prof. d'Onofrio emphasized at the hearing that there is no evidence of haemolysis in the case at hand; that the MCHC index is a clear tool to detect haemolysis; and that haemolysis is not common in anti-doping because laboratories are very experienced, athletes' veins are usually good due to the athletes' muscles, needles are large etc. Also, he explained that haemolysis is visible in the tube after centrifugation of the blood, since the colour of the blood will change after haemolysis. Also, based on a very long experience, the Expert Panel can say, that haemolysis is a very rare phenomenon in anti-doping.

121. Prof. d’Onofrio also made it very clear that even in a case of haemolysis, haemolysis would not compromise the results of the samples, since haemolysis – in theory – would have reduced the red blood cell count and the reticulocyte count (absolute count per volume), but would not have changed the reticulocyte proportion within the red blood cell population (the RET %). Prof. d’Onofrio also explained that HGB, which is the other ABP parameter, does not change in case of haemolysis.
122. The UCI and the Expert Panel emphasized that there are very stringent, clear and detailed guidelines and technical documents applicable in order to avoid that a haemolysed sample is included in an ABP: in fact the laboratories check that the samples have not been haemolysed when the sample arrives at the laboratory; the ABP’s handling procedure is highly standardised; and pre-analytical factors which might trigger haemolysis, such as blood collection, storage and transport are rigorously regulated by the WADA ABP Guidelines. Also, it was emphasized that all the kinds of uncertainties mentioned in the case at hand are already within the “red lines” (reference ranges) in the biological passport, and that the laboratory documentation packages for samples 7 and 8 confirm that the samples were collected and stored in accordance with these regulations. Also the UCI stated that in the case at hand there is no indication that the rules were not followed and no indication that even assuming that the rules were not followed, that any such deviation may have caused the haemolysis and ensuing parameter results which led to the ADRV.
123. The UCI submitted that the MCHC index is unproblematic and consistently used in regard of samples of full blood.
124. The UCI submitted that the likelihood of the haemolysis scenario is close to zero.
125. The Expert Panel explained about the Rider’s values of HGB, that the Expert Panel in their evaluation of the Rider’s ABP also took into account the Rider’s values at comparable timepoints e.g. prior to major races, e.g. prior to the Vuelta a España. Not at any point was the Rider’s level of HGB as high as in sample 8.
126. The UCI submitted that even assuming that samples 7 and 8 were haemolysed, that conclusion is irrelevant, because of the fact that haemolysis as such does not alter the values relevant in the case at hand meaning the values of HGB and the concentration of reticulocytes (RET%).

(iii) Position of the Single Judge

The Single Judge’s position on the parvovirus B19 scenario

127. As regards the UCI’s declaration of the inadmissibility of the Rider’s account of facts - the fact that the Rider withdrew from 3 of the 4 competitions and the submission on the pace of the race on 28 January 2017 - the Single Judge confirms that, as a matter of principle, each party shall present its factual and legal arguments at the earliest occasion and behaviour such as that of the Rider is against procedural fairness as it is likely to reduce the chance for the other party to duly assess the information and present a substantiated response. In the present case, however, the Single Judge notes that the UCI was capable of providing its oral comments and drawing comprehensive conclusions on the allegations of illness in January 2017. In addition, the Single Judge remains competent to evaluate the evidentiary weight of such allegations and confirms that, as highlighted on several occasions by this Tribunal¹⁵, such allegations without supporting evidence shall, at best, bear limited evidentiary weight. On the present allegation, the Single Judge finds it unnecessary

¹⁵ See, e.g., ADT, 02.2016, *UCI v. Taborre*, Judgment of 25 May 2016; ADT, 04.2016, *UCI v. Oyarzun*, Judgment of 16 September 2016, para. 68; ADT 04.2018, *UCI v. Padilla*, Judgment of 16 January 2019, para. 69.

to draw conclusions on admissibility and shall rather consider those submissions as having limited evidentiary weight.

128. The Single Judge finds that the Expert Panel's written opinion on the parvovirus B19 scenario, which was further elaborated on and discussed at the hearing by Dr. Schumacher, is well-founded, logical and compelling, and the Single Judge takes note of the fact that it has been well-documented during the proceedings of the case that the changes in blood values during a parvovirus B19 infection are: decrease of reticulocytes (for 4-8 days); followed by a mild/low decrease of HGB or no change in HGB; and that - in all or some studied patients depending on which type of scientific study has been carried out - changes in the values of white blood cells and platelets are observed, taking account of the fact that in the prospective study referred to in the case at hand (the Anderson study) all patients showed variation in white blood cell values during the parvovirus infection.

129. When taking the above mentioned into consideration, and on account of:

- the Rider's blood values in the exact period of time where the Rider alleges he suffered from parvovirus B19 infection, namely in January 2017, in which period sample 7 and sample 8 were taken on 19 and 25 January 2017, changed as follows: reticulocytes decreased to 0.55% (sample 7) and 0.37% (sample 8), HGB increased to 15.6 g/dL (sample 7) and 16.4 g/dL (sample 8) being the highest level of HGB and the fourth highest level of HGB in the Rider's ABP in the period 20 January 2016 until 13 March 2017, those blood values increasing the OFF-score to 111.5 (sample 7) and 127.5 (sample 8); resulting in the Adaptive Model flagging the Rider's profile twice with abnormalities at 99% specificity (lower limit reticulocytes and upper limit OFF-score), the marker values for reticulocytes and OFF-score also being abnormal at >99,5% specificity;
- the high prevalence of parvovirus B19 IgG positivity in the population being about 75 % in adults at age 20-25 and that it is mostly children that are infected;
- the fact that no white blood cell changes were seen in the Rider's white blood cell values at the relevant time (January 2017); and
- the Expert Panel's evaluation of the Rider's explanation on parvovirus B19 (Expert Opinion #2) being that:

"[...] the explanation provided by the athlete's experts presents with substantial weaknesses and therefore represents a very unlikely scenario. It further provides no full explanation of the abnormal pattern highlighted in our previous opinion. In contrast, erythropoietic stimulant intake and subsequent cessation or the recent application of a blood transfusion matches the haematological picture of the profile very well. We therefore conclude that based on the data available at this stage, it is highly likely that a prohibited substance or prohibited method has been used and that it is unlikely that the passport is the result of the causes highlighted by the defense experts";

the Single Judge concludes that it is very unlikely that the abnormalities in the Rider's ABP were caused by a parvovirus B19 infection.

The Single Judge's position on the haemolysis scenario

130. The Rider stated that the samples number 7 and 8 were haemolysed. The Rider argued that the MCHC index is not a reliable index. The Rider based his argumentation on the experiment performed on the Rider and on scientific literature and concluded that the "Haemolysis index" is the only reliable index in relation to haemolysis.

131. The Expert Panel and Prof. Pellegrini agreed that when a blood sample is haemolysed, then the red blood cell count (meaning the absolute number) will decrease.
132. It was demonstrated in the Expert Panel's written opinions and at the hearing, that when a blood sample is haemolysed, then the red blood cell count decrease will not differentiate mature red blood cells and immature red blood cells (reticulocytes); the decrease will be parallel and there will be no change in the relative proportion of mature and immature red blood cells. In other words, and as it has been demonstrated by the Expert Panel; the percentage of reticulocytes (RET%) will not change (significantly) when there is haemolysis. This further means, as it has been demonstrated by the Expert Panel, that even if a blood sample is haemolysed, the haemolysis will not (significantly) affect the RET%.
133. As regards the Rider's claim about the MCHC index, the Single Judge finds that it has not at all been demonstrated by the Rider that the MCHC index is not a reliable index. The Expert's discussion on this subject demonstrated in fact that the MCHC index is indeed a reliable index in full blood samples, and the Rider's arguments should be dismissed.
134. In the experiment performed on the Rider, the MCHC index was 34.6 g/dL in the "basal sample", which is normal. In the "induced haemolysis sample", the MCHC increased to 37.6 g/dL, which is abnormal, and which was flagged. The Single Judge finds that the experiment (and the results of that experiment) does not allow to corroborate an alternative explanation of the abnormal values in the Rider's ABP.
135. The Single Judge also takes note of the Expert Panel's evaluation on the Rider's written arguments on haemolysis being that the Expert Panel concluded (in Expert Opinion #3):
- "[...] that the newly submitted documents do not change our evaluation of the athlete's profile and we still consider that based on the data available at this stage, it is highly likely that a prohibited substance or prohibited method has been used and that it is unlikely that the passport is the result of the causes highlighted by the defense experts."*
136. In conclusion, the Single Judge finds that it was perfectly demonstrated in the Expert Panel's written opinions and by Prof. d'Onofrio's explanations at the hearing that it is very unlikely that the abnormalities in the Rider's APB were caused by in vitro haemolysis, by partial haemolysis or by haemolysis and parvovirus B19 infection in combination.

Doping scenario

137. The Single Judge finds the Expert Panel's opinions, as put forward in the written proceedings and at the hearing in this case, to be well-founded, logical and compelling.
138. The Single Judge takes note of Expert Opinion #1 where the Expert Panel stated on the pattern observed in the Rider's ABP:
- "Such pattern is typically observed when red blood cell mass has been supraphysiologically increased (high haemoglobin) and the organism tries to downregulate this surplus by suppressing its own red cell production (low reticulocyte). This situation is pathognomonic for the use and recent discontinuation of an erythropoietic stimulant or the application of a blood transfusion (1). Sample 7, taken 6 days prior, shows a similar, although still less pronounced pattern, which develops further in sample 8."*
139. The Single Judge takes note of the Expert Panel's evaluation of the athlete's additional arguments (Expert Opinion #3). The Expert Panel concluded:

“We therefore conclude that the newly submitted documents do not change our evaluation of the athlete’s profile and we still consider that based on the data available at this stage, it is highly likely that a prohibited substance or prohibited method has been used and that it is unlikely that the passport is the result of the causes highlighted by the defense experts.”

140. In light of Expert Opinion #1, #2 and #3; in light of all of the above mentioned and everything that has been put in front of her; in light of a doping scenario being consistent with the Rider’s competition schedule, from which it follows that the planned opening of the Rider’s 2017 season was the series of races in Mallorca on 26 - 29 January 2017, those races leading up to a series of races in the early season; and in light of a doping scenario being consistent with the Rider’s good performance in a race in Mallorca on 28 January 2017 (Trofeo Andratx), where the Rider placed 12th in a race with an uphill finish, the Rider being 9 seconds behind the winner (the winner being a top class rider); the Single Judge concludes, that the circumstances do allow to establish a doping scenario in the case at hand.
141. As follows from the Single Judge’s conclusions on the parvovirus B19 scenario (para 127 - 129) and the haemolysis scenario (para 130 - 136), the Single Judge concludes that there is no evidence in the case at hand that renders the doping scenario implausible.

Standard of proof

142. The final question to resolve is, if the UCI has proven to the comfortable satisfaction of the Single Judge that the Rider engaged in doping within the meaning of Article 2.2 ADR.
143. The Rider submitted that the standard of proof is stringent, and that in this case a higher standard of proof is needed because it is not a case of a positive sample of a doping agent, and because the defendant is faced with a doping scenario.
144. The Single Judge agrees that the threshold of the required standard of proof shall not be set too low. The Single Judge is aware that she shall *“bear in mind the seriousness of the allegation which is made”*.

Conclusion

145. In evaluating all the submissions, arguments and evidence before her, and applying said standard of proof in the context of the assessment of evidence before her, the Single Judge is comfortably satisfied that the Rider committed an anti-doping rule violation of Article 2.2 ADR in the form of Use of a Prohibited Substance or Prohibited Method.

2. Consequences of the anti-doping rule violation

146. Comfortably satisfied that the Rider committed an anti-doping rule violation, the Tribunal must decide upon the consequences of the violation.

a) Period of Ineligibility

147. The UCI submitted that the Tribunal must impose a four year period of Ineligibility on the Rider. The Rider did not make any submissions specifically addressing the length of the period of ineligibility.
148. For first time violations of Article 2.2 ADR, the starting point in determining the sanction is Article 10.2 ADR. According to Article 10.2.1.1 ADR, the period of Ineligibility to be imposed shall be four years where the anti-doping rule violation does not involve a Specified Substance, unless the Rider or other Person can establish that the anti-doping rule violation was not intentional.

149. Since blood manipulation by Use of a Prohibited Substance or Prohibited Method is not a *Specified Substance* according to Article 4.2.2 ADR, Article 10.2.1.1 applies. Article 10.2.1.1 ADR provides that the four year period of Ineligibility may be reduced only if the Rider is able to establish that the anti-doping rule violation was not intentional. The standard of proof placed on the Rider in this regard is a balance of probability (Article 3.1 ADR).
150. The Rider submitted that the abnormalities in his haematological profile were caused by a parvovirus B19 infection or by in vitro haemolysis, and that the samples number 7 and 8 were haemolysed caused by freezing in combination with the duration of the transportation time of the blood samples. As concluded above, the Single Judge is comfortably satisfied that the abnormalities in the Rider's haematological profile resulted from the Use of a prohibited Substance or Prohibited Method. The Rider brought no further arguments that any Use of a Prohibited Substance or prohibited Method was not intentional.
151. In evaluating the submissions and evidence before her, the Single Judge concludes that the Rider failed to discharge his burden of proof to convince this Tribunal, on a balance of probability, that the violation was not intentional. Nor did the Rider establish that any of the Fault-related reductions in Articles 10.4 or 10.5 should apply to the case at hand, or that any other reductions or suspensions of the period of Ineligibility for reasons other than Fault as set forth in Article 10.6 ADR are available in the case at hand.
152. In conclusion, the Single Judge finds that a period of Ineligibility of four years shall be imposed on the Rider.

b) Commencement of the period of Ineligibility

153. A period of Ineligibility of four years is imposed on the Rider. The Tribunal has to determine the commencement of the period of Ineligibility.
154. Article 10.11 ADR provides that the period of Ineligibility shall start on the date of the final hearing decision providing for Ineligibility and that if a Provisional Suspension has been imposed and respected by the Rider, then the Rider shall receive a credit for such period of Provisional Suspension.
155. It is undisputed between the Parties that the Rider respected the Provisional Suspension. Therefore the Rider shall receive a credit for the period of the Provisional Suspension pursuant to Article 10.11.3.1 ADR.
156. Therefore, the period of Ineligibility shall commence on the date of the decision, i.e. 15 February 2019. The Provisional Suspension already served by the Rider, starting from 27 June 2018 until the date of the present Judgment, shall be credited against the four-year period of Ineligibility.

c) Disqualification

157. The UCI in its Petition both requests the Tribunal to disqualify *"all the results obtained by [the Rider] from 1 January 2017 (at a minimum), until he was provisionally suspended"* but also that the UCI *"in light of [case law of CAS and the UCI Anti-Doping Tribunal] leaves it to the Tribunal's discretion to determine the period of disqualification of the Rider's results"*. The Single Judge takes note of these requests, but also acknowledges that according to Article 26.2 ADT Rules *"[t]he Single Judge is not bound by the Parties' prayers for relief"*.
158. As regards determining the date from when the Rider's results shall be Disqualified, the Single Judge concurs with the view expressed by this Tribunal, according to which:

“... art. 10(8) ADR provides an unfortunate lack of clarity in the situation involving a violation based on an ABP. The Single Judge has been unable to find a definition of a “positive Sample” in the ADR; the term appears to be used exclusively in connection with art. 10(8) ADR. The Single Judge sees fit to understand the reference to a “positive Sample” in the phrase “the date a positive Sample was collected” (as opposed to a more precise defined term such as “Adverse Analytical Finding”) here as a means to create a rule that distinguishes between violations based on collected Samples from other types of violations, such as art. 2(4) ADR (Whereabouts Failure) or art. 2(10) ADR (Prohibited Association), or even violations of art. 2(2) ADR that are based on non-analytical evidence. As a consequence, for violations that arise based on collected Samples, such as those based on an ABP, the Disqualification period would start on the date of Sample collection. The Single Judge feels comforted in this view by the consistent line of CAS case law that, in the context of the Disqualification for ABP violations, links the timing of the violation to the timing of the relevant Sample collection.”¹⁶

159. Accordingly, the Disqualification shall start on the date a positive sample was collected. The Single Judge finds this date to be the date of the collection of sample number 7 since this was the first sample in the Rider’s ABP that the Expert Panel found to be “highly abnormal”. Since this sample was collected out-of-competition, Article 10.8 ADR applies.
160. Since the sample in question was collected on 19 January 2017, the period of Disqualification shall start as from this date.
161. Article 10.8 ADR requires Disqualification of all results following this date up to the date the Provisional Suspension was imposed, unless *“fairness requires otherwise”*.
162. The Single Judge takes into account the UCI ADT Judgment in case 06.2017, *UCI v. Mr. Alex Correia Diniz*, para 108, where the Single Judge in that case and in line with CAS case law (CAS 2015/A/4006, *IAAF v. ARAF, Yuliya Zaripova & RUSADA*) conducted an overall evaluation of the elements in the case at hand in determining if *“fairness require[d] otherwise”* than disqualifying all results in the period between the sample collection and the Provisional Suspension.
163. In CAS 2015/A/4006, *IAAF v. ARAF, Yuliya Zaripova & RUSADA*, para 102 the Panel held:

“As a preliminary matter, the Panel notes that ‘fairness’ is a broad concept (CAS 2013/A/3274, para. 85), covering a number of elements that the deciding body can take into account in its decision not to disqualify some results. The CAS precedents (in general terms, inter alia, CAS 2007/A/1283, para. 53; CAS 2013/A/3274, para. 85-88) took into account a number of factors, such as the nature and severity of the infringement (CAS 2010/A/2083, para. 81), the length of time between the anti-doping rule violation, the result to be disqualified and the disciplinary decision, the presence of negative tests between the anti- doping rule violation and the competition at which the result to be disqualified was achieved, and the effect of the infringement on the result at stake (CAS 2008/A/1744, para. 76; CAS 2007/A/1362&1393, para 7.22). The Panel underlines that no single element is decisive alone: an overall evaluation of them is necessary.”
164. The Single Judge takes into account that blood manipulation is not committed inadvertently, but intentionally and purposefully in order to enhance sports performance. The Single Judge also takes note of the fact that CAS has allowed for Disqualification periods of up to 2 years in addition to standard periods of Ineligibility, and, that this Tribunal has allowed for a Disqualification period of 1.5 year.¹⁷

¹⁶ See e.g. CAS 2010/A/2235, *UCI v. Valjavec*, para. 117; CAS 2014/A/3469, *IAAF v. Alhamdah*, para. 44; CAS 2014/A/3614, *IAAF v. Dominguez*, para. 404; CAS 2016/O/4463, *IAAF v. Ugarova*, para. 133; UCI ADT 03.2017, *UCI v. Isabella Moreira Lacerde*, para 132 and UCI ADT 06.2017, *UCI v. Alex Correia Diniz*, para 104.

¹⁷ See UCI ADT 06.2017, *UCI v. Alex Correia Diniz*, para 108 (and para 119), referring to CAS 2013/A/3362.

165. Thus the Single Judge, in exercising her discretion, finds that all competitive results obtained by the Rider from 19 January 2017 until the date of the Provisional Suspension shall be disqualified.

d) Mandatory Fine and Costs

i) Application of the mandatory fine

166. According to Article 10.10.1.1 ADR, a fine shall be imposed in case a Rider exercising a professional activity in cycling is found to have committed an intentional anti-doping rule violation within the meaning of Article 10.2.3. This prerequisite is fulfilled in the case at hand.

167. With respect to the calculation of the fine, the UCI submits that the Rider was entitled to an annual gross income from cycling of EUR ██████ in 2017. Therefore, according to the UCI, a mandatory fine of EUR ██████ should be imposed unless the Rider can establish that a reduction of the fine would be justified in application of the criteria set out in Article 10.10.1.1 ADR.

168. The Rider has not contested the above figures and not put forward any arguments for reduction of the fine.

169. The Single Judge therefore confirms that a monetary fine in the amount of EUR ██████ shall be payable by the Rider to the UCI.

ii) Liability for Costs of the Procedures

170. In application of Article 10.10.2 ADR, the Single Judge holds that the Rider shall reimburse to the UCI the following amounts:

- CHF 2'500 for the costs of the results management by the UCI (Article 10.10.2.2 ADR); and
- EUR 495 for costs of the documentation packages of the blood samples analysed for the ABP (Article 10.10.2.6 ADR).

VII. COSTS OF THE PROCEEDINGS

171. In application of Article 28.2 ADT Rules, the Tribunal decides that the present Judgment is rendered without costs.

172. Notwithstanding the above, the Tribunal may order the unsuccessful Party to pay a contribution toward the prevailing Party's costs and expenses incurred in connection with the proceedings and, in particular, the costs of witnesses and experts (Article 28.4 ADT Rules). The provision states that if the prevailing Party was represented by a legal representative the contribution shall also cover legal costs.

173. The Parties were invited at the hearing and by subsequent letter to submit their account of costs. The UCI submitted by letter dated 27 December 2018 the following account of costs: i) expert fees regarding two experts: EUR 7'603.45; ii) expenses regarding the two experts' appearance at the hearing: CHF 1'360; and iii) legal fees and expenses: CHF 5'000 (the UCI informed, that the legal fees were capped to CHF 5,000 in the interest of limiting costs, and that the UCI's total legal fees far exceeded the amount claimed). The Rider submitted by letter dated 27 December 2018 the following account of costs: i) expert fees regarding one expert: EUR 11'000.00; ii) legal fees and expenses: EUR 12'000.00; and iii) interpretation: EUR 2'440.00.

174. Article 28.4 ADT Rules explicitly states, that the Tribunal may order the unsuccessful Party to pay a contribution toward the prevailing Party's costs and expenses for (in particular) witnesses and experts, and, if the prevailing Party was represented by a legal representative the contribution shall also cover legal costs. In light of all of the circumstances of this case, especially that the UCI (as the prevailing party) was represented by external counsels, that a hearing was held in persona, that the UCI referred to further opinions from the Expert Panel following receipt of the Rider's various lines of argument and that the UCI called two experts to be heard at the hearing, the fact that the Tribunal relied in its finding in particular on the Expert Panel's written opinions and explanations at the hearing and that the amounts requested by the UCI appear absolutely reasonable in consideration of the above, the Tribunal finds that the Rider (as the unsuccessful party) must pay a contribution towards the UCI's costs and expenses in the amount of CHF 6'360.00 + EUR 7'603.45.

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VIII. RULING

175. In light of the above, the Tribunal decides as follows:

- 1. Mr. Jaime Roson Garcia has committed an Anti-Doping Rule Violation (Article 2.2 ADR).**
- 2. Mr. Jaime Roson Garcia is suspended for a period of ineligibility of 4 (four) years. The period of ineligibility shall commence on the date of this decision, i.e. 15 February 2019.**
- 3. The provisional suspension already served by Mr. Jaime Roson Garcia, starting from 27 June 2018, shall be credited against the four year period of ineligibility.**
- 4. The results obtained by Mr. Jaime Roson Garcia between 19 January 2017 and 27 June 2018 are disqualified.**
- 5. Mr. Jaime Roson Garcia is ordered to pay to the UCI the amount of EUR [REDACTED] as monetary fine.**
- 6. Mr. Jaime Roson Garcia is ordered to pay to the UCI:**
 - a) the amount of CHF 2'500 for the costs of the results management; and**
 - b) the amount of EUR 495 for costs of the documentation packages of the blood samples analysed for the Biological Passport.**
- 7. Mr. Jaime Roson Garcia is ordered to pay a contribution in the amount of CHF 6'360.00 + EUR 7'603.45 towards UCI's costs and expenses incurred in connection with these proceedings.**
- 8. All other and/or further reaching requests are dismissed.**
- 9. This Judgment is final and will be notified to:**
 - a) Mr. Jamie Roson Garcia;**
 - b) The Agencia Española de Protección de la Salud en el Deporte;**
 - c) UCI; and**
 - d) WADA.**

176. This Judgment may be appealed before the CAS pursuant to Article 30.2 ADT Rules and Article 74 of the UCI Constitution. The time limit to file the appeal is governed by the provisions in Article 13.2.5 ADR.

Helle Qvortrup Bachmann
Single Judge