CAS 2012/A/2857 Nationale Anti-Doping Agentur Deutschland v. Patrick Sinkewitz

ARBITRAL AWARD

delivered by the

COURT OF ARBITRATION FOR SPORT

sitting in the following composition:

President:	Dr. Christoph Vedder, Professor of law, Munich, Germany
Arbitrators:	Dr. Dirk-Reiner Martens, Attorney-at-law, Munich, Germany
	Dr. Martin Schimke, Attorney-at-law, Düsseldorf, Germany
Ad hoc Clerk:	Mr. Daniele Boccucci, Solicitor, Rome, Italy

in the arbitration between

Nationale Anti-Doping Agentur Deutschland, Bonn, Germany

Represented by Dr. Stephan Netzle, LL.M. and Dr. Karsten Hofmann, Attorneys-at-law, Netzle Rechtsanwälte AG, Zurich, Switzerland

Appellant

and

Patrick Sinkewitz, Künzell, Germany

Represented by Dr. Rainer Cherkeh, Professor of law, Attorney-at-Law, Rechtsanwälte Kern Cherkeh, Hannover, Germany, and Dr. Carsten Momsen, Professor of law, Hannover, Germany

Respondent

I. PARTIES

1. The Nationale Anti-Doping Agentur Deutschland ("NADA" or "Appellant") is the National Anti-Doping Organization for Germany that is designated as possessing the authority and responsibility to implement the World Anti-Doping Agency Code ("WADA Code"), to direct the collection of samples, and to conduct the results management and the hearings at national level.

2. Mr. Patrick Sinkewitz, born on 10 October 1980, (the "Athlete" or "Respondent") is a professional cyclist who, at the material time, according to a license issued by the Bund Deutscher Radfahrer ("BDR") upon an application dated 9 December 2010, participated, in the elite category, in national and international cycling competitions.

II. FACTUAL BACKGROUND

A. Background Facts

3. Below is a summary of the relevant facts and allegations based on the Parties' written submissions, pleadings and evidence adduced therein and at the hearing. Additional facts and allegations found in the Parties' written submissions, pleadings and evidence may be set out, where relevant, in connection with the legal discussion that follows. While the Panel has considered all the facts, allegations, legal arguments and evidence submitted by the Parties in the present proceedings, it refers in its Award only to the submissions and evidence it considers necessary to explain its reasoning.

4. As a preliminary matter, it is noted that the BDR is the German national sport federation for the sport of cycling. According to § 16a of its Statutes, the BDR, by virtue of an agreement of 14 January 2011 between BDR and NADA, transferred its results management to NADA. NADA, on its turn, designated the Deutsche Institution für Schiedsgerichtsbarkeit ("DIS"), the German Institution for Arbitration, as the arbitral body for the administration of arbitrations arising from doping-related disputes with NADA. For that purpose DIS established the Sportschiedsgericht der Deutschen Institution für Schiedsgerichtsbarkeit ("DIS Arbitral Tribunal"), the National Arbitral Tribunal for sport-related disputes within the German Institution for Arbitration. The relevant role of these agencies, and their application to this proceeding, are set forth, where necessary, throughout this Award.

B. First Anti-Doping Rule Violation

5. In June 2007, the Athlete already tested positive for testosterone. After having been informed of the results of the A-sample the Athlete waived his right to a B-sample analysis and admitted to have used a testosterone ointment. As a consequence, he was dismissed by his then cycling team T-Mobile. Roughly three months later, he also admitted to have used Erythropoietin ("EPO") and blood transfusions. These facts were ascertained in the course of anti-doping proceedings before the BDR.

6. By decision of 10 December 2007 of the Bundessportgericht of the BDR, which at that time, before the NADA and the DIS Arbitral Tribunal were mandated by the

BDR, was the internal dispute settlement body of the BDR competent to hear doping-related disputes in cycling on the national level, the athlete was sanctioned with a one-year period of ineligibility because of substantial assistance in the anti-doping movement.

C. Second Anti-Doping Rule Violation

7. On 27 February 2011, the Athlete, as a member of the Italian cycling team Farnese Vini Neri Sottoli, competed in the Grand Prix in Lugano, Switzerland, an international competition under the auspices of the Union Cycliste Internationale ("UCI"). On behalf of the UCI, the Swiss Anti-Doping Organization conducted in-competition tests and the Athlete, amongst others, was submitted to a doping test. The blood sample was taken at 6.20 a.m. while the urine sample was taken at 6.32 a.m.

8. On 4 March 2011, the Athlete's A-sample was analysed by the WADA-accredited Swiss Laboratory for Doping Analyses in Lausanne and, according to the Laboratory Report, displayed the presence of human growth hormone ("hGH") which is a prohibited substance according to Rule 21.1 in conjunction with Rule 29 of the Anti-Doping Regulations of the UCI ("UCI-ADR").

9. On 15 March 2011, the laboratory reported an Adverse Analytical Finding ("AAF") to the UCI. The analysis using the hGH Isoform Differential Immunoassays Test ("hGH Test") produced the following analytical values of assay ratios: 2.45 for kit 1 and 2.43 for kit 2. The Decision Limits ("DL") applicable which trigger the report as an AAF by the laboratory were 1.81 for kit 1 and 1.68 for kit 2.

10. By letter of 18 March 2011, the UCI informed the BDR and the Athlete of the AAF and suspended the Athlete according to Article 235 UCI-ADR.

11. On 5 and 6 April 2011, upon the Athlete's request, the B-sample was analyzed by the Lausanne Laboratory. The Athlete's representatives, who were present during the opening and the analysis of the B-sample, Professor Santo Davide Ferrara and Dr. Alessandro Nalesso, confirmed the correctness of the opening and the analysis of the B-sample.

12. On 7 April 2011, the laboratory reported the analytical values of assay ratios of 3.16 for kit 1 and 2.34 for kit 2 which, according to the laboratory, confirmed the presence of recombinant human growth hormone ("recGH") with respect to the B-sample to the UCI which, on the same day, informed the BDR of the AAF and invited the BDR to initiate disciplinary proceedings. The NADA, the Athlete, and the WADA received copies of that letter.

D. Results Management

13. By letter dated 28 April 2011, the Appellant informed the Respondent about the results of the A-sample and the B-sample analyses which, according to it, represented an Anti-Doping Rule Violation ("ADRV").

14. On 2 May 2011, the Respondent requested that the UCI lift the suspension. On 3 June 2011, the Respondent was informed by the Chairman of the UCI Anti-Doping Commission that his request was rejected.

15. On 14 June 2011, the Athlete filed an appeal with the Court of Arbitration for Sport (the "CAS") against the UCI challenging the suspension imposed on him by the latter. The appeal was dismissed by an award dated 24 August 2011 (CAS 2011/A/2479, *Sinkewitz v. UCI*).

E. Decision of the DIS Arbitral Tribunal

16. In the meantime, the results management conducted by the NADA eventually led to an arbitration between the NADA as Plaintiff and the Athlete as Respondent before the DIS Arbitral Tribunal. On 15 July 2011, the Appellant filed a claim against the Respondent and pleaded for the Respondent to be sanctioned for a repeated ADRV.

17. After two hearings and after various experts having been heard, by an award dated 19 June 2012, the Athlete was acquitted of an ADRV. The Sole Arbitrator came to the conclusion that the calculation of the DL for the rec/pit ratio found in the Athlete's samples was not sufficiently documented and, therefore, the ADRV not validly proven. The Appellant received the award on 21 June 2012.

F. Facts subsequent to the DIS Award

18. On 15 August 2012, the Athlete applied for a new licence and signed a new arbitration agreement.

III. PROCEEDINGS BEFORE THE COURT OF ARBITRATION FOR SPORT

A. The Appeal

19. On 12 July 2012, the Appellant filed a Statement of Appeal with the CAS against the 19 June 2012 award by the DIS Arbitral Tribunal, nominated Dr. Dirk-Reiner Martens as arbitrator, and applied for an extension of the time limit for the submission of the Appeal Brief until 3 September 2012 arguing, *inter* alia, that more time was necessary in order to receive information about relevant data for the determination of the DL.

20. By letter of 26 July 2012, the CAS Court Office informed the DIS about the appeal. The DIS, by letter dated 29 August 2012, emphasized its independence of any sports organisation and informed the CAS that it would not take part in the proceedings.

21. On 17 July 2012, the Statement of Appeal, including Appellant's request for an extension of the time limit to submit the Appeal Brief, was notified to the Athlete by the CAS Court Office.

22. On 23 July 2012, the counsel for the Respondent nominated Dr. Martin Schimke as arbitrator and submitted several procedural requests. Among those, the Respondent challenged the nomination of Dr. Martens.

B. Formation of the Panel

23. By letter dated 10 September 2012, the Parties were informed that the International Council of Arbitration for Sport, having considered the Respondent's position on Dr. Martens, rejected the challenge of his appointment. Accordingly, by letter dated 25 September 2012, the Panel was Parties confirmed as follows: Dr. Christoph Vedder (President); Dr. Dirk-Reiner Martens and Dr. Martin Schimke (Arbitrators).

24. By letter dated 26 July 2013, the Parties were informed that Mr. Daniele Boccucci was appointed *ad hoc* Clerk in this procedure.

C. Procedural matters prior to the Partial Award

25. Various procedural requests by the Respondent – mainly concerning time limits and an application that the proceedings be conducted in German language – gave rise to abundant correspondence and submissions. By letter dated 7 August 2012, the Parties were informed about the decision of the Deputy President of the Appeals Arbitration Division that:

- Appellant was granted a deadline until 3 September 2012 to file its Appeal Brief,
- the proceedings will be conducted in English language, however
- "*the Parties are authorized to file any document/exhibit as evidence in either English or German without translation*,
- *the Parties' representatives are allowed to plead either in German/English in the event a hearing will be held*,
- *the witnesses/experts shall testify in English, failing which the party bringing such witnesses/experts is responsible for the translation into English*,
- *the documents already provided in German by the Parties until today do not need to be translated*".

26. By letter of 29 August 2012, the Respondent requested the Appellant to re-analyze the Athlete's sample using the bio-marker test. The Appellant rejected that request.

27. By letter of 3 September 2012, the Appellant filed its Appeal Brief. The Appellant mainly requested that the award of the DIS Arbitral Tribunal be set aside and the Respondent be declared ineligible because of a second ADRV for no less than 8 years.

28. By letter dated 4 September 2012, the Parties were informed that the Deputy President of the Appeals Arbitration Division decided to reject the Respondent's further procedural requests. The Respondent was advised that, within 20 days, he shall submit his Answer containing, *inter alia*, the statement of defence and "*any defence of lack of jurisdiction*".

29. Following further procedural requests by the Respondent, by order of 25 October 2012, the Panel decided (1) to hold a two-day hearing and proposed several days in the second half of February 2013; (2) to set the deadline for the filing of the Respondent's Answer for 7 December 2012; and (3) to grant a second round of written submissions pursuant to the Parties' requests.

30. On 7 December 2012, the Respondent submitted his Answer to the Appeal Brief in which he maintained his challenge of CAS Jurisdiction.

D. Challenge of CAS Jurisdiction and Partial Award

31. By letter dated 30 October 2012, the Respondent informed the Panel that it was challenging CAS jurisdiction because he had terminated the arbitration agreement for cause because he was unable to afford proceeding with the arbitration. The Parties were given equal opportunity to file their respective submissions on jurisdiction, and the Panel deemed itself to be sufficiently well informed about the facts and the legal submissions pertaining to the matter of jurisdiction and, therefore, decided not to hold a hearing on jurisdiction.

32. On 21 March 2013, the Panel issued a Partial Award the operative part of which reads as follows:

"*The Court of Arbitration for Sport, in a Partial Award, rules that:*

1. The CAS has jurisdiction to hear the appeal filed by the NADA against the award of the DIS Arbitral Tribunal of 19 June 2012.

2. The proceedings continue with regard to the merits.

3. The decision on all other prayers for relief including the costs is reserved to the Final Award".

33. As the Respondent, by letter of 11 April 2013 expressly waived his right to appeal from the Partial Award before the Swiss Federal Tribunal the decision on the Panel´s jurisdiction became final and binding upon the Parties. Such Partial Award on jurisdiction is now adopted in this Final Award, and its reasoning incorporated by reference.

E. Proceedings following the Partial Award

34. Together with the communication of the Partial Award on 21 March 2013, the Panel informed the Parties that it intended to hold a hearing on the merits in May 2013.

35. However, on 25 March 2013, the award in CAS 2011/A/2566, *Andrus Veerpalu v. International Ski Federation* became public and shortly thereafter, by letter of 9 April 2013, the Appellant requested that the Panel not hold the hearing in May but instead grant the opportunity for a second exchange of submissions.

36. By letter of 11 April 2013 the Respondent objected to the Appellant's request, and eight days later, requested that the hearing be held in June 2012.

37. By the Panel's order of 16 April 2013 taking into account the repercussions of the *Veerpalu* award which had put the determination of the decision limits (the "DL") for the hGH Test into question, the Parties were invited to file further written submissions in advance of the eventual hearing and the Panel proposed dates for a hearing in July.

38. On 6 May 2013, the Appellant filed its Second Written Submission and informed the Panel that the WADA initiated a new scientific study (the "DL Review") in order to re-calculate the current DL and requested "*to admit the results of the pending DL Review as additional evidence*". NADA furthermore requested to allow the Parties to provide written comments on the results of the DL Review, to hold a hearing only after receipt of the Parties' comments, and "*to hear the persons involved in the DL Review as additional expert witnesses*".

39. On 17 May 2013, the Respondent filed its Second Written Submission and requested that the Panel reject the Appellant's procedural request to admit the DL Review. He further requested "*not to hold a hearing and to communicate the operative part of an Award on the base of the Appeal, the Answer and the "second written submission" within the time limit communicated in the CAS-letter from 02 April 2013 (01 July 2013)*". In particular, it was submitted that, based on Article R56 of the Code of Sports-related Arbitration (the "Code"), new evidence could not be admitted.

40. By letter of 8 July 2013, the Panel informed the Parties that the hearing would take place on 28 to 30 August 2013. "*Having in mind the long duration of the proceedings*", the Panel granted "*for the preparation of the hearing, each party ... the opportunity to make final submissions*".

41. On 18 July 2013, the Appellant filed "*Appellant´s further written submission in preparation of the hearing*" in which it summarized its arguments and requests for relief. Again, with reference to Articles R44.2 and R44.3 of the Code, Appellant "*explicitly reserve[ed] the right*" to present the results of the WADA review of the calculation of the DL "*as soon as they have been communicated by WADA*", to provide comments on the results of the DL Review during and after the hearing and to invite the experts involved in the DL Review to the hearing for cross-examination.

42. In a letter of 22 July 2013, the Appellant again reserved its right to present the results of the DL Review, to comment on them and to call experts for cross-examination at the hearing.

43. On 2 August 2013, the Respondent filed its "*Further Written Submissions in Preparation of the Hearing*". The Respondent summarized his arguments and requests for relief and, in particular, noted that the "*Appellant has no right to submit further evidence*". The Respondent communicated that Professor Carsten Momsen would also assist him at the hearing.

44. By letter of 2 August 2013, the Appellant identified as an expert witness Professor James A. Hanley, who conducted the DL Review, and informed the Panel that the "*report of Professor Hanley´s working group will be available to the CAS in the next days*". In addition, the Appellant submitted that Dr. Bernd Emanuel, legal counsel of the BDR, "*will accompany the Appellant´s legal team*".

45. On 6 August 2013, the Respondent objected to the Appellant's requests.

46. In response, by letter of 7 August 2013, the Appellant submitted that it had repeatedly notified the Respondent and Panel that it would present the report on the re-calculation of the DL and that authors of this report would be called at the hearing. Appellant further indicated that the report will be available "*in the next few days*".

47. By letter dated 9 August 2013, the Panel ordered, first, that Dr. Emanuel would not be permitted to accompany the Appellant at the hearing because he was not counsel to the Appellant and, second, that Professor Hanley would be allowed to testify in place of Dr. Basset, however his testimony would be limited to what was contained in Dr. Basset's written expert presentation.

48. By letter of 12 August 2013, the Appellant "*formally protest[ed] against the Panel's surprising decision not to admit the WADA report ... and Professor Hanley as an expert witness*" and requested that it reconsider its decision. By letter of 13 August, the Respondent objected to the Appellant's request.

49. In response, on 14 August 2013, the Appellant insisted that the Panel admit the WADA report which "*is now ready as announced and can be forwarded to the Panel and the Respondent without delay*" and further that the Panel admit the testimony of Professor Hanley. Furthermore, the Appellant requested that the Parties be permitted to submit post-hearing briefs instead of delivering oral closing statements.

50. By letter of 15 August 2013, the Parties were informed that the Appellant's request for reconsideration was denied and the directives set forth in the CAS Court Office letter of 9 August 2013 would remain in force. The Parties were reminded

> "*that pursuant to Articles R44.3 and 57 of the Code, the Panel may, if it deems appropriate to supplement the presentations of the Parties, order the production of additional documents or the examination of witnesses (experts or otherwise), or proceed with any procedural step, at any time*".

51. On 14 August 2013 and 13 August 2013, the Appellant and Respondent, respectively, signed the Order of Procedure.

IV. SUBMISSIONS OF THE PARTIES

A. The Appellant's Submissions

52. In its Appeal Brief and in its Second Written Submission dated 6 May 2013, the Appellant requested the following relief:

> "*1. The "Schiedspruch des Sportschiedsgerichts der Deutschen Institution für Sportschiedsgerichtsbarkeit e.V. (DIS)" dated 19 June 2012 shall be cancelled.*
>
> *2. The CAS shall issue a new decision with the following content:*

> *(1) The Respondent shall be declared ineligible because of a Second Anti-Doping Rule Violation for a period determined by the CAS according to Article 306 UCI ADR which shall no less than 8 years.*
>
> *(2) The Respondent shall be sanctioned with a fine of EUR 38.000,00.*
>
> *(3) The Respondent shall bear the costs of the arbitral proceedings and contribute an amount to the legal costs of the Appellant according to Rule R64.5 of the CAS Code*".

53. In addition, in its Second Written Submission, the Appellant made the following procedural requests:

> "a. *to admit the results of the pending DL Review as additional evidence in the present appeal;*
>
> b. *to then invite both Parties to provide comments on the results of the DL Review;*
>
> c. *to hold a hearing only after receipt of both Parties' written comments on the results of the DL Review;*
>
> d. *to hear the persons involved in the DL Review as additional expert witnesses*".

54. In its Appeal Brief, dated 3 September 2012, the Second Written Submission dated 6 May 2013, and its Further Written Submission dated 18 July 2013, the Appellant made the following submissions.

a) The right to introduce new evidence

55. The Appellant, from the beginning, reserved its right to introduce new evidence with regard to the determination of the DL. In reaction to the *Veerpalu* award, in its Further Written Submission of 6 May 2013, the Appellant emphasized the right to bring new evidence which could be ordered by the Panel, according to Article R57 in connection with Articles R44.3 and R56 of the Code. The Appellant informed the Panel that the WADA – immediately after the pronouncement of *Veerpalu* award – initiated a review of the DL which would take three months, and the results of which would be published in a peer-reviewed journal.

56. The admittance of the DL Review would, according to the Appellant, cause no disadvantages to the Respondent because he was not suspended and currently participated in cycling competitions. The Appellant further submitted that the Respondent was responsible for the delays of the proceedings thus far and reminded the Panel that it had also paid the Respondent's share of the advance on the costs.

b) Burden of Proof

57. The Appellant emphasized that, according to Article 3 WADA Code and Articles 22 *et seq.* of the UCI-ADR, first, the ADRV can be established by "*any reliable means*"; second, pursuant to Article 24 UCI-ADR, WADA-accredited laboratories are presumed to have conducted the sample analysis in accordance with the International Standard for Laboratories (the "ISL"). Third, an athlete may rebut this presumption by showing by a balance of probability that a departure from the ISL occurred and that this departure reasonably could have caused an Adverse Analytical Finding (an "AAF"). According to the Appellant, the presumption of Article 24 UCI-ADR also applies to the reliability of the test and the determination and calculation of the DL, and that this failure could have reasonably caused the AAF. Therefore, Respondent would have to demonstrate that the Lausanne Laboratory did not comply with the ISL because it applied an unreliable testing method with doubtful DL. Only then, fourth, the burden of proof would shift to the Appellant to show that such departure did not cause an AAF.

c) WADA-accredited laboratory

58. The Appellant submitted that, as determined by the DIS award, the Lausanne Laboratory has been accredited to perform the hGH Test and, as a consequence, the presumption of Article 24 UCI-ADR applies.

d) Reliability of the hGH Isoform Differential Immunoassays Test

59. The Appellant submitted that the presumption of Article 24 UCI-ADR includes that a reliable testing method and reliable DL were applied. That presumption will have to be rebutted by the Respondent by a mere balance of probability. The Appellant referred to the DIS award which ruled that the hGH Test was reliable.

60. However, the Appellant proceeded to explain that the hGH Test was in fact reliable and the DL have been calculated reliably. The DL were applied in analyzing over 12,000 cases for the detection of possible use by athletes of hGH. The DL, moreover, were determined on the basis of international studies eventually published in the hGH Isoform Guidelines and were the object of further studies which confirmed their reliability which can be inferred from margins of tolerance excluding any "false positive" by at least 99,99% and admitting "false negatives" even to an higher degree.

e) Correctness of the results of the analysis of the Athlete´s samples

61. As already stated by the DIS Arbitral Tribunal, the Appellant further noted that the analysis of the samples had correctly identified and quantified the concentrations of recGH and Pituitary Growth Hormone ("pitGH") and the ratios, as a simple mathematical calculation based on the concentration values of recGH and pitGH.

f) Respondent's rec/pit ratios in excess of any natural rec/pit ratio and the applicable DL

62. The Appellant chiefly submitted that the ratios established on the basis of the values found in the Athlete's samples far exceeded the ratios that can be found naturally without the administration of hGH and, therefore, constitute a positive finding of

hGH. The Appellant pointed out that the Panel must determine whether the values found in the samples constitute a positive finding and not to focus on the DL. According to the Appellant, the DIS Arbitral Tribunal failed to review whether the Athlete's values constitute a positive finding.

63. According to the Appellant, the Athlete's values, by far exceed, first, the rec/pit ratios identified by a study performed by Bidlingmaier *et al*. in 2009 and, second, the ratios measured in the laboratories which contributed to the determination of the current DL as well as, third, the rec/pit ratios which have been determined as the DL. For that purpose, the Appellant explained how the DL have been determined on an increasing amount of data received from athletes, including male cyclists. According to the Appellant, the DL reach a specificity of 99,99% and have been calculated conservatively. No indication was found that the ratios depend on the kind of sport or human activity.

64. The Appellant suggested that the DL determined by WADA in the "Guidelines hGH Isoform Differential Immunoassays for anti-doping analyses" (the "hGH Guidelines") was confirmed by 12 tests which resulted in an AAF. Four of the athletes concerned had admitted the administration of hGH, one of them used hGH by permission of a TUE, four athletes had accepted the findings without protest, and three of them, including the Respondent, were in the stage of disciplinary proceedings.

65. The Appellant referred to the decision of the DIS Arbitral Tribunal which confirmed the reliability of the hGH Test and was satisfied with the adequacy of a risk of false positives of 1:10'000. Nevertheless, the DIS Arbitral Tribunal eventually found that the DL were not calculated according to the state of the art because the raw data (on the basis of which the DL were calculated) were not delivered and the DL were not specifically calculated for cyclists. However, the Tribunal admitted that the submission of the raw data would not have been necessary if the DL had been the object of discussion in scientific publications. In reaching this conclusion, however, according to the Appellant, the DIS Arbitral Tribunal was not aware of the existence of such publications which have been provided (along with the raw data at issue) in the present proceedings.

g) Calculation of the DL

66. Following the *Veerpalu* award, in its Further Written Submission of 18 July 2012, Appellant commented on expert opinions provided by the Respondent. The Appellant pointed out that these opinions aim at the calculation of the DL but not at the reliability of the hGH Test. The Appellant further submitted that the current DL are confirmed by an increasing amount of data and, therefore, are reliable. The DIS Arbitral Tribunal was comfortable with a risk of false positives of 1:10'000. The Appellant referred to the *Veerpalu* award which expressly stated:

> "*That is not to say that the Panel believes that the Test is necessarily unreliable or that the current decision limits are necessarily wrong. [...] It may well be that new procedurally correct studies will confirm the current decision limits, or even, set them at a lower or higher level*".

The Appellant understands the *Veerpalu* award to mean that that Panel decided in favour of the athlete because Mr. Veerpalu's ratios in kit 2 of the B-sample were only 0.34 above the DL while, in the case before this Panel all four ratios of the Respondent's samples are at least 0.64 (kit 1 of the A-sample) above the DL.

67. The Appellant expected the DL to be confirmed by the DL Review.

h) Ratios independent of the different sports

68. The Appellant further submitted that the type of sport does not in itself affect the isoform composition of hGH. Instead, the natural ratio of the various hGH isoforms is determined by biological factors and not by specific sports. According to the Appellant, there is no study available which would support such speculation.

i) DL for anti-doping purposes

69. The Appellant referred to the fact that the DL – for the purpose of detecting doping – are necessarily based on a small number of data and are further refined taking into account the results of doping tests and, therefore cannot be compared to the calculation of DL in human medicine. Appellant argued the risk of false positives is countered by a very high specificity and a large margin of tolerance.

j) Label "for research only"

70. The Appellant further submitted that the label on the boxes which contain the kits of the hGH Isoform Test which read "*for research only*" is exclusively required by United States legislation and, therefore, has no impact on the reliability of the test.

k) Departures from the ISL

71. At the outset, the Appellant referred to the DIS award which came to the conclusion that departures from the ISL were not proven or irrelevant. Therefore, the Respondent did not rebut the presumption of Article 24 UCI-ADR. In its Further Written Submission dated 18 July 2013, Appellant stated that Professor Binder, who was relied upon by the Respondent, did not confirm departures from the ISL which could have caused an AAF. According to the Appellant, the Respondent neither raised new arguments regarding departures from the ISL compared to the proceedings before the DIS Arbitral Tribunal in either his Answer or his Second Written Submission. The Appellant argued that, the Respondent, instead of rebutting the presumption of Article 24 UCI-ADR, has asked questions and created an unlikely hypothesis and, consequently, the burden of proof has not shifted to the Appellant. Nevertheless, in its Appeal Brief, the Appellant commented on the various alleged departures which were submitted by the Respondent before the DIS Arbitral Tribunal.

(i) "Fit for purpose"

72. The "fit for purpose" statement was not needed pursuant to the ISL because the Lausanne Laboratory was accredited for the hGH Test and, therefore, no such declaration was required.

(ii) External Control Samples

73. With reference to the DIS award, the Appellant submitted that the incorrect measurement of the one or two external control samples in the confirmation procedure of the A-sample did not invalidate the analytical measurement because four of the five total controls were in the desired range. Even if the reading on one control sample resulted in a value too low, this would rather lead to a false negative than to a false positive.

(iii) Internal control samples

74. The alleged lack of internal control, according to the Appellant, does not invalidate the B-sample results because, as the DIS award found, the application of internal controls is only recommended but not required by the ISL.

(iv) Luminometer test

75. The Appellant referred to the DIS award which concluded that the luminometer test provided correct results.

(v) Documentation and reporting of the A- and B-Samples

76. In accordance with what the DIS award had found, the Appellant submitted that the documentation and reporting of both the A- and B-samples meet the requirements of the pertinent rules of the ISL and the relevant Technical Document.

(vi) Differences between the results of the samples in kit 1 and kit 2

77. The Appellant submitted that the testing method was sufficiently robust as required by the ISL and, therefore, the deviations in the measurements do not reverse the presumption of Article 24 UCI-ADR. As an expert explained before the DIS Arbitral Tribunal, the deviations between kit 1 of the A-sample (2.56 and 2.45) and the B-sample (3.16) were caused by a higher value of the recGH concentration and a lower value of the pitGH concentration in the B-sample, compared to the A-sample. The values were in the accepted range of difference of 20%.

78. Furthermore, with reference to the DIS award, the Appellant argued that the different values measured for kit1 (3.16) and kit 2 (2.34) of the B-sample are due to the fact that the analyses using kit 1 and kit 2 are technically different. The kits use different monoclonal antibodies to capture proteins and, therefore, lead to different values and different DL.

(vii) Sample transportation

79. The transport documentation shows a transport time of 33 h and temperatures between 3.8 and 11.6 degree Celsius which, in the DIS award, was considered a departure from Article 5.14.1 of the WADA Guidelines for Blood Sample Collection which recommend a temperature between 2 and 8 degree Celsius. The Appellant refers to the DIS award which found, based on expert testimony, that a temperature of 3.6 degree

Celsius in excess of the limit could not have had any decisive effect on the Respondent's samples.

(viii) Second opinion

80. The Appellant submitted that the second opinion received from Professor Cowan which, according to the Respondent, was not sufficiently clear, was not required for a hGH test but only for an EPO test. However, the opinion confirmed the analysis results.

(ix) B-Sample Analysis in the same laboratory

81. The Appellant referred to the DIS award which found that the performance of the B-sample analysis by the same laboratory which had analysed the A-sample was in line with Article 5.2.4.3.2.2 of the ISL. Furthermore, the DIS Arbitral Tribunal did not find any indication for the Athlete having requested the B-ample analysed in a different laboratory.

l) Individual circumstances

82. The Appellant submitted that the individual circumstances of the Athlete, such as intense exercise, cannot explain the significant increase of 22 kDa GH without an administration of recGH. The Appellant referred to an expert testimony before the DIS Arbitral Tribunal and the conclusion of the latter. According to the Appellant, the vast amount of hGH Tests performed on all kinds of athletes under different circumstances indicate that such circumstances do not affect the relative concentrations of the GH isoforms and the rec/pit ratio. Even if physical stress caused by exercise and other conditions may lead to an increase of the overall concentrations of GH, this applies to all isoforms and does not affect the rec/pit ratio.

83. In its Further Written Submission in the preparation for the hearing, the Appellant noticed that the Respondent did not specify any individual circumstances which may have caused the ratios found on the Respondent's samples.

m) Remaining Matters of Dispute

84. In its Further Written Submission of 18 July 2013, the Appellant claimed that the following issues cannot be disputed before the Panel: (1) the samples analysed are the Respondent's; (2) the Lausanne Laboratory is accredited for the execution of the hGH Test; (3) the samples collected from the Respondent revealed the values as reported; (4) these values are distinctively higher than the DL; and (5) individual circumstances such as the age of the Athlete or the sport exercised did not cause or contribute to the AAF.

85. With reference to the award of the DIS Arbitral Tribunal and the CAS in *Veerpalu*, the Appellant concluded that the hGH Test is a reliable testing method which allows the identification of recGH in the samples and, therefore, constitutes the proof of doping and that external factors such as exercise, high altitude, and time of the sample collection cannot cause a positive finding of recGH.

86. According to the Appellant, the remaining dispute is solely about the question whether the DL determined by WADA are so unreliable that Respondent's samples cannot safely be declared as GH-positives.

n) Sanction

(i) Second ADRV

87. Appellant submitted that Respondent, based on the sample collected on 27 February 2011, committed an ADRV in the sense of both Articles 21.1 and 21.2 UCI-ADR, which if it were a first ADRV, would entail a sanction of ineligibility of two years as provided in Article 293 UCI-ADR.

88. The Respondent has not asked for an elimination or reduction due to exceptional circumstances. In addition, the Appellant argued that the application of hGH requires sophisticated planning, assistance, and guidance by specialists. Furthermore, hGH is strongly performance enhancing because it improves the anaerobic capacities of an athlete supporting short bursts of extreme physical activities such as climbing up a slope on a bicycle. Appellant concluded that it is impossible to unconsciously administer hGH.

89. Based on Articles 306 and 312 UCI-ADR, the Appellant requested a sanction between 8 years and life-time because the Respondent, in 2011, committed a second ADRV within eight years of his first ADRV in 2007.

90. According to the Appellant, the 2007 sanction must be considered a standard sanction irrespective of the fact that it had been reduced due to substantial assistance.

91. With two standard sanctions taken into consideration, pursuant to the table in Article 306 UCI-ADR, the Appellant requests the Panel to

> "*determine the appropriate sanction in consideration of all circumstances within the frame determined by Article 306 UCI-ADR, but no less than eight years of ineligibility*".

(ii) Commencement of the sanction

92. With respect to the commencement of the sanction, the Appellant referred to Article 314 UCI-ADR according to which the period of ineligibility begins on the day of the pronouncement of the award, and points out that the Respondent shall not receive a credit for the period a provisional suspension he served between 18 March 2011 and 19 June 2012 because he did not accept the suspension voluntarily.

(iii) Fine

93. In addition, in accordance with Article 326 UCI-ADR, the Appellant requests that a fine must be imposed on the Athlete in an amount which is 70% of the gross annual income from cycling that the Respondent normally was entitled to for the whole year in which the ADRV occurred. According to the UCI's provided for in Article 326 USI

ADR, based on the Athlete's contract with his then cycling team, the remuneration for the year of 2011 would amount to 55'000 Euro, 70% of which is 38'500 Euro.

o) Costs

94. The Appellant requested the Panel to impose on the Respondent the costs of these proceedings including the costs for the results management incurred by the BDR, the costs for the B-sample analysis, and the documentation packages of the A- and B-samples. The Appellant noted that the numerous procedural requests by the Respondent, in particular the challenge of an arbitrator and, according to the Appellant "*in bad faith*", the objection to CAS jurisdiction, were both dismissed and caused significant extra costs. Moreover, the Appellant paid not only its share of the advance of costs, but also the Respondent's share.

B. The Respondent's Submissions

95. In his Answer dated 7 December 2012, and further maintained in his Further Written Submission of 2 August 2013, the Respondent requested for relief:

> *"1. Dismiss the requests for Relief of the Nationale Anti Doping Agentur Deutschland (…).*
>
> *2. Appellant shall be ordered to pay all costs in relation to these proceedings. This includes a contribution to the legal costs of the Respondent and the costs for witnesses according R64.5 of the CAS-Code.*
>
> 3. *The complete procedural acts /court file (German: "Verfahrensakte") must be consulted (German: "beiziehen")by the Court of Arbitration for Sport in this Appeal Arbitration Procedure with the reason that the whole content – including all attack and defense instrument (German: "Angriffs- und Verteidigungsmittel"), production of evidence of the Respondent (German: "Beweismittel" des Respondent Patrik Sinkewitz) – of the first Instance (DIS Sportschiedsgericht, file number: DIS-SV-SP-05/11) including all submissions of the Parties and the Court, all documents, all legal documents, all letters and Exhibits, all written expert opinions, all written expertises, all proceedings of the Court included but not limited the protocol of the hearing of evidence at the Court from 14 June 2012 is subject (German: "Gegenstand") and evidence of this Appeal Arbitration Procedure as well.*
>
> 4. *The accuracy (German: "Richtigkeit") relating the content and results of the written Expert opinions in the first Instance (DIS Sportsschiedsgericht, file number: DIS-SV-SP-05/11) – see request above Nr. 3 – by*
>
> *- Professor Santo Davide Ferrara (University of Padua)*

- Professor Dr. Juergen Kratzsch (University of Leipzig

- Dr. habil. Markus Scholz (University of Leipzig)

- Dr. Dr. Joachim Martell (University of Göttingen)

and relating the content and results of the additionaly written experts opinions in this Answer (…)

- Dr. habil. Markus Scholz (University of Leipzig)

- Dr. Werner Pitsch (University Saarbrücken)

shall be proved and verified by independent experts".

96. In his Second Written Submission dated 17 May 2013, the Respondent made the following procedural requests:

> "*a) to reject the Appellant´s procedural requests in his "second written submissions" (page 3 Chapter II. and III,);*
>
> *b) in accordance with R 57 CAS-Code paragraph 2 not to hold a hearing and to communicate the operative part of an Award on the base of the Appeal, the Answer and the "second written submission" within the time limit communicated in the CAS-letter from 02 April 2013 (01 July 2013)*".

97. The principal submissions made by the Respondent in his Answer dated 7 December 2012, and in his Further Written Submission dated 2 August 2013, shall be summarized in the subsequent paragraphs.., whereas the Respondent´s Second Written Submission of 17 May 2013 was limited to object to the procedural request by the Appellant to admit the DL Review. In this respect, the Respondent argued that any further delay of the proceedings would disadvantage him. Furthermore, he commented that the Appellant allegedly was silent on the expert opinions of Professor Scholz and Dr. Pitsch.

a) Procedural submissions

98. Respondent submitted that his right to be heard was violated because he does not understand English and does not have the necessary funds to provide translations and mandate scientific experts. Moreover, the Respondent's right to equal treatment was allegedly violated because the Appellant called ten expert witnesses. In this context, the Respondent submitted that the expert witnesses called by the Appellant are related to the WADA or shareholders of the company which manufactures the test kits and, therefore, not independent.

99. The Respondent further submitted that the complete file related to the proceedings before the DIS Arbitral Tribunal should be transmitted to the CAS proceedings.

b) Reliability of the hGH Isoform Differential Immunoassays Test

100. The Respondent primarily submitted that the hGH Test is not reliable. With reference to the testimonies of Professor Schulz and Dr. Pitsch, it was claimed that the statistical calculation of the DL is not reliable because of an incomplete data base. An identifier for the samples is missing. The ethnicity of the providers of the samples is not indicated. The samples collected may overlap. In particular, co-variables such as the time of the sample collection, the sport disciplines of the athletes tested, the age of the athletes, "*and other*" circumstances are neither indicated nor taken into consideration. The Respondent concluded that the data are below basic scientific standards and the calculation of the DL is "*highly anti-conservative*". The correct DL calculated on the basis of the data used by the WADA should be in the range of 3 and higher.

101. In his Further Written Submission dated 2 August 2013, the Respondent summarized that the DL are not reliable because of, first, an "*inappropriate exclusion of certain data from the samples*", second, "*the insufficient sample size*", and, third, "*the uncertainty relating to the distribution models used*".

102. Furthermore, the Respondent submitted that his ratios on kit 1 and kit 2 of the A-sample are lower than "*in the Veerpalu-case (kit 2 even 0.65 lower than kit 2 from Veerpalu)*".

103. According to the Respondent, no references to the studies on which the DL was based by WADA were given.

104. The Respondent further argued that the Appellant allegedly did not comment on the expert opinions and did not provide data and information asked for by the Respondent in relation to the calculation of the DL. The Respondent claims that this alone requires the dismissal of the appeal.

c) Burden of proof

105. The Respondent opposed the Appellant's understanding of the rules on evidence. On the basis of the "scientific facts" submitted by the Respondent, the burden of proof has, indeed, shifted and the Appellant has to prove that co-variables such as external factors and individual circumstances cannot cause an AAF, which the Appellant allegedly failed to do.

d) Departures from the ISL

106. The Respondent referred to "*several departures*" from the ISL submitted before the DIS Arbitral Tribunal and concluded that, therefore, the burden of proof shifted to the Appellant to establish that such departure did not cause the AAF which, according to the Respondent, the Appellant failed to do.

107. According to the Respondent, the Appellant did not explain

- "*why the difference of the ratio from kit 1 of the A-sample (2,45) to the ratio from kit 1 of the B-sample is 29% (the same kit !)*"

- "*why the ratio from kit 1 and kit 2 in the A-sample are closely (kit 1: 2.45; kit 2: 2.34) but the difference from kit 1 of the B-sample (3.16) to the ratio from the kit 2 in the B-sample (2.34) is as big. This difference is 34 %*".

Therefore, with reference to a statement by Professor Ferrara, the Respondent concluded that the B-sample analysis did not confirm the results obtained from the A-sample. Furthermore, the Respondent claimed that the Appellant did not explain

- "*the difference between the order in the hGH-Guidelines (Intra-Assay-VK "not higher then 10 %")*".

According to the Respondent, "*such extreme departure from the hGH Guidelines shifts the burden of proof*" to the Appellant.

e) Refusal of a test with the bio-marker test

108. The Respondent considered the refusal by the Appellant to re-test the Respondent's samples with a new test available for the London Olympic Games in 2012, the bio-marker test, "*unfair, unlawful*" and Respondent's right to prove his innocence which is "*a fundamental principle of the rule of law*" to have been violated.

f) Refusal to provide important information for the defense

109. In his Answer of 7 December 2012, the Respondent requested the Panel to order the Appellant to submit factual information and an immunoassay test kit 1 and kit 2 to an independent expert for analysis.

V. THE HEARING

110. The hearing took place on 28, 29 and 30 August 2013 at the CAS Headquarters in Lausanne, Switzerland. In addition to the members of the Panel, Mr. Daniele Boccucci participated as *ad hoc* Clerk and Mr. Brent J. Nowicki and Mr. Christopher Singer assisted as Legal Counsels to the CAS. Those participating in the hearing were:

For the Appellant:

- Dr. Andrea Gotzmann, Head of the Executive Board of NADA, Bonn, Germany
- Dr. Lars Mortsiefer, Legal Counsel, Member of the Executive Board of NADA, Bonn, Germany
- Dr. Stefan Netzle, attorney-at-law, Zurich, Switzerland, counsel to the Appellant
- Ms. Laura Marty, Zurich, Switzerland, assistant to the counsel to the Appellant

For the Respondent:

- Mr. Patrick Sinkewitz, Respondent

- Dr. Rainer Cherkeh, Professor of law, attorney-at-law, Hannover, Germany, counsel to the Respondent

- Dr. Carsten Momsen, Professor of law, Hannover, Germany, co-counsel to the Respondent.

As expert witnesses summoned by the Appellant:

- Professor Ken Ho, via video conference

- Professor James A. Hanley

- Professor Mario Thevis

- Dr. Martial Saugy

- Dr. Osquel Barroso

- Dr. Christiane Ayotte, via video conference

- Professor Christian Strasburger, via video conference

- Dr. Martin Bidlingmaier, via video conference

As expert witnesses summoned by the Respondent:

- Professor Markus Scholz

- Professor Jürgen Kratzsch, via video conference

- Dr. Werner Pitsch.

111. On 28 August 2013, the President of the Panel opened the hearing by recapitulating the state of the dispute both procedurally and in substance. The President made reference to the Order of Procedure and the Hearing Schedule. Organizational matters concerning the presentations of expert witnesses were settled. With regard to the disagreement whether or not the DL Review and Professor Hanley's testimony should be admitted, the President reasoned the Panel's decision of 9 August 2012, in particular, noting that the Panel rejected the Appellant's requests in order to respect the right to be heard, which might have been violated if the DL Review and the testimony of Professor Hanley related thereto would have been submitted at the very last moment before the hearing, without re-scheduling the latter. Furthermore, the President reminded the Parties of the decision of the Deputy President of the Appeals Arbitration Division communicated to the Parties on 7 December 2012 to the effect that "*the Parties representatives are allowed to plead either in German/English in the event a hearing will be held*" which means that the opening and the closing statements, exclusively, can be made in German, if desired, while the hearing, in its other parts, is entirely conducted in English.

112. Based on the Parties' submissions on the merits, the President identified the remaining matters of dispute. The Parties did not oppose. Undisputed issues concerned:

- the circumstances of the sample collection
- whether the samples analysed were the Respondent´s
- the results of the analysis
- whether the Lausanne Laboratory is certified for the hGH Test
- whether the hGH Test is a reliable test to identify recGH.

According to the President, the remaining dispute primarily was about the reliability of the DL published in the hGH Guideline.

113. No objections were raised as to the jurisdiction of the CAS as determined in the Partial Award, which became final and binding; the applicable law; the composition of the Panel; and the procedure thus far.

114. The Panel heard the oral opening statements by both the Appellant and the Respondent submitted in German language.

115. At the end of his opening statement, the Appellant's counsel made known that the DL Review was available and ready to be handed out to the Panel and Respondent, and that Professor Hanley, who is one of the authors of that study, was present in Lausanne for testimony and cross-examination. The Appellant requested to admit both the DL Review and the testimony of Professor Hanley to the hearing and further requested to terminate the hearing without closing statements and to allow post-hearing submissions and, if needed, a post-hearing submission. The Respondent objected to the Appellant's requests.

116. The Respondent proposed that the Parties' expert witnesses be present during the testimonies of the other expert witnesses. Such suggestion was modified by the Panel such that any expert witness present at the hearing would be permitted to remain in the hearing room throughout the duration of the testimonies of the other expert witnesses. The Parties agreed.

117. The hearing resumed on 29 August 2013 with Professor Scholz and Dr. Pitsch, expert witnesses summoned by the Respondent, present.

118. The President also pronounced the Panel's decision on the requests made by Appellant in its opening statement and ordered as follows:

> "*1. The report relating to the WADA DL Review is admitted. However, it will be handed out to the Panel and Respondent after the closure of the hearing, only. This order is based on Article R56 of the Code. Exceptional circumstances are present because, first, the reliability of the current DL was put in to question, second, WADA initiated the re-calculation of the DL immediately*

after the Award in Veerpalu and mandated a research study, and, third, an earlier provision of the report was not in the hands of Appellant.

2. *Professor Hanley will be heard to the status of the report, exclusively but not on its content.*

3. *The right to be heard mandates that the Parties are granted the opportunity of post-hearing submissions on the content of the report.*

4. *The Panel reserves the right to hear Professor Hanley on the content of the report, if relevant.*

5. *Nevertheless, at the end of the hearing, closing statement will be heard, strictly limited, however, to the subject-matters of the hearing.*

6. *Further instructions may be given before the closure of the hearing*".

119. In accordance with that order, Professor James A. Hanley, Department of Epidemiology and Biostatistics at the McGill University, Montreal, Canada, co-author of the report on the DL Review, testified, in person, with Dr. Barroso present. Professor Hanley was allowed to testify about the circumstances of the study commissioned by WADA immediately after the pronouncement of the *Veerpalu* award. The study conducted by him was based on new data and used new models of statistical calculation. He stated that the report which was handed over to WADA on 11 August 2013 is final and will be published in a peer-reviewed scientific journal in due course. Following his testimony, Professor Hanley stayed in the court room.

120. Before hearing Professor Hanley, the Panel heard, via video conference, Professor Ken Ho, endocrinologist and Professor of Medicine at the University of Queensland. In the course of his examination, Professor Ho explained the effects of the use of hGH for enhancing sport performances and declared, in particular, that:

- he has a vast expertise on hGH;

- he is very familiar with the hGH Test;

- there is no evidence that external factors (*e.g.* physical exercise, kind of sport practiced and age) affect the hGH ratio, which remains stable;

- the time of the day on which a sample is collected cannot have any influence on the hGH ratio;

- there are no doubts that the Respondent's results show an AAF;

- even non considering the DL, according to his experience the most likely explanation for the Respondent's values is an administration of hGH;

- the difference between the A- and B- sample in kit 1, used for the Respondent's test, does not affect the reliability of the test results.

Professor Ho was cross examined and left after his examination.

121. Next, the Panel heard Professor Mario Thevis, Director of the Centre for Preventive Doping Research of the German Sport University, Cologne, summoned by the Appellant. In the course of his examination, Professor Thevis declared, in particular, that:

- he has a vast expertise on the hGH Test;

- he worked also on other methods and studies related to the detection of the administration of hGH and that the hGH Test is perfectly consistent with the results those methods and studies, reason for which he has no doubt about the reliability of the hGH Test;

- it cannot be confirmed that other tests, such as the "bio-marker test", are more reliable than the hGH Test;

- a single administration of hGH on a sample collected within the time-frame of twelve hours prior to the test can be detected only with the recourse to the hGH Test, while the bio-marker test would not be useful for the detection of a single administration;

- even leaving the DL aside, comparing the results of the Respondent's sample with his (*i.e.* Professor Thevis') experience in the past six years of "routine" anti-doping controls, it can be concluded that the Respondent's result are substantially higher than the average results;

- the only case in which, according to his experience, the values are so high as the Respondent's, are cases in which the hGH was administered;

- neither literature nor his laboratory experience confirms that individual factors, such as physical exercise, may influence the isoform ratio between rec and pit hGH; exercise, indeed, has an influence on the overall production of hGH, but not on the isoform composition which does not significantly vary;

- there is no evidence that further factors such as age, the kind of sport practiced, and ethnicity may have an influence on the isoform ratio;

- the DL are conservatively set;

- he is not aware of external factors which could have an impact on the increasing of the level of hGH isoforms measured in a sample above the DL;

- the difference between the results of sample A and sample B in Kit 1, both concerning the Respondent's test, does not affect the reliability of the test carried out.

Professor Thevis stayed in the court room following his testimony.

122. As expert witness summoned by the Appellant, the Panel heard Dr. Martial Saugy, Director of the WADA-accredited Swiss Laboratory for Doping Analysis in Lausanne, which analyzed the Athlete's A- and B-samples. In the course of his examination, Dr. Saugy declared, in particular, that:

- he led the Lausanne Laboratory which analyzed the Respondent's sample;
- he has a vast expertise on the detection of hGH;
- the Lausanne Laboratory had performed around 2,000 hGH tests at the time of the analysis of the Respondent's sample, and around 4,000 tests as of today;
- the administered hGH is the 22 kDa hGH (so-called "recombinant" hGH); the hGH Test measures the total amount of all isoforms of hGH present in the human serum, so that the ratio between them may show an abnormal high presence of recombinant hGH, which, in turn, shows that the latter has been administered;
- physical exercise increases the total amount of hGH, but this does not have any influence on the functioning of the hGH Test, as demonstrated by a study recently carried out on cyclists which appeared in a publication he co-authored;
- according to his professional experience, he is not aware of any factors, such as age and sport discipline practiced, which may have an influence on the hGH ratio;
- based on his professional experience, the Respondent's values are "particularly" abnormal and clearly demonstrate that there was an administration of hGH, even leaving aside any consideration on the DL;
- the difference on the values between the A and B sample were within the acceptable standard;
- the fact that the intra-assay coefficient of variability had a value of 18% during the confirmation analysis – instead of the value of 10% indicated by the hGH Guidelines – can be explained considering the fact that the remaining part of the sample collected was used; in any case, he is convinced of the reliability of the results and of the fact that the AAF had to be reported, considering the values. The possible deviation from the hGH Guidelines, indeed, does not affect the conclusion that the individual values show, in any case, an AAF.

Dr. Saugy was cross-examined and left the hearing room after his testimony.

123. Furthermore, Dr. Osquel Barroso, Senior Manager Science of the WADA, summoned by Appellant, was heard by the Panel and cross-examined by the Respondent. In the course of his examination, Dr. Barroso explained the steps of the development of the hGH Test. He also set out the development of the kits used for the hGH Test (the same used for the collection and analyses of Respondent's sample), explaining that the main difference between the two kits (kit 1 and kit 2) is represented by the anti-bodies with which each one is coated, and further pointed out that no AAF is reported if the

analyses carried out on the second kit do not confirm the results of the first kit analyzed. Furthermore, Dr. Barroso also stated, in particular, that:

- he has been in charge of coordinating the WADA and USADA working group on hGH since November 2007;

- the kits at issue are available only to WADA laboratories;

- he is aware of about 21'000 isoform tests performed in the period between January 2009 and March 2013;

- of the thirteen AAF reported so far by the laboratories: one concerned an athlete treated with hGH in accordance with a Therapeutic Use Exemption (an "TUE"); nine cases concerned athletes who admitted the use of hGH or were, in any case, eventually sanctioned; the three remaining cases are those of Mr. *Veerpalu*, of the Respondent and a further case of a Finnish athlete currently under examination;

- physical exercise increases the secretion of hGH, but has no influence on the ratio;

- the data used by WADA refer to samples collected both in- and out-of-competition and at all times of the day, including early morning (*e.g.* 06:00 a.m.); such data show that in all of the mentioned conditions there is no significant change in the ratio;

- age has an influence on the secretion of hGH, but not on the ratio;

- the sport discipline practiced does not have any impact on the ratio;

- according to his experience, the Respondent's values clearly show an administration of hGH;

- several cases in which the AAF was confirmed by the admission by the athlete showed values below the Respondent;

- the difference between the values of sample A and B in the Respondent's case are well within the acceptable standard;

- the fact that during the confirmation analyses it emerged that the intra-assay coefficient of variability was of 18%, instead of 10% as reported in the hGH Guidelines, indicates that there was a deviation from the recommendations set out in the hGH Guidelines; such deviation, however, also considering all of the remaining values and circumstances, may not affect the correctness of the conclusion of the AAF;

- the time of the sample transportation to the laboratory (about 33 hours) is within the recommended standard (24-36 hours); also the temperature of storage during the transportation (11.6° at the highest) is within the recommended standard (between 2° and 12°) and could not, in any case, have determined a "false positive".

Dr. Barroso stayed in the hearing room following his testimony.

124. The Panel heard Professor Markus Scholz, Professor of Biomathematics and Biostatistical Analysis, University of Leipzig, Germany, summoned by the Respondent. Professor Scholz was cross-examined by the Appellant. In the course of his examination, Professor Scholz declared, in particular, that:

- his expert statement relates exclusively to the quality of the data used for the implementation of the hGH Test;
- the data provided by the Appellant in the proceedings in order to show the reliability of the hGH Test are not sufficient to exclude that individual circumstances and factors (such as ethnicity, sport discipline practiced and age) may affect the results of the test;
- based on the data filed by the Appellant, there are some indications which suggest that some factors – in particular ethnicity – may affect the hGH ratio;
- the data provided are not sufficient to demonstrate the reliability of the hGH Test;
- there is strong evidence that the data used for the implementation of the hGH Test were collected in an unsystematic fashion, as there are a large number of inconsistences and missing data; this might have had a significant impact on the way the DL were eventually set;
- the data were not collected, in any case, in accordance to the standards of good scientific practice;
- the DL are not conservative limits at all;
- the possibility of a "false positive", at the outcome of the isoform test, cannot be adequately excluded;
- the parametric approach used for establishing the DL is questionable; even using the approach at issue, however, the DL should have been set, in order to be "conservative", at significantly higher level.

Professor Scholz stayed in the hearing room following his testimony.

125. The Panel heard by video conference Professor Christine Ayotte, Head of the WADA-accredited Laboratory in Montreal, summoned by the Appellant. In the course of her examination, Professor Ayotte declared, in particular, that:

- her WADA-accredited laboratory contributed to the implementation of the hGH Test;
- examining the data collected for the implementation of the hGH Test, nothing indicates that factors such as ethnicity or sport discipline practiced may have an impact on the hGH ratio;

- it cannot be concurred with the opinion (expressed by Professor Scholz, with which she was confronted) that the DL should be set at an higher level than the one established.

The Respondent waived his right to cross examine Professor Ayotte since she was referring to data which were not available to the Respondent. Professor Ayotte did not attend the hearing after her examination.

126. The Panel heard by video conference Professor Christian Strasburger, head of a clinic of endocrinology in Berlin and expert on the hGH Test, summoned by the Appellant. In the course of his examination, Professor Strasburger:

- stated that he has a vast expertise on hGH;

- declared being one of the developer of the hGH Test;

- explained the development of the hGH Test and its functioning, including the scientific principles on which it is based;

- declared that the hGH ratio is not influenced by factors such as age, physical exercise and kind of sport practiced.

Professor Strasburger did not attend the hearing after the examination of Dr. Bidlingmaier (see par. 127 below).

127. The Panel heard by video conference Dr. Martin Bidlingmaier, head of the Endocrinology Laboratory of the Munich University Hospital and expert on the hGH Test, summoned by the Appellant. In the course of his examination, Dr. Bidlingmaier declared, in particular, that:

- he has a vast expertise on hGH;

- he is one of the developers of the hGH Test;

- factors such as physical exercise, sport discipline practiced or age do not influence the hGH ratio;

- the label "*for research use only*" is reported on the kits for the isoform test in accordance with the United States regulations on medical practice (on the diagnostic use of medical devices), but do not affect the reliability of the test and that of the results at all;

- according to his experience, even without taking the DL as a reference, values such as those of the Respondent are detected only in case of an administration of hGH.

Dr. Bidlingmaier did not attend the hearing after his examination.

128. Jürgen Kratzsch, Professor for Chemical Chemistry at the Institute of Laboratory Medicine of the University of Leipzig, expert witness summoned by the Respondent,

was heard by telephone conference. In the course of his examination, Professor Kratzsch declared, in particular, that:

- he has a vast expertise on hGH;
- there are only few papers which deal with the influence of factors such as physical exercise, nutrition sleep and other factors on the hGH ratio;
- the factors at issue are potentially capable to influence the hGH ratio;
- possible confounding factors, such as those above-mentioned, have not been sufficiently taken into account when establishing the DL;
- the data provided are insufficient to properly assess the consistency of the DL;
- in the specific case of the Respondent, it cannot be concluded with adequate certainty that the values detected on his sample are due to the administration of hGH.

Professor Kratzsch was cross-examined by the Appellant and did not attend the hearing after his examination.

129. The Panel finally heard Dr. Werner Pitsch, summoned by the Respondent, expert in forensic statistics of the University of Saarbrücken. In the course of his examination, Dr. Pitsch explained the rationale behind his expert opinion (including the criteria used and the calculations made) and declared, in particular, that:

- his expert opinion is based on the data provided by the Appellant and on the assumption that the data at issue are correct;
- there is, however, strong evidence that the data provided by the Appellant were unsystematically collected and show significant inconsistences;
- the calculations made by WADA in order to establish the reliability of the DL do not take in consideration important factors such as, in particular, the "positive predictive value";
- in the Respondent's case, the evidence provided is much "weaker" than asserted by Appellant;
- on a set of scale for the standard of proof, the data provided by the Appellant establishes, at best, that the Respondent may "likely" have committed an anti-doping rule violation.

Dr. Pitsch was cross examined by the Appellant and remained in the hearing following his testimony.

130. At the close of the hearing session on 29 August 2013, the Panel invited the Parties to comment, in their closing statements, on the legal nature and qualification of the DL irrespective of the current DL values.

131. The hearing resumed on 30 August 2013 and the Panel heard the closing statements of both Parties in the German language.

132. In its closing statement, the Appellant submitted, in particular, that:

- pursuant to the applicable law, evidence can be provided by any reliable means;
- the statement of the expert-witnesses has to be considered evidence;
- the "Wallace paper", which states that physical exercise may influence the ratio of the isoform, is not relevant in this case, since the same paper acknowledges that after the lapsing of a time-frame of 30 min. the ratio at issue reverts to "normal values";
- while the DL are part of the hGH Guidelines, they provide no definition of "doping"; a doping offence, namely, is to be ascertained pursuant to the definition reported in Article 2, more specifically in Article 2.1 of the WADA Code.

133. At the end of the hearing, the Appellant upheld its prayers for relief and, in particular, requested that the Panel impose on the Athlete a minimum period of ineligibility of 8 years.

134. In his closing statement, the Respondent submitted, in particular, that:

- there have been breaches of his right to fair proceedings; they derive, in particular, from: (i) the use of a language with which the Respondent is not familiar; (ii) the fact that Appellant produced evidence, which might have been produced at an earlier stage of the proceedings, only at the hearing (*e.g.* Appellant did not comment on the expert opinion of Dr. Pitsch prior to the hearing); (iii) the "*defensive means*" available to the Parties were not proportioned; (iv) Appellant did not provide clear data for the examination, but rather referred to experts' opinions which are not verifiable; (v) the burden of proof has been reversed, since it should be the federation to demonstrate that an ADRV has been committed, and not the athlete to demonstrate that he has not committed an ADRV;
- as it must be inferred from the content of the awards issued by the CAS in the proceedings *Pechstein* (Claudia Pechstein v. ISU, CAS 2009/A/1912 of 25 November 2009) and *Veerpalu*, the anti-doping tests implemented by the competent authorities must be "*scientifically reliable*", a characteristic which would not be present in the case of the hGH Test;
- the analytical results of the A-sample were not confirmed by the analysis carried out on the B-sample;
- the DL should be considered as limits below which it should be assumed that there was no administration of exogenous hGH; the DL are " *soft law*" which is reviewable by the Panel.

135. The Respondent referred to all of his reliefs requested in his last submissions and stated that no matter was undisputed. Moreover, in general terms the Respondent referred to his submissions and requests made before the DIS Arbitral Tribunal.

136. At the end of his statement, the Respondent requested again not to admit the DL Review as "*new evidence*" and requested to be allowed to comment on the study on 15 athletes to which Dr. Saugy made reference in his testimony.

137. At the close of the hearing, the Panel, in accordance to Article R56 of the Code, noted that it has the authority to admit the "Report prepared for the WADA", however, the weight that will be attached to that document will be at the discretion of the Panel.

138. The Panel ordered further that:

> "*1. Appellant is invited to file his comments on Professor Hanley´s report no later than 19 September 2013. Upon receipt of such comments, the Respondent will be invited to file his response no later than 9 October 2013.*
>
> *2. Following the agreement of the Parties and at the direction of the Panel, the Parties are invited to file comments concerning the testimony of Dr. Saugy with respect to the paper entitled "The effect of a period of intensive exercise on the isoform test to detect growth hormone in doping in sports". The Parties' comments are due no later than 19 September 2013*".

139. At the end of the hearing, Mr. Patrick Sinkewitz made a personal statement. He referred to the fact that, following his first positive test in 2007, he facilitated the authorities' investigations and proceedings by making an unreserved confession and voluntarily cooperating as principal witness. Furthermore, he referred to the long duration of the proceedings and that he, although not suspended, was not able to sign an appropriate contract with a cycling team.

140. The President of the Panel announced that, after having received the post-hearing briefs, unless a further hearing might be needed, the award will be pronounced in due course.

141. No objections were raised concerning the conduct of the hearing.

142. Following the closure of the hearing, under cover of a letter dated 30 August 2013, Professor Hanley's "Report prepared for the WADA" was handed to the Parties and the Panel. The Appellant was invited to file its comments on that report no later than 19 September 2013 and the Respondent to file his comments no later than 9 October 2013. With regard to the testimony of Dr. Saugy, the Respondent was invited to file his comments no later than 19 September 2013, while the Appellant´s comments were due 9 October 2013.

VI. POST-HEARING BRIEFS

143. The time-limit to comment on Dr. Saugy's testimony, upon agreement of the Parties, was extended until 23 September and 13 October 2013, respectively.

144. By letter dated 23 September 2013, the Respondent filed his comments on Dr. Saugy's testimony claiming that he was wrong in testifying that the study in question was conducted on "*elite athletes*" rather than on amateurs cyclists and triathletes. The Respondent referred to the testimonies of both Professor Scholz and Dr. Pitsch and introduced an additional written expert statement by Professor Hofbauer, and concluded that the assumption of a stable rec/pit ratio of the isoforms which is a precondition for the applied test is wrong. The ratio depends on individual circumstances of the athlete and the sample collection.

145. In its submission of 23 September 2013, the Appellant commented on both the testimony of Dr. Saugy and the report of Professor Hanley. With regard to the study which was co-authored and referred to by Dr. Saugy, the Respondent noted that the study was conducted not on professional but trained athletes of an advanced level in cycling and triathlon who underwent a 9-stage cycling race. The paper comes to the conclusion that "*there is no clear evidence that the hGH isoforms ratios are affected by circadian variation or by the type of exercise*". Furthermore, the study identified a "*high individual variability for the hGH isoforms ratio*" but the maximum values do not come even close to the published DL for the hGH Test. The Appellant concluded that "*the results of this study showed are that the effects of heavy long term exercise do not interfere with the decision limits for any adverse analytical finding*".

146. With regard to the report of Professor Hanley, the Appellant noted that this study was made in order to respond to the criticism expressed in the *Veerpalu* award. The new study included more than 21'900 determinations made by 30 WADA accredited laboratories from January 2009 to March 2013, even highly suspicious atypical findings. The only data excluded were those samples which were provided by athletes that have administered, under a TUE, or doped with hGH.

147. The Appellant concluded that the Hanley report confirms the published DL. However, as the Appellant noted, the study "*arrives at a slightly different DL for kit 2 because it incorporates a much higher number of samples and laboratories*": 1.87 instead of 1.68 for kit 2 while 1.81 for kit 1 is confirmed. The adjusted DL for kit 2 "*reflects the upper 95 confidence limit of the most conservative estimates (which range between 1.67 to 1.77, in dependency of the concentration range)*".

148. In conclusion, the Appellant noted that the ratios found in the Athlete´s samples are "*far higher*" than the DL published in the hGH Guidelines and also "*the most conservative estimate in the (Hanley) report for kit 2 (kit 1: 1.81, kit 2: 1,87)*".

149. Upon receipt of the Respondent's comments on Dr Saugy's testimony, the Appellant, by letter dated 26 September 2012, opposed the submission of the expert testimony of Professor Hofbauer as new evidence submitted after the closure of the hearing. The Respondent was given the opportunity to comment on the Appellant's challenge and

replied on 2 October 2013 justifying the new expert statement as necessary for his defence.

150. By order of 19 December 2013, the Panel refused to admit the expert evidence of Professor Hofbauer.

151. By letter dated 2 October 2013, the Respondent requested an extension of time to submit his comments on the Hanley study until 16 December 2013. In reply, the Appellant considered such extension "*excessive*" but assented to an extension of 20 days. By order dated 10 October 2013, the Panel extended the Respondent's deadline until 2 December 2013.

152. On that day, the Respondent submitted his comments on the report of Professor Hanley with extensive annexes. In this submission, the expert statements of Dr. Pitsch, Professor Scholz and Professor Lorenz Hofbauer, Head of the Division of Endocrinology of the University of Dresden, were reproduced and reference was made to earlier submissions and expert statements. The Respondent concluded that, with regard to the claimed *stable ratio*, the Appellant's argumentation "*is wrong*" and to the contrary, "*empirically proven*". It is further submitted that the McGill Report "*is based on a crude method and even ignores the CAS recommendations for data management in studies to determine decision limits for prohibited substances (f.e. outlier removals)"*. Furthermore, the Respondent claimed that the "*data of Assay performance [is] still kept in secret by Appellant"*.

153. In response, by letter of 23 December 2013, the Appellant rejected the "*inappropriate*" assaults against the authors of the Hanley report. By order of 24 December 2013, the Panel rejected that submission as delayed and stated that the post-hearing submissions were closed.

VII. ADMISSIBILITY

154. Article R49 of the Code provides as follows:

> "*In the absence of a time limit set in the statutes or regulations of the federation, association or sports-related body concerned, or of a previous agreement, the time limit for appeal shall be twenty-one days from the receipt of the decision appealed against. After having consulted the Parties, the Division President may refuse to entertain an appeal if it is manifestly late*".

155. The above-reported provision of the Code, therefore, allows that the time-limit of 21 days for the filing of the appeal may be derogated by the statutes or regulation of the association concerned. In this regard, it must be noted that Article 333 of the UCI-ADR provides that:

> "*The statement of appeal by the* Licence Holder *or the other party to the case must be submitted to the CAS within 1 (one) month of his receiving the full decision…*"

156. The DIS-Award, reporting the grounds on which it is based, was communicated to Appellant on 21 June 2012.

157. On 12 July 2012, Appellant filed its Statement of Appeal against the DIS-Award.

158. By letter dated 7 August 2012, the CAS Court Office informed the Parties that the time-limit for the filing of the Appeal Brief had been extended until 3 September 2012 (see par. 25 above).

159. On 3 September 2012, the Appellant filed its Appeal Brief, thereby complying with the time-limits prescribed by the UCI-ADR and by the Code.

160. The appeal is, therefore, admissible.

VIII. JURISDICTION

161. Article R47 of the Code provides as follows:

> "*An appeal against the decision of a federation, association or sports-related body may be filed with the CAS insofar as the statutes or regulations of the said body so provide or as the parties have concluded a specific arbitration agreement and insofar as the Appellant has exhausted the legal remedies available to him prior to the appeal, in accordance with the statutes or regulations of the said sports-related body*".

a) Decision of a federation

162. NADA appeals the award rendered by the DIS Arbitral Tribunal, which has been designated by NADA for the administration of arbitrations arising from alleged ADRV. NADA itself had been entrusted with the results management and the disciplinary proceedings within the realm of the BDR which, on its turn, implements the UCI-ADR. Through this chain of authorizations the award of the DIS Arbitral Tribunal of 19 June 2012 is to be associated with the BDR, the German national federation for cycling, and therefore constitutes a "*decision of a federation*" in the sense of Article R47 of the Code.

b) Statutory Reference

163. Article 329 UCI-ADR, § 16a of the Statutes of the BDR, and the agreement between BDR and NADA together with the agreement between NADA and the DIS as well as Rule 38.2 DIS Arbitration Rules for Sports-related Arbitration ("DIS AR"), which provide for an appeal against awards of the DIS Arbitral Tribunal before the CAS, constitute a statutory reference to CAS. As stated above (see par. 162 above) the decision of the DIS Arbitral Tribunal represents a decision of a hearing body in the sense of Article 329 no. 1 UCI-ADR which, according to Articles 330 and 334 UCI-ADR, can be appealed by the Appellant as the national anti-doping organisation.

c) Arbitration Agreement

164. In addition to the statutory basis, the jurisdiction of the CAS is also based on the *Schiedsvereinbarung* signed by Respondent on 17 January 2011. As ruled in the Partial Award of 21 March 2013, this agreement constitutes a specific arbitration agreement within the meaning of Article R47 of the Code.

> "*Schiedsvereinbarung*
>
> *Der BDR bietet dem Athleten unwiderruflich den Abschluß einer Schiedsvereinbarung an. An dieses Angebot hält sich der BDR bis zum 15. Februar 2011 gebunden. Der Athlet kann dieses Angebot nur bis zu diesem Zeitpunkt unbedingt annehmen.*
>
> *....*
>
> *1. Alle Streitigkeiten in Doping- sowie Nominierungsverfahren und/oder die sich aus oder im Zusammenhang mit der Athletenvereinbarung vom ... (Datum) oder über deren Gültigkeit ergeben, werden nach Abschluß des Verbandsrechtsweges des BDR durch das Deutsche Sportschiedsgericht nach der Sportschiedsgerichtsordnung der Deutschen Institution für Schiedsgerichtsbarkeit e.V. (DIS) (DIS-SportSchO) - unter ausdrücklichem Aussschluß des ordentlichen Rechtsweges - entschieden. Der einstweilige Rechtsschutz durch staatliche Gerichte ist gleichfalls ausgeschlossen. Die Anzahl der Schiedsrichter beträgt 1. Die Sprache des schiedsrichterlichen Verfahrens ist Deutsch.*
>
> *2. Überträgt der BDR das Ergebnismanagement für Dopingverfahren im Jahr 2011 auf die NADA, mit der Folge, daß Disziplinarverfahren wegen eines Dopingverstoßes unmittelbar beim Deutschen Sportschiedsgericht der Deutschen Institution für Sportschiedsgerichtsbarkeit e.V. (DIS) durchzuführen sind, wird dieses Verfahren durch das Deutsche Sportschiedsgericht nach der Sportschiedsgerichtsordnung der Deutschen Institution für Schiedsgerichtsbarkeit e.V. (DIS) (DIS-SportSchO) - unter ausdrücklichem Ausschluß des ordentlichen Rechtsweges - entscheiden. Der einstweilige Rechtsschutz durch staatliche Gerichte ist gleichfalls ausgeschlossen. Die Anzahl der Schiedsrichter beträgt 1. Die Sprache des schiedsrichterlichen Verfahrens ist Deutsch.*
>
> *3. Nach § 38.2 der DIS-SportSchO kann in einer Streitigkeit, die einen Verstoß gegen Anti-Doping-Bestimmungen zum Gegenstand hat, gegen den Schiedsspruch ein Rechtsmittel zum Court of Arbitration for Sport (CAS) in Lausanne eingelegt werden*".

d) Exhaustion of the Internal Remedies

165. As required by Article R47 of the Code, Appellant, by having been an active party to the arbitration before the DIS Arbitral Tribunal, has

> "*exhausted the legal remedies available to him prior to the appeal, in accordance with the statutes or regulations of the said sports-related body*".

e) *res judicata*

166. The Partial Award on jurisdiction of 21 March 2013 which determined that CAS has jurisdiction to hear the present dispute (par. 98 of the Partial Award) was not appealed before the Swiss Federal Tribunal and, therefore, became final and binding.

IX. APPLICABLE LAW

167. Article R58 of the Code provides as follows:

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

168. On 27 February 2011, the Athlete participated in an international cycling competition organised under the auspices of the UCI and was submitted to a doping control on behalf of the UCI. Therefore, the rules and regulations of the UCI, including the UCI-ADR apply. Those, according to Article 1 par. 3, 4, and 5 of the Introduction to Part 14 of the UCI Cycling Regulations on "Anti-Doping" "*incorporate*" the WADA Code effective as of 1 January 2009. The rules of the WADA Code are duplicated in the provisions of the Part 14.

169. The applicability of the UCI-ADR in the case of an appeal before the CAS is confirmed by Article 345 UCI-ADR which provides that

> "*(t)he Cas shall decide the dispute according to these Anti-Doping Rules and for the rest according to Swiss law*".

Article 1 UCI-ADR confirms that "*these Anti-Doping Rules apply to all Licence-Holders*".

170. The applicability of the UCI-ADR, the WADA Code, or the CAS Code was not contested by either Party.

X. SCOPE OF REVIEW

171. According to Articles R57 of the Code and 344 UCI-ADR,

> "*(t)he Panel has full power to review the facts and the law. It may issue a new decision which replaces the decision challenged or annul the decision and...*"

Therefore, this proceeding before the Panel is *de novo*.

XI. MERITS

A. Anti-Doping-Rule Violation

172. The Athlete was tested in-competition and the analysis of his samples performed by the hGH Test was reported positive for hGH. In its challenged decision, the DIS Arbitral Tribunal found that the determination of the DL published in the hGH Guidelines were not scientifically reliably proven before it and, therefore, acquitted the Athlete from having committed an ADRV.

a) Legal framework

(i) The ADRV

173. Article 19 UCI-ADR defines doping "*as the occurrence of one or more of the anti-doping rule violations set forth in article 21*". According to Article 21.1 UCI-ADR "*(t)he presence of a Prohibited Substance (...) in a Rider´s bodily Specimen*" constitutes an ADRV. Prohibited substances are defined in the Prohibited List published and revised annually by the WADA which is "*incorporated*" by virtue of Article 29 UCI-ADR. The Prohibited List 2011, which was applicable at the material time, under S2.5, names "*growth hormone*" as prohibited both in- and out-of-competition.

174. According to Article 31 UCI-ADR, WADA's determination of the prohibited substances that are included in the Prohibited List cannot be challenged by an athlete. However, the specific DL are not mentioned in the Prohibited List but determined by the hGH Guidelines.

(ii) Burden and standards of proof and means of evidence

175. Pursuant to Article 21.1.2 UCI-ADR, an ADRV in the form of the presence of a prohibited substance is sufficiently proven where the "(...) *B sample confirms the presence of the Prohibited Substance (...)*". According to Article 22 UCI-ADR, the burden of establishing that an ADRV has occurred lies with the UCI and its National Federation concerned. As the BDR, which was requested by the UCI to conduct the results management, has entrusted and authorized the NADA to conduct the results management and to prosecute ADRVs, NADA has the burden of proof.

176. Therefore, according to Article 22 UCI-ADR the Appellant has to establish the ADRV "*to the comfortable satisfaction*" of the Panel "*bearing in mind the seriousness of the allegation*". This standard of proof is "*greater than a mere balance of probability but less than proof beyond reasonable doubt*". On the other hand, where the UCI-ADR place the burden of proof on the Athlete to rebut a presumption, according to Article

22 UCI-ADR, the standard of proof is "*by a balance of probability*". The methods of establishing facts or presumptions, as provided for in Article 23 UCI-ADR, include "*any reliable means*".

177. According to Article 24 UCI-ADR, "*WADA-accredited laboratories (...) are presumed to have conducted Sample analysis and custodial procedures in accordance with the International Standards for Laboratories*" while athletes may rebut that presumption by establishing that, first, departures from the ISL occurred and, second, that the departure "*could reasonably have caused*" the AAF. If the athlete rebuts the presumption the burden of proof shifts back to NADA to establish that the departure did not cause the AAF.

178. Finally, as a general rule, according to Article 25 UCI-ADR,

> "*departures from any other International Standard, these Anti-Doping Rules, the Procedural Guidelines set by the Anti-Doping Commission or any other applicable anti-doping rule or policy or technical document which did not cause an (AAF) ... shall not invalidate such findings or results*".

b) Sample collection and chain of custody

179. The reliability of the sample collection including the chain of custody has not been challenged. The time of the sample transportation to the laboratory of 33 hours was within the recommended standard of 24 to 36 hours. The temperature of the storage during transportation of 11.6 °C at the highest was within the recommended standard of 2 °C to 12 °C.

c) Results of the analysis

180. The readings of the analysis results and, based on these findings, the calculation of the ratios found on the Respondent's samples were not challenged. The representatives of the Respondent present at the opening of the B-sample in the laboratory confirmed the correctness of the opening and of the analysis of the B-sample.

d) Departures from the ISL

181. The Respondent claimed that departures from the ISL were indicated by the following.

182. The Respondent claimed that the difference between the ratios established on the basis of the A- and B-sample (A-sample: 2.45 for kit 1 and 2,42 for kit 2; B-sample: 3,16 for kit 1 and 2.34 for kit 2) invalidated the test. However, Article 21.1.2 UCI-ADR does not require that the analyses of the A- and B-samples show identical results but rather that the analysis of the B-sample "*confirms the presence of the Prohibited Substance*". That is confirmed when the B-sample analysis shows values which indicate the presence of the prohibited substances. Moreover, the Panel is satisfied with the explanations given by expert witnesses at the hearing that the B-sample analysis is performed by using different anti-bodies and, therefore, leads to different values.

183. The difference between the ratios found in kit 1 of the A- and B-sample, respectively was claimed to be beyond the intra-assay variability of 10 % provided in the hGH Guidelines. However, this figure is not a requirement provided in the ISL but a mere recommendation formulated in the hGH Guidelines and, according to the expert witnesses heard at the hearing, an exceeding of this figure cannot reasonably cause a false AAF.

184. The Respondent did not rebut the presumption that the sample analysis was conducted in accordance with the ISL, provided for by Article 24 par. 1 UCI-ADR, or in accordance with other relevant documents such as the hGH Guidelines, as provided for in Article 25 UCI-ADR. But even if a departure from these rules had occurred, the Respondent failed to establish by a balance of probabilities that these departures could reasonably have caused a false AAF.

e) Individual circumstances

185. "With great emphasis, the Respondent claimed that individual circumstances such as intense exercise and stress as well as age and ethnicity of an athlete and the time of the sample collection may influence the ratios of rec/pit hGH. Individual circumstances were essentially put forward as "co-variables" in order to challenge the validity of the determination of the DL (see par. 207 et seq. below)."

f) Reliability of the DL

(i) Arguments of the Parties

186. Essentially, the Respondent challenged the reliability of the DL published in the WADA Guidelines on hGH Isoform Differential Immunoassays for Anti-Doping analyses (“hGH Guidelines”) of 2010, applicable at the material time. With reference to the *Veerpalu* award he claimed that the reliability of the DL is part of the testing and must be proven by the Appellant (*Veerpalu* par. 202).

187. The Respondent submitted that the correctness of the determination of the DL was not scientifically proven and, therefore, the DL not reliable. In summary, the following arguments were being made:

- There was an alleged lack of quality of the data used for establishing the limits at issue. Those data, in particular, were incomplete and have been unsystematically collected and, in any case, not in accordance with the standard of “*good scientific practice*”.

- The data provided by the Appellant in these proceedings, which were the only data available to the Respondent, were not sufficient for excluding those factors, not considered when setting the DL, could have an impact on the hGH isoform ratio. On the contrary, there were indications suggesting that such factors, in particular ethnicity, physical exercise, sport discipline practiced, time of the sample collection and age, may have an influence on the hGH ratio.

- As a consequence, it must be concluded that the DL were highly anti-conservatively set, since the possibility of a "false positive" when analysing a sample with the hGH Test in the light of the DL could not be adequately excluded.

- In addition, the "*parametric approach*" used for establishing the DL was questionable and, in any case, even according to such approach, the DL should have been set at a significantly higher level.

- The calculations made by WADA for evaluating the reliability of the DL, moreover, did not take in consideration additional important factors among which, in particular, the "*positive predictive value*", so that the evidence, which the results of the hHG Test may provide, was much "*weaker*" than alleged by the Appellant. More specifically, on a set of scale for the standard of proof, the fact that the ratio detected on a sample exceeds the DL showed nothing more than that an athlete is "*likely*" to have been administered hGH.

188. In return, the Appellant maintains that the reliability of the DL may not be put in question. The Appellant's opinion is based on the following arguments:

- As of the hearing date, a large number of tests have been performed with the same method that was used for the Respondent's samples (*i.e.* the hGH Test) and in all of those tests the consistency of the DL has been confirmed, as it is indicated also by the fact that the athletes whose values were found to exceed the DL admitted the use of recGH or were, in any case, eventually sanctioned for an anti-doping rule violation with the only exception of three cases, with the Respondent's case among them (par. 127).

- Contrary to what the Respondent asserts, the scientific literature dealing with the issue of hGH and the studies conducted by WADA for the implementation of the hGH Test showed that factors such as, in particular, ethnicity, physical exercise, sport discipline practiced, time of the sample collection etc., did not have any significant impact on the hGH ratio. The mentioned factors, indeed, may have an influence on the overall secretion of hGH, but the ratio would remain, in any case, stable.

- Considering all the results emerging from the data collected, the DL were conservatively set.

- It could also not be maintained that different kinds of tests, *e.g.* the "bio-marker test", are more reliable than the hGH Test for establishing whether an administration of hGH occurred.

- The conservative nature and the reliability of the DL was finally confirmed by the margin of tolerance of at least 99,99% by which any false positive was excluded and by the admission of "*false negatives*" to an even higher degree.

(ii) The legal nature of the DL

189. According to Article 24.6 WADA Code, the "*Purpose, Scope and Organization of the World Anti-Doping Program and the Code*" as well as the Code itself and its Appendix I on definitions are "*integral parts of the Code*". According to that "*Purpose, Scope and Organization (...)*" which represent the overall introductory part of the WADA Code and are placed in front of the various parts of the Code, "*the International Standards (are) mandatory for compliance with the Code*" and are "*expressly incorporated into the Code by reference*". These references can be found in various Articles of the WADA Code such as Article 3.2.1. In contrast, Guidelines are not referenced in the relevant provisions of the WADA Code. Furthermore, the "*Purpose, Scope and Organization (...)*" distinguish between the International Standards, on the one hand, and Models of Best Practice and Guidelines, on the other hand, and do not confer a mandatory effect to the Guidelines.

190. According to Article 1.0 of the Introduction to the ISL, Version 6.0, "*the ISL, including all Annexes and Technical Documents, is mandatory (...)"*. The hGH Guidelines are neither an Annex to the ISL nor a Technical Document.

191. Article 1 of the hGH Guidelines, Version 1.0 of 2010 applicable at the material time, provides that

> "(...) [t]*he guideline provides direction on the Sample pre-analytical preparation procedure, the performance of the test(s) and the interpretation of the test results*"

According to Article 2 of the hGH Guidelines,

> "(...) [t]*his guideline contains additional recommendations to facilitate the implementation of the testing procedures particular to hGH detection*".

When WADA differentiates the various levels of its documents on its website it states, that Model Rules and Guidelines

> "*provide recommended solutions to the Stakeholders in different areas of anti-doping*".

192. The Panel concludes from foregoing that the hGH Guidelines, including the DL contained in it, are not mandatory but rather a mere recommendation addressed to the WADA accredited laboratories. The DL are not legally binding as such and, therefore, do not legally constitute what an ADRV is. The values of the DL do not have the legal force to distinguish between doping (above the DL) and non-doping (below the DL). They do not mean that ratios below the DL are allowed. They are exclusively meant to instruct the laboratories which findings of rec/pit ratios should be reported as AAFs. Expert witnesses heard at the hearing stated that the DL only recommend which test results shall be reported, and that findings below the DL may be an ADRV, but are not reported.

g) Proof of the ADRV

193. The Panel concludes from the legal nature of the DL, *i.e.* from the lack of legal force, that the reliability of the DL as such is not a mandatory precondition in order to prove that the ratios found on the Respondent's samples show the presence of exogenous rec hGH. As they do not have a legal value as such and, therefore, do not legally determine whether or not a prohibited substance is present in an athlete's body, they merely are a means of evidence to prove an ADRV. Even if the determination of the DL would have been unreliable this would not trigger the conclusion that no ADRV occurred.

(i) Reliability of the hGH Test

194. The hGH Test is a reliable testing method. This has been expressly recognized in the award of both the DIS in the matter of Respondent and the CAS in *Veerpalu* (*Veerpalu* par. 183, 233). The reliability of the hGH Test was not challenged in the dispute before the Panel.

(ii) Reliability of the results of the analysis

195. The reliability of the hGH Test includes the reliability of the results of the analysis of the Respondent's samples, *i.e.* the values found and the ratios calculated. The Respondent did not challenge that the ratios actually found on his samples were correctly established. What remains is the assessment whether or not the specific ratios found on the Respondent's samples reveal an ADRV. This, however, follows the analysis and is not part of the test itself. This is confirmed by the fact that the DL are mentioned in the 6th part of the hGH Guidelines which deals with "*Reporting and Interpretation of Results*". This clearly indicates that the DL aim at interpreting the results at a stage where the analysis of the samples, *i.e.* the test itself, already was terminated.

(iii) Standard of Proof

196. According to Article 22 UCI-ADR, the Appellant has the burden to prove *to the comfortable satisfaction* of the Panel that the Respondent committed an ADRV in the form of the presence of a prohibited substance, according to Article 21.1 UCI-ADR.

(iv) Prohibited Substance

197. "Growth hormone" is a prohibited substance listed under S2.5 of the Prohibited List 2011.

(v) Deviations from the ISL or hGH Guidelines

198. According to Article 24 UCI-ADR, the Lausanne Laboratory is presumed to have performed the analyses of both the A- and B-samples in conformity with the ISL. The Respondent was not able to prove by a balance of probability that the alleged departures from the ISL actually took place or that they could reasonably have caused a false AAF (par. 184). The presumption of the compliance with the ISL has not been rebutted.

199. The results of the A- and B-sample analyses as AAF were reported by the Lausanne Laboratory in compliance with the DL published in the hGH Guidelines. This does not constitute any violation of the applicable rules and regulations or other applicable documents.

(vi) Means of evidence

200. As a general rule, Article 23 UCI-ADR provides that

> "*facts related to anti-doping rule violations may be established by any reliable means (…)"*

The standard of proof is "*to the comfortable satisfaction*" of the Panel as laid down in Article 22 UCI-ADR. Hence, the Appellant has to establish that the Respondent committed an ADRV, *i.e.* that hGH as a prohibited substance was present in the Respondent's body or, more precisely, that the ratios found on the Respondent's samples were due to exogenous rechGH.

201. The rec/pit hGH ratios which were found are a matter of fact. The DL, due to their lack of legal value, do not determine whether or not the ratios indicate what is legal or non-legal but merely represent a tool for the laboratories how to interpret the results of the test and, depending on that assessment, whether or not to report them as an AAF (par. 192). The DL as published in the hGH Guidelines generalize the collective experience of the laboratories put together by WADA. Non-reliable or even non-existing DL would not invalidate the ratios found on the Respondent's samples.

(vii) Evaluation of the ratios found on Respondent's samples

202. Therefore, the Panel proceeds to examine whether or not the Respondent committed an ADRV irrespective of the reliability of the determination of the DL published in the hGH Guidelines for the material time. At the hearing, the Panel expressly requested the relevant expert witnesses to evaluate the ratios found in the Respondent's samples irrespective of or even in the absence of the DL set in the hGH Guidelines.

203. Both the DIS Arbitral Tribunal and the CAS panel in *Veerpalu* did not come to the conclusion that the DL published in the hGH Guidelines were actually unreliable (*Veerpalu*, par. 206 3rd subpar.). They rather stated that the reliability of the determination of the DL was not sufficiently proven before the respective panels, in particular due to a lack of information and documentation. In *Veerpalu*, the panel, in essence, based its conclusion on the fact that the raw data which underlie the determination of the DL were not provided and that the number of samples which were used for the determination of the DL was not sufficiently large (*Veerpalu*, par. 206).

204. Furthermore, the *Veerpalu* award is essentially based on the fact that the ratio of 2.0 found on kit 2 of the B-sample is close to the DL of 1.81 (*Veerpalu*, par. 205, 3rd subpar., 206, 4th subpar.). Compared to *Veerpalu* (2.73 in kit 1 and 2.00 in kit 2 of the B-sample), the ratios found on the Respondent's B-samples are far higher than the DL published in the hGH Guidelines: 3.16 in kit 1 and 2.34 in kit 2 compared to the DL of

1.68 for kit 1 and 1.81 for kit 2. Hence, the ratios in the case of the Respondent are not a borderline situation which might trigger the benefit of uncertainty for the Athlete as the panel did in *Veerpalu* (*Veerpalu*, par. 206, 2nd subpar.).

205. The Panel is of the view that the findings in both the *Veerpalu* award and the DIS award do not undermine the reliability of the DL as such and do not prevent the Panel from taking into consideration the ratios found in the Respondent's samples as a means of evidence. The Panel does not have to scientifically evaluate the process of the determination of the DL and can restrict itself to evaluating the persuasive weight of the expert testimonies before it. The panel in *Veerpalu* essentially based its conclusion on technical issues such as late or incomplete provision of information and data by the federation (*Veerpalu*, par. 203, 234).

(viii) Evaluation of the evidence before the Panel

206. Based on the testimonies of the expert witnesses heard at the hearing and the written evidence submitted by the Parties, the Panel evaluated the evidence before it and comes to the following conclusions.

- **Individual circumstances**

207. The Panel observes that seven of the experts (Professors Ho, Thevis, Ayotte, Strasburger as well as Dr. Saugy, Dr. Barroso and Dr. Bidlingmeier) consistently testified that there is no evidence in literature and according to their experience that external factors and individual circumstances such as extensive exercise, stress, altitude, the kind of sport, the age and ethnicity of the athletes or the time of the sample collection, affect the ratio of rec/pit hGH. Those factors may influence the overall excretion of hGH but not its isoform composition and, therefore, the ratio remains stable.

208. This is confirmed by the study *"The effect of a period of intensive exercise on the isoform test to detect growth hormone doping in sports"* co-authored by Dr. Saugy together with Voss, Giraud *et al.* which was subject of the post-hearing submissions. Here, based on his understanding of this study, the Respondent submitted that the fact that he competed in a 200 km race with an average speed of 40 km/h on the day before the sample collection, that his regular sleep patterns were disturbed over night and the doping control took place at 6.20 h in the morning *"can have led"* to the values found in Respondent´s samples. With reference to Dr. Saugy´s *"Additional Comments"* to the study, Appellant submitted that the results of this study show that factors like intense exercise do not interfere with the DL (see par, 150 above)."

209. Professors Scholz and Kratzsch, experts called by the Respondent, testified that the data provided by the Appellant were not sufficient to exclude that individual circumstances and external factors may affect the results of the test (Professor Scholz) and that there are only a few papers which deal with external factors but that those factors were potentially capable to influence the hGH ratio, and that external factors had not been sufficiently taken into account when determining the DL (Professor Kratzsch).

210. Having thoroughly weighed the experts testimonies, the Panel is satisfied that individual circumstances and external factors such as extensive training, stress, the kind of the sport, altitude, the time of the sample collection, and the age and ethnicity of the athlete do not affect the ratios of rec/pit hGH. It is convinced by the scientific explanation that the overall production of hGH may be influenced but not the composition of the isoforms and, therefore, the ratio remains stable. In contrast, the ratios are severely affected if recGH in the form of 22 kDa hGH, as available on the market, is administered. Ultimately, the experts called by the Respondent merely argued that it cannot be excluded that external factors may impact on the ratios of hGH (which the Appellant´s experts denied) and, therefore, the determination of the DL was not reliable. The *study by Voss, Giraud et.al.* together with the explanations provided by Dr. Saugy clearly demonstrate that *"the hGH isoform ratios are not significantly affected by exercise or circadian variation*s". All isoform ratios measured during that study were *"far below"* the DL.

- **Incomplete data, statistical methods**

211. The submissions made by the Respondent and the testimonies provided by the experts summoned by the Respondent (Professors Kratzsch, Scholz and Dr. Pitsch) essentially stated that, first, the quality and the size of the data used for the determination of the current DL were not sufficient to properly assess the reliability of the DL, that, second, the unsystematical collection of the data did not meet the standards of good scientific practice, and, third, that the statistical methods used for determining the DL were inappropriate or, at least, questionable. Professor Scholz proposed that, by using adequate data and methods, the DL should be "*significantly higher*" than the current ones.

212. The submissions and expert testimonies with regard to the data base and the statistical methods of determining the DL may, if correct, show weaknesses or alternatives in the statistical calculation. However, they are not of a kind to establish that the determination of the DL made on behalf of WADA is wrong or scientifically not acceptable and would result in a determination of DL in a range above the ratios found on the Respondent's samples. Only in such a situation the Panel would be prevented from assessing the Respondent's ratios as revealing the presence of recGH.

213. The Panel takes note that the studies on behalf of the WADA which support the determination of the DL were conducted exclusively on the basis of samples taken from athletes which were submitted to a doping control and whose samples were tested in WADA-accredited laboratories which were available at the time. That explains why the number of samples and, therefore, the size of data available is limited compared to general human medicine. Professor Ayotte expressly opposed to the assumption of Professor Scholz that the DL should be significantly higher than the current ones.

- **Evaluation of the ratios found on Respondent's samples**

214. At the hearing, the Panel expressly asked the experts to explain their opinion on whether the ratios found in the Respondent's sample, even leaving aside the current DL, demonstrate the presence of recGH. Consistently, Professors Ho, Thevis, and

Ayotte, and Dr. Saugy, Dr. Barroso, and Dr. Bidlingmeier testified that, according to their experience, the ratios of the Athlete were substantially higher than the average and particularly "*abnormal*" and "*clearly*" show an AAF and that recGH was administered. In contrast, the experts called by the Respondent testified that, according to their experience, the possibility of a false positive cannot be excluded and that it could not be concluded with adequate certainty that the values detected are due to the administration of hGH (Professor Kratzsch); these statements essentially were made due to the fact that "*not enough data*" were available. Dr. Pitsch stated that it was not more than "*likely*" that an ADRV was committed.

215. The Panel notes that the experts summoned by the Appellant testified on the basis of their vast experience in doping analysis and hGH in human medicine, while the experts called by the Respondent referred to their general evaluation of the data available for the determination of the DL, only stated in general terms that a false positive could not be excluded or that it could not be concluded with adequate certainty that hGH was administered. Based on those testimonies the Panel is convinced that the ratios found in the Respondent's samples clearly indicate the presence of exogenous recGH and that those elevated ratios cannot be explained by natural sources but only by the administration of recGH.

- **Credibility of the testimonies**

216. The Panel finds no reason to believe that the expert witnesses summoned by the Appellant were biased in the Appellant's favour. These experts heard by the Panel are of international reputation as directors of WADA-accredited laboratories or scientist in the relevant area or, with regard to those who developed the hGH Test, as scientists in leading universities. There is no indication that, in the dispute before the Panel, these experts would put their reputation at stake.

- **The bio-marker test**

217. Based on the expert testimony of Professor Thevis, the Panel finds that the bio-marker test is not more reliable than the hGH Test but differs in its scope of application. The bio-marker test is not designed to detect single administration of hGH within the time -frame of twelve hours prior to the sample collection. Furthermore, there is no right to be re-tested by using a testing method other than that provided by the applicable rule, as claimed by the Respondent.

- **ADRV proven**

218. Based on the foregoing the Panel concludes to its comfortable satisfaction that the ratios found on the Respondent's samples reveal the presence of recombinant hGH.

(ix) The McGill Report

219. The assessment that the ratios found in the Respondent's samples reveal the presence of recGH is supported by the Hanley Report of 2013 which was designed to confirm the DL. This report, however, is taken into account by the Panel as a scientific study performed by experts, even leaving aside the consequences drawn from this study, *i.e.*

the determination of the DL. This report which has been admitted as evidence to the proceedings (par. 137) is taken into consideration by the Panel as expert evidence of facts.

220. Right after the *Veerpalu* award was pronounced WADA announced to commission a new study in order to determine the DL anew. Since then, in the further course of the proceedings before the Panel, the Appellant repeatedly referred to that study in progress and requested the Panel to admit the results of this "DL-Review". The study, dated 11 August 2013, became available to the Appellant only shortly before the hearing which was already scheduled. At the beginning of the hearing, the Appellant requested to admit the study together with the oral expert testimony of Professor Hanley who was the leader of the team which conducted the research. In order to respect the Respondent´s right to be heard and the principle of equal treatment of the Parties the Panel decided to admit the DL Review and the expert testimony of Professor Hanley merely on the content of the new study for a round of post-hearing submissions (par. 137 *et seq*.).

221. The study "*Analysis of the data from human Growth Hormone (hGH) Isoforms Differential Immunoassays in sportspersons, with the objective of setting test compliance decision limits to detect doping with hGH prepared for the WDA*" was performed by Professors James Hanley and Olli Saarela, both of the Department of Epidemiology, Biostatistics and Occupational Health, and Professor David Stephens, Department of Mathematics and Statistics, all of them from the McGill University, Montreal. This study, now called "McGill Report", confirmed the DL in the range of the values published in the hGH Guidelines applicable at the material time. The DL value for kit 1 as 1.81 was exactly re-confirmed while the value for kit 2 was modified from 1.68 to 1.87. The study was conducted on a much broader basis than the previous determination of the DL and with an improved methodology.

222. The DL as determined by the McGill Report have been published in Article 7 of Version 2.0 of the hGH Guidelines of January 2014.

223. The admission of the McGill Report does not conflict with the prohibition to apply the WADA Code retroactively, set forth in Article 24.5 WADA Code. The DL are published in the hGH Guidelines which do not form part of the WADA Code nor of the International Standards and, therefore, are not to be considered as a legal rule (par. 189 *et sequ*.).

224. The data which underlie the McGill Report include 21'943 determinations performed by 30 WADA-accredited laboratories between January 2009 and March 2013; *i.e*. include the data sets of the "Initial Study" and the two "Verification Studies" which lead to the determination of the DL applicable at the material time. Even "*highly suspicious*" atypical findings are included while excluded were only those samples which came from athletes that had been administered, on a TUE, or admittedly doped with hGH or accepted the result without challenging it.

225. As shown in Figure 2 attached to the McGill Report the findings for males for kit 1 and kit 2 are mostly below a ratio of 1.5 and all of them below the ratios of the Respondent the lowest of which is 2.34 for kit 2 of the B-sample. Figure 4a shows that

almost the entirety of the determinations made on the samples by the laboratories for males are below the ratio of 1.5 for kit 1 and kit 2 while the various symbols above the ratio of 1.5 indicate atypical findings, including AAFs, treatment under a TUE or admitted use of hGh.

(ix) The right to be heard and to a fair trial

226. The Respondent claimed on various occasions that his right to be heard and to a fair trial was violated. Having thoroughly reviewed the proceedings before it, the Panel finds that no such violation occurred. The Respondent was granted ample opportunity to make his submissions and comments. The fact that the Appellant called more experts than the Respondent does not constitute a non-respect of the equality of arms. The refusal of providing a test kit of the hGH Test to the Respondent and to provide more data concerning the determination of the DL does not violate the right to be heard. Both the Appellant and the Respondent are equally bound by the UCI-ADR, the WADA Code and related rules and, therefore, the determination of the DL is outside the area of responsibility of the Appellant. Furthermore, according to Article R29 of the Code , the proceedings before the CAS are, unless the parties and the Panel agree otherwise, conducted in English (or French). In this relation, a lack of resources for translation and the alleged differences in resources between the Respondent and the Appellant do not put into question the fairness of the proceedings *per se* if, as in the case at hand, the Appellant has not availed himself of the legal aid mechanisms providing, *inter alia*, the assistance of a *pro bono* counsel fluent in the language of the proceedings.

B. Sanction

a) Sanction for the ADRV committed on 27 February 2011

227. According to Article 293 UCI-ADR, the period of ineligibility to be imposed for the ADRV in the form of the presence of a prohibited substance, taken alone, amounts to two years.

228. Exceptional circumstances which might justify an elimination or reduction of the sanction by virtue of Articles 295 and 296 UCI-ADR were not submitted and nor did they become known during the proceedings. Furthermore, neither did the Athlete provide substantial assistance in the sense of Article 298 UCI-ADR nor did he admit the ADRV in the sense of Article 303 UCI-ADR. There is no indication of aggravating circumstances in the sense of Article 305 UCI-ADR.

b) Sanction for a second ADRV

229. The Athlete committed a first ADRV in 2007 and, because of substantial assistance in the sense of Article 10.5.3 WADA Code and Article 298 UCI-ADR, a part of the period of ineligibility was suspended to the effect that he was sanctioned with one year of ineligibility.

230. The sanction to be imposed for a second ADRV follows from the table set out in Article 306 UCI-ADR. According to the definitions contained in that Article, the

suspension of a part of the sanction for the presence of a prohibited substance under Article 293 UCI-ADR does not alter the classification of that sanction as a standard sanction. By virtue of the definition attached to Art. 306 UCI-ADR, a standard sanction occurs when the first ADRV "*was or should be sanctioned by the standard sanction of two years*". For the Appellant's first ADRV in 2007 a 2 years sanction should normally have been imposed.

231. As required by Article 312 UCI-ADR, the ADRV committed in 2007 must be taken into account because it occurred within the period of 8 years prior to the second ADRV.

232. With standard sanctions for the first and second ADRV, Article 306 UCI-ADR provides for a period of ineligibility between 8 years and life-time. Article 307 UCI-ADR does not apply. The Appellant did not specify its prayer for relief in that respect and left it to the Panel to determine the appropriate length of the period of ineligibility. As the Panel does not find any relevant circumstances to impose a suspension longer than the minimum provided by Article 306 UCI-ADR, a period of ineligibility of 8 years shall be imposed upon the Athlete.

c) Commencement and length of the period of ineligibility

233. As a general rule, according to Article 314 UCI-ADR, the period of ineligibility starts on the date of the decision of the Panel. Article 315 UCI-ADR, however, allows the period of ineligibility to start at an earlier date, when there have been "*substantial delays in the hearing process (...) not attributable to*" the Respondent. Taking into account the unusually long duration of the proceedings due to the complexity of this matter, the Panel rules that the period of ineligibility shall commence three months before the pronouncing of this Award.

234. However, according to Articles 317 and 318 UCI-ADR, a period of provisional suspension imposed on or voluntarily accepted by the Athlete shall be credited against the period of ineligibility which may ultimately be imposed. The Respondent was suspended on 18 March 2011 and served a provisional suspension through 21 June 2012, the day when the DIS award became known to him. Therefore the period of 1 year, 3 month, and 4 days must be credited against the period of 8 years.

d) Disqualification of results

235. In application of Articles 288 and 289 UCI-ADR, all individual results the Respondent obtained in the competition Grand Prix de Lugano, and if he participated in any further competitions in the framework of that event also in these competitions, are automatically disqualified.

236. In addition, in application of Article 313 UCI-ADR, all competitive results the Respondent may have obtained from the date of the sample collection, i.e. 27 February 2011, through the commencement of the provisional suspension, *i.e.* 18 March 2011, are disqualified.

e) Fine

237. According to Article 326.1 a) UCI-ADR a mandatory fine is to be imposed on the Respondent which amounts to 70% of the gross amount of income he was entitled to for the whole year in which the ADRV occurred, i.e. in the present matter the year 2011. In application of Article 326 UCI-ADR, the expected annual gross salary for 2011 was assessed by the UCI in the amount of 55'000 € which was not challenged by the Respondent. Hence, the Panel orders the Respondent to pay a fine of 38'500 €.

XII. CONCLUSIONS

238. Having thoroughly considered the submissions and expert testimonies provided by the Parties and heard at the hearing, the Panel finds that the Appellant has established to the comfortable satisfaction of the Panel that the ratio of rec/pit hGH found on Mr. Patrick Sinkewitz's samples reveal the presence of recGH. Based on the foregoing considerations of the facts and the law, the Panel comes to the conclusion that, on 27 February 2011, Mr. Patrick Sinkewitz committed an anti-doping rule violation in the form of the presence of recGH, which is a prohibited substance in his bodily specimen as required by Article 21.1 UCI-ADR and sanctioned with an ineligibility period of two years in case of a first anti-doping rule violation. Hence, the award of the DIS Arbitral Tribunal dated 19 June 2012 must be set aside.

239. In fact, it is observed that Mr. Patrick Sinkewitz had committed a first anti-doping rule violation in the form of the presence of testosterone in his body in June 2007 and, as a consequence, a standard sanction had been imposed on him. Therefore, in application of Articles 312 and 306 UCI-ADR, Mr. Patrick Sinkewitz, as a result of a second anti-doping rule violation, must be declared ineligible to compete for eight years commencing three months prior to the date of the pronouncing of this Award. A period of 1 year, 3 months, and 4 days shall be credited against the period of eight years.

240. In addition, in application of Article 326 UCI-ADR, Mr. Patrick Sinkewitz is to be sanctioned with a fine of 38'500 €.

XIII. COSTS

241. Article R64.4 of the CAS Code provides:

> "*At the end of the proceedings, the CAS Court Office shall determine the final amount of the cost of arbitration, which shall include the CAS Court Office fee, the administrative costs of the CAS calculated in accordance with the CAS scale, the costs and fees of the arbitrators calculated in accordance with the CAS fee scale, a contribution towards the expenses of the CAS, and the costs of witnesses, experts and interpreters. The final account of the arbitration costs may either be included in the award or communicated separately to the parties.*"

242. Article R64.5 of the CAS Code provides:

> "*In the arbitral award, the Panel shall determine which party shall bear the arbitration costs or in which proportion the parties shall share them. As a general rule, the Panel has discretion to grant the prevailing party a contribution towards its legal fees and other expenses incurred in connection with the proceedings and, in particular, the costs of witnesses and interpreters. When granting such contribution, the Panel shall take into account the outcome of the proceedings, as well as the conduct and the financial resources of the parties.*"

243. This appeal was brought by NADA in partial execution of its public function as a monitoring and regulatory institution subscribing to the WADA Code. Bearing in mind the outcome of the arbitration, in particular the fact that the appeal has succeeded in full and that the Respondent unsuccessfully attempted to terminate this appeal, which is the basis for the Partial Award, the Panel holds that the costs of this appeal should be borne by the Respondent.

244. As a general rule, the CAS grants the prevailing party a contribution towards its legal fees and other expenses incurred in connection with the proceedings. The CAS may, however, depart from that principle under certain circumstances, which the Panel chooses to do in this case, in view of the particular legal status of the Appellant. As a consequence, the Panel takes the view that it is reasonable in the present case to order that each party shall bear its own legal costs.

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. The appeal of Nationale Anti-Doping Agentur Deutschland is partially upheld.

2. The Award of the DIS Arbitral Award dated 19 June 2012 is set aside.

3. Mr. Patrick Sinkewitz is guilty of an Anti-Doping Rule Violation in the form of the presence of recombinant hGH in his body specimen.

4. A period of 8 years of ineligibility for a second Anti-Doping Rule Violation is imposed on Mr. Patrick Sinkewitz.

5. The period of ineligibility starts three months prior to the date of the pronouncing of this Award. A period of 1 year, 3 months, and 4 days is credited against the period of 8 years.

6. A fine of 38'500 € shall be imposed on Mr. Patrick Sinkewitz.

7. All competitive results which Mr. Patrick Sinkewitz may have obtained in the competition "Grand Prix de Lugano" of 2011 and between 27 February 2011 and 18 March 2011 are disqualified.

8. The costs of the arbitration, to be separately determined and served to the parties by the CAS Court Office, shall be borne by Mr. Patrick Sinkewitz.

9. Each party shall bear its own costs and other expenses incurred in connection with this arbitration.

10. All other motions or prayers for relief are dismissed

Seat of arbitration: Lausanne, Switzerland
Date operative part: 21 February 2014
Date award with grounds: 24 February 2014

THE COURT OF ARBITRATION FOR SPORT

Christoph Vedder
President of the Panel

Dirk-Reiner Martens
Arbitrator

Martin Schimke
Arbitrator

Daniele Boccucci
Ad hoc Clerk