Arbitration CAS 2014/A/3488 World Anti-Doping Agency (WADA) v. Juha Lallukka, award of 20 November 2014

Panel: Prof. Luigi Fumagalli (Italy), President; Mr Quentin Byrne-Sutton (Switzerland); Mr Philippe Sands QC (United Kingdom)

Cross-country skiing
Doping (human growth hormone – hGH)
Admissibility of new documents
Role of a judging panel faced with a conflict of expert evidence
Lack of evidence regarding external factors apt to lead to a false positive
Inapplicability of the principle of non-retroactivity to evidence
Absence of aggravating factor leading to a higher sanction
Starting date for disqualification

1. **If new documents filed by a party were only made available to that party after the final deadline for the submission of its appeal brief, are at the core of essential questions raised in these proceedings and no objection was made by the other party to their production as new evidence, they must be admitted on record based on Article R56 of the Code, as the circumstances were exceptional and the documents were of relevance for the issue of the present decision.**

2. **It is not the function of a judging panel to step into the shoes of scientific experts, or to seek to repeat the exercises carried out by those experts. Any Tribunal faced with a conflict of expert evidence must approach the evidence with care and with an awareness as to its lack of scientific expertise in the area under examination. Bearing in mind the prescribed provisions as to burden and standard of proof, the role of a judging panel in applying the applicable standards as an appellate body is to determine whether the experts' evaluations are soundly based on the facts, and whether the experts consequent appreciation of the conclusion be derived from those facts is equally sound. In carrying out this task the judging panel is bound to form a view as to which of possibly competing expert views it considers to be more persuasive.**

3. **If an athlete has not submitted any evidence indicating that his/her ratios values could have been affected by individual circumstances (such as extensive exercise, stress, altitude, age, personal biological profile, etc.), nor has offered any explanation regarding the difference between his/her ratio values at two different dates, the athlete is not in a position to prove according to the standard of comfortable satisfaction that external factors may have had an impact on his/her ratio values, which could have led to a false positive.**

4. **Decision limits are not rules as such, in the sense of defining what an anti-doping violation is. They are described as "Guidelines", and they merely constitute figures upon which reliance may be placed by means of evidence to determine whether an anti-doping violation has or has not occurred in application of the rules. Accordingly, reliance on these guidelines may not be said to amount to a retroactive application of legal rule, as the rule against retroactivity does not apply to evidentiary matters.**

5. **The submission according to which the administration of exogenous hGH constitutes an aggravating factor has no foundation in the applicable anti-doping rules, which do not differentiate between various forms of first offence or suggest that doping with hGH attracts *ratione materiae* a higher sanction than the presence of another prohibited substance. It is the circumstances of the offence, not the offence itself which may aggravate.**

6. **Fairness requires that an athlete's results should not be disqualified, including his event medals, his points and prizes, if any, that were obtained in respect to a period during which he was allowed to compete.**

I. PARTIES

1. The World Anti-Doping Agency (hereinafter "WADA") is a Swiss private-law foundation. Its seat is in Lausanne, Switzerland, and its headquarters are in Montreal, Canada. WADA was created in 1999 to promote, coordinate and monitor the fight against doping in sport in all its forms.

2. Mr Juha Lallukka (hereinafter the "Athlete"), born on 27 October 1979, is of Finnish nationality. He is a cross-country skier of national level and is affiliated to the Finnish Ski Association, which is a member of the International Ski Federation (hereinafter "FIS").

II. FACTUAL BACKGROUND

II.1 Background facts

3. Set out below is a summary of the relevant facts and allegations based on the Parties' written submissions, pleadings and evidence adduced. Additional facts and allegations found in the Parties' written submissions, pleadings and evidence are addressed, where relevant, in connection with the legal discussion that follows. The Panel has carefully considered all the facts, allegations, legal arguments and evidence submitted by the Parties in the present proceedings, but will refer in this Award only to the submissions and evidence it considers necessary to explain or support its reasoning.

II.2 The isoform differential immunoassays for the detection of doping with human growth hormone in sport.

4. The appeal is brought against a decision of the Finish Sports Arbitration Board, which found that some of the parameters of the test for human growth hormone (hereinafter "hGH") abuse as validated by WADA (hereinafter "WADA's Growth Hormone Test") were unreliable. One of the specificities of this case derives from the fact that the appealed decision is broadly based on a recent award issued by the Court of Arbitration for Sport (CAS 2011/A/2566 *Andrus Veerpalu v. FIS* – hereinafter "Veerpalu Case" – rendered on 25 March 2013), which declared the said testing method for hGH to be reliable but nevertheless found that the risk of having false positive tests was too high. As a matter of fact, the CAS Panel in the Veerpalu Case held that the disciplinary body, which handled the matter in the lower instance, failed to meet the applicable standard of proof with respect to the procedure followed to set the decision limits.

5. Against this background, and in order to fully appreciate the facts of the case as well as the issues to be addressed, it appears appropriate to briefly describe WADA's Growth Hormone Test.

6. For the detection of doping with hGH in sport, WADA developed guidelines on *"hGH isoform differential immunoassays for anti-doping analyses"*. A first version was published in June 2010 (hereinafter the "2010 hGH Guidelines"). Its objective was stated to *"ensure a harmonized approach in the application of the Isoform Differential Immunoassays for the detection of doping with human Growth Hormone (hGH) in sport. The guidelines provide direction on the Sample pre-analytical preparation procedure, the performance of the test(s) and the interpretation of the test results"* (chapter 1, page 3 of the 2010 hGH Guidelines). Importantly, the 2010 hGH Guidelines also contain the WADA's Growth Hormone Test's decision limits.

7. In June 2014, WADA released version 2.1 of the above guidelines (hereinafter the "2014 hGH Guidelines"), which had the same objective as its first version. The 2014 hGH Guidelines reflect the latest revised decision limits, based on work carried out by two teams of statisticians.

8. As far as the testing method itself is concerned, the following description can be found in the *Veerpalu Case* (para. 83, page 18):

> *"HGH is a hormone that is synthesized and secreted by cells in the anterior pituitary gland located at the base of the brain. It is naturally produced in humans and necessary for skeletal growth. However, hGH is also available artificially and is believed to be abused by athletes on a wide scale in order to increase performance. The hGH isoform Test has been developed as part of an effort to combat hGH doping in sports. The major challenge in developing a doping test for hGH is the fact that the level of total concentration of hGH in a human's blood will naturally vary substantially in the course of time. HGH is naturally released in a rhythmic, pulsatile manner, so that the total hGH concentration level may vary as much as 500-times between the pulses and the basal periods. Normally there are around ten hGH pulses during any 24-hour period, so the total hGH concentration will differ significantly depending on the time of measurement. For this reason, developing a test based merely on the measurement of the total hGH concentration is, in practice, impossible. However, the administration of exogenous hGH changes the proportional shares of various hGH isoforms in a human's blood by increasing the proportional share of one hGH isoform compared to other isoforms. Accordingly, the Test has been designed to*

detect hGH administration by looking at the ratio between two types of isoforms of hGH. Even though the levels of total hGH concentration will vary substantially, it is assumed that the ratio between the relevant types of hGH isoforms measured by the Test will naturally remain relatively stable. The administration of exogenous hGH can thus be detected from an elevated ratio of the relevant hGH isoforms. The testing is done by using two distinct sets of reactive tubes coated with two different combinations of antibodies, which are referred to as Kit 1 and Kit 2 (or the "Kits"). The so-called decision limits determine the thresholds needed to assess whether an athlete's blood contains natural or doped levels of hGH".

9. In other words, to detect hGH doping in sport, the WADA accredited laboratories use the *"proportion of hGH isoforms found under normal physiological conditions and those found after recombinant (rec) hGH injection (…). The method is essentially based on the established principle that the normal composition of hGH in blood is a mixture of different isoforms, present at constant relative proportions. In contrast, recGH is only comprised of the 22-KDa molecular form. The administration of exogenous recGH not only leads to an increase in the concentration of the 22-KDa isoform but also causes a reduction of the non-22-kDa concentrations, thus altering the natural ratios established between these hGH isoforms"* (chapter 4, page 3 of the 2010 hGH Guidelines). We note that there is no material change to this approach in the 2014 Guidelines (Chapter 4, page 3 of the 2014 hGB Guidelines). The ratio of the concentrations of recombinant hGH (recGH) versus other "natural derived" isoforms of hGH (pitGH) are measured with two different kits developed specifically to detect the administration of exogenous hGH. The decision limits determine whether the recGH/pitGH ratios in kit 1 and kit 2 qualify as an adverse analytical finding. Any value above these limits will trigger the report by the laboratory of a positive test.

10. Under the 2010 hGH Guidelines and as regards to male athletes, the decision limit values for ratios derived from these kits were the following:

- kit 1: 1.81
- kit 2: 1.68.

11. The kits use different antibodies and, therefore, lead to different values and different decision limits.

II.3 The Athlete's adverse analytical findings

12. On 7 September 2011, the Athlete was subject to an out-of-competition doping control in Kouvola, Finland. His blood samples were dispatched in bottles with the code number 441131.

13. The WADA-accredited *"United Medix Laboratories Ltd"*. in Helsinki, Finland, (hereinafter the "Laboratory") was instructed to conduct the analysis of the Athlete's blood samples.

14. On 22 September 2011, the Laboratory analysed the Athlete's A-sample, which tested positive for extraneous hGH. More precisely, and according to the *"full documentation package on A-sample 441131"* dated 21 November 2011, based *"on the data of Recombinant growth hormone, immunology assay, human serum sample SOP DO-122, batch JD01 63 the analysis of the [Athlete's] serum A-sample 441131 using the CMZ hGH differential immunoassays produced the following analytical vales* (sic) *of assays*

ratios: 3.74 for kit '1' and 2.82 for kit '2'. The ratios are greater than the corresponding decision limits (DL) of 1.81 and 1.68, respectively. The combined standard of uncertainty (…) estimated by the laboratory at the DL is 0.19 for kit '1' and 0.16 for kit '2'. This constitutes an adverse analytical finding".

15. It is not disputed that exogenous hGH is a non-specified substance included in the category S2 (a) (*"Peptide Hormones, Growth Factors and Related Substances"*) on the 2011 WADA Prohibited List. The substance is prohibited both in- and out-of-competition.

16. On 25 October 2011, the adverse analytical findings were reported to WADA, the Finnish Anti-Doping Agency (hereinafter "FINADA") and to the FIS.

17. On 27 October 2011, the Athlete was provisionally suspended.

18. In a statement dated 7 November 2011, the Athlete denied having used exogenous hGH or any other medications prohibited in sports. He claimed that the test results could only be incorrect and requested the analysis of the B-sample, which was carried out on 14 November 2011. According to the *"full documentation package on B-sample 441131"* dated 30 November 2011, the *"confirmation tests using the CMZ hGH differential immunoassay kit '1' and kit '2' for the detection of growth hormone in serum gave positive confirmation results for both assay ratios in* ***B-sample 441131****. The determined assay ratios (3.44 for kit '1', 2.65 for kit '2') were greater than the corresponding decision limits of 1.81 and 1.68, respectively, and thus constituted an adverse analytical finding. (…). The result is in good agreement with the result of the* ***A-sample 441131****".*

II.4 The proceedings before the FINADA Supervisory Board

19. FINADA Supervisory Board initiated a disciplinary action against the Athlete and was in charge of adjudicating whether a violation of the applicable anti-doping rules occurred.

20. On 3 January 2012, the Athlete requested the FINADA Supervisory Board to suspend the proceedings against him until the publication by the Court of Arbitration for Sport (hereinafter the "CAS") of its decision in the *Veerpalu Case*. The Athlete's request was granted.

21. On 28 August 2012, the Athlete's assay ratio for hGH was measured again with the result being 1.86 for kit 1.

22. On 25 March 2013, the final award in the *Veerpalu Case* became public and the proceedings before the FINADA Supervisory Board resumed.

23. In a decision dated 19 June 2013, the FINADA Supervisory Board observed that the Athlete had always denied having used prohibited substances, but had not challenged the results of the Laboratory. Under these circumstances, the FINADA Supervisory Board found that the Athlete had the burden of establishing that a deviation from the relevant anti-doping standard occurred. It held that, by referring to the findings of the *Veerpalu Case*, the Athlete had successfully proven that the decision limits of WADA's Growth Hormone Test were unreliable due to insufficient scientific proof and that the deviation might have caused the adverse analytical finding. Consequently, the burden shifted back to FINADA to provide satisfactory evidence to

substantiate its claim on the insignificance of the unreliability of the decision limits. FINADA failed to convince its Supervisory Board, which found as follows (as translated from Finnish into English by WADA):

> *"WADA's current decision limits have indisputably been shown to be unreliable and currently there are no absolute decision limits. FINADA has admitted that the decision limits may decrease or increase with new studies, even though they will probably remain close to the current decision limits.*
>
> *The Supervisory Board states that since the decision limits are unreliable, they cannot be used for analysing the results of growth hormone tests. Merely comparing [the Athlete's] values to unreliable decision limits is therefore not sufficient for fulfilling FINADA's burden of proof. The Supervisory Board has not been able to ascertain that the correct decision limits will not be higher than [the Athlete's] values.*
>
> *FINADA's view has been that the decision limits will not change to higher than the values observed in [the Athlete's] sample. However, FINADA has not produced sufficient rationale to support this claim. Fulfilling the burden of proof would have required, instead of assessing the difference between [the Athlete's] values and the unreliable decision limits, sufficient scientific evidence of the current limits being correct or at least close enough to the correct ones, for example. Such evidence was not presented to the Supervisory Board.*
>
> *Because FINADA has not fulfilled its burden of proof of the deviation from antidoping rules showed by [the Athlete] has not caused the adverse analytical finding, [the Athlete] cannot be considered to have committed an antidoping rule violation".*

24. As a result, on 19 June 2013, the FINADA Supervisory Board decided the following:

> *"The Supervisory Board has ruled that the case is not an antidoping violation pursuant to Section 2 of Finland's Antidoping code.*
>
> *Item 7.6.4 of the Code is as follows:*
>
> > *"If ineligibility has been imposed on an athlete or another person on a basis that is not an adverse analytical finding in the A sample of the doping test, and the Supervisory Board decides on the basis of statements presented to it that the case is not an antidoping rule violation, the athlete's or another person's ineligibility ends immediately".*
>
> *[The Athlete] has been ineligible since 27 October 2011. Since this is not an antidoping rule violation, [the Athlete's] temporary ineligibility from sports will be ended immediately".*

II.5 The proceedings before the Finnish Sports Arbitration Board

25. On 18 July 2013, FINADA filed an appeal against the decision of its Supervisory Board with the Finnish Sports Arbitration Board.

26. During this appeal proceeding, the Finnish Sports Arbitration Board took note of the fact that, as a consequence of the *Veerpalu Case*, WADA commissioned additional scientific studies to determine reliable decision limits for its Growth Hormone Test. In this respect and in support of its appeal, FINADA produced before the Finnish Sports Arbitration Board, a report dated

11 August 2013, prepared for WADA by representatives of the Department of Epidemiology, Biostatistics and Occupational health and Department of Mathematics and Statistics of the McGill University, in Montreal, Canada (hereinafter the "McGill Study"). Nevertheless, FINADA confirmed to the Finnish Sports Arbitration Board that new decision limits were still to be decided on by WADA, but that they would not be higher than the values detected in the Athlete's A and B samples.

27. In a decision dated 5 December 2013 (hereinafter the "Appealed Decision"), the Finnish Sports Arbitration Board dismissed FINADA's appeal, namely on the following grounds:

> *"(…) relevant decision limits must be determined in a reliable and sufficiently accurate manner. The uncertainty related to decision limits, as described in the decision issued by CAS, can be eliminated in various ways. It is essential that the determination of decision limits be based on sufficient scientific proof. The new report presented by FINADA constitutes a part of a procedure that aims at the reliable determination of decision limits. The result of the new study on decision limits indicates that the decision limits previously set by WADA have been in the right direction. However, despite adjustments having been made to the material and methodological aspects, a single study does not necessarily constitute sufficient scientific proof for the determination of decision limits.*
>
> *The new study submitted by FINADA has sought to consider the shortcomings in the methodology used in the determination of decision limits that were stated in the decision issued by CAS. However, because the research results have not yet been published and scientifically examined, it is unclear, at least at this stage, how successfully the issues have been addressed and what type of uncertainty factors are possibly related to the new study and the results based on it. Taking into account the ambiguities detected by CAS related to earlier studies presented by WADA, such a possibility cannot be ruled out. The study that has now been presented is the first scientific statement on the decision limits for growth hormone after the decision issued by CAS pertaining to Veerpalu. It has not yet been subjected to proper scientific discussion. In addition, the study has not resulted in the confirmation of new or previous decision limits, at least not yet.*
>
> *The Finnish Sports Arbitration Board states that, taking into account the athlete's legal status and equal protection of the laws, the study submitted by FINADA cannot be seen as sufficient proof of the accuracy of the decision limits that were deemed to be unreliable by CAS".*
>
> *This being the case, the Finnish Sports Arbitration Board states that it has not been proven that [the Athlete] has conducted the alleged antidoping rule violation. For this reason, the appeal submitted by FINADA must be rejected".*

28. It is undisputed that on 21 January 2014, WADA received from the Athlete's legal representative *"a large number of Finnish-language documents relating to the Appealed Decision"*. At that moment and according to WADA, it had not yet received *"the case file relating to the Appealed Decision through the customary and official channels"*.

III. SUMMARY OF THE PROCEEDINGS BEFORE THE COURT OF ARBITRATION FOR SPORT

29. On 11 February 2014, WADA filed its statement of appeal with the CAS in accordance with Article R47 *et seq*. of the Code of Sports-related Arbitration (hereinafter the "Code) and requested an extension of the deadline to file its Appeal Brief in order to translate a *"voluminous*

amount of Finnish-language documents". The Appellant selected English as the language of the proceeding, and nominated Mr Quentin Byrne-Sutton, attorney-at-law in Geneva, Switzerland, as arbitrator.

30. On 14 February 2014, the CAS Court Office acknowledged receipt of the Appellant's statement of appeal and requested that the Athlete comment on WADA's request for an extension within three (3) days.

31. On 19 February 2014, the Athlete informed the CAS Court Office that he objected to WADA's application for the extension of the deadline to file its appeal brief, alleging that *"the actual reason for [WADA's] request is to wait for an Award in the Sinkewitz-case before filing the appeal"* and that *"the documents are already largely translated and WADA is well informed about the merits of the case"*. Separately, the Athlete nominated Mr. Philippe Sands, Q.C. as arbitrator.

32. On 25 February 2014, the CAS Court Office informed the Parties that the President of the Appeals Arbitration Division granted WADA's request and thereafter invited WADA to file its appeal brief on or before 22 April 2014.

33. On 20 March 2014, the President of the International Council of Arbitration for Sport issued an Order granting the Athlete legal aid sufficient to cover the travel and accommodation costs of the Athlete and his Counsel to a hearing, as well as the costs of any experts, witnesses, or interpreters in connection with a hearing, if necessary.

34. Six days later, on 26 March 2014, the Athlete filed a renewed request for legal aid seeking additional financial aid.

35. On 3 April 2014, the CAS Court Office informed the Parties that the Panel to hear the case had been constituted as follows: Prof. Luigi Fumagalli, President of the Panel, Mr Quentin Byrne-Sutton and Mr Philippe Sands Q.C., arbitrators.

36. On 22 April 2014, WADA filed its appeal brief in accordance with Article R51 of the Code, which contains a statement of the facts and legal arguments accompanied by supporting documents.

37. On 4 June 2014 and within the granted extended deadline, the Athlete filed his answer in accordance with R55 of the Code.

38. On 10 June 2014, the Parties were invited to inform the CAS Court Office on or before 17 June 2014 whether their preference was for a hearing to be held. The Parties were also reminded that such participation at a hearing, if necessary, could be done by video or telephone conference.

39. On 13 June 2014, the Athlete confirmed to the CAS Court Office that he preferred for the matter to be decided solely on the basis of the Parties' written submissions, whereas, on 17 June 2014, WADA deferred to the Panel on whether it was necessary to hold a hearing.

40. On 17 June 2014, WADA filed before the CAS the updated 2014 hGH Guidelines and confirmed that the authors of the McGill Study together with Prof. Jean-Christophe Thalabard of the University Descartes in Paris, France, produced a joint paper, which had, subsequent to the peer-review process, been accepted for publication on 2 June 2014. The supporting documentation was attached to WADA's letter.

41. On 26 June 2014 and on behalf of the Panel, the Athlete was invited to file his comments within seven (7) days on the documents submitted by WADA on 17 June 2014, which he failed to do, even after a reminder sent on 15 July 2014.

42. On that same day – the President of the International Council of Arbitration for Sport denied the Athlete's renewed request for additional legal aid.

43. On 31 July 2014, the Parties were advised that the Panel had decided not to hold a hearing in accordance with Article R57 of the Code.

44. On 9 September 2014, the Appellant signed and returned the Order of Procedure in this appeal; on 15 September 2014, the Athlete signed (subject to modifications) and returned the Order of Procedure as well.

IV. SUBMISSIONS OF THE PARTIES

(i) The Appeal

45. WADA submitted the following requests for relief:

> *"WADA hereby respectfully requests CAS to rule that:*
>
> 1. *The Appeal of WADA is admissible.*
> 2. *The decision rendered by the Finnish Sports Arbitration Board in the matter of Mr. Juha Lallukka on 5 December 2013 is set aside.*
> 3. *Mr. Juha Lallukka is sanctioned with a period of ineligibility of between two and four years starting on the date on which the CAS award enters into force. Any period of provisional ineligibility effectively served by the Athlete before the entry into force of such award, shall be credited against the total period of ineligibility to be served.*
> 4. *All competitive individual results obtained by the Athlete from 7 September 2011 through the commencement of the period of ineligibility imposed pursuant to the CAS award shall be annulled".*

46. WADA's submission, in essence, may be summarized as follows:

– As a consequence of the *Veerpalu* Case, WADA mandated two independent statistical studies, *i.e.* the McGill Study and a study from Prof. Jean-Christophe Thalabard of the University Descartes in Paris, France, *"to recalculate the decision limits for hGH based on a larger data set and with the objective of establishing decision limits with a 99.99% specificity i.e. the risk of false*

positives being less than 1 in 10,000". These two studies have been merged into a peer-reviewed joint publication paper (hereinafter "Joint Publication Paper"), accepted for publication. These studies establish a) that the decision limits as set by the 2014 hGH Guidelines are reliable, and b) that the Athlete's assay ratios measured in the A- and B-samples 441131 can only be explained by the use of exogenous hGH.

– The Joint Publication Paper addresses all the issues raised by the Panel in the *Veerpalu* Case and the Athlete can no longer derive any advantage from this CAS precedent.

– The Athlete's analytical values of assay ratios (3.74 for kit 1 and 3.44 for kit 2 - A-sample, and 2.82 for kit 1 and 2.65 for kit 2 - B-sample) are significantly higher than those of:

  - His own samples measured on 28 August 2012 with a ratio of 1.86 for kit 1. The Athlete did not advance any explanation for the substantial difference between the values recorded in September 2011 and those recorded less than a year later. Values of a given individual should not considerably change over time, and not by such a magnitude.

  - Mr Veerpalu (CAS 2011/A/2566), whose analytical values of assay ratios were 2.62 for kit 1 and 3.07 for kit 2 (A-sample) and 2.73 for kit 1 and 2.00 for kit 2 (B-sample).

  - Mr Sinkewitz, who was found guilty of an adverse analytical finding by a CAS Panel in CAS 2012/A/2857, delivered on 21/24 February 2014. Mr Sinkewitz's (hereinafter "Sinkewitz Case") with analytical values of assay ratios were 2.45 for kit 1 and 2.43 for kit 2 (A-sample) and 3.16 for kit 1 and 2.34 for kit 2 (B-sample). In the *Sinkewitz Case*, the Panel was *"convinced that the ratios found in [Mr Sinkewitz'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"*.

  - Athletes who either admittedly took exogenous hGH (Mr Terry Newton) or who admitted the violation or did not challenge the sanction.

– *"Even taking the lowest ratio values for Kit 1 and Kit 2 (3.44 and 2.65 respectively), the results are amongst the highest values which have been recorded in the thousands of hGH determinations which have been made on athletes' doping control samples (…). Indeed, the A sample value of 3.74 is the highest Kit 1 result which has ever been reported by a WADA-accredited laboratory"*.

– The Athlete's values recorded in September 2011 are so high that they constitute overwhelming evidence of administration of exogenous hGH, irrespective of whether the decision limits as set in WADA's Guidelines are reliable or not. This finding is consistent with the CAS Panel's position in the recent award in the *Sinkewitz* Case, which was rendered almost a year after the *Veerpalu* Case.

– The Athlete has violated both Article 2.1 (presence of a prohibited substance or its

markers or metabolites in an athlete's sample) and Article 2.2 (use or attempted use by an athlete of a prohibited substance or method) of the applicable Finnish Anti-Doping Code.

– *"As a number of aggravating circumstances set out at article 10.6 WADC are met, it is both legitimate and appropriate to impose an increased period of ineligibility of up to a maximum of four years".*

(ii) The Answer

47. The Athlete submitted the following requests for relief:

"Mr. Juha Lallukka hereby respectfully requests for relief:

I. Dismiss the requests for relief of WADA:

I.I. The Appeal of WADA shall be rejected as inadmissible.

I.II. The decision rendered by the Finnish Sports Arbitration Board on 5 December 2013 shall be affirmed.

II. If, against the Respondent's view, the Appeal of WADA is admissible and the decision of Finnish Sports Arbitration Board on 5 December 2013 is set aside, it shall be confirmed that the sanction of ineligibility period has already been served by Mr. Lallukka.

II.I. WADA shall be ordered to pay legal costs of Mr. Juha Lallukka total of ***28.912,11 Euros****.*

III. The Appellant shall be ordered to pay damages and legal costs of Mr. Juha Lallukka total of ***95.328,78*** *Euros (damages 66.416,67 Euros and legal costs 28.912,11 Euros)".*

48. The Athlete's submission, in essence, may be summarized as follows:

– WADA's appeal brief is inadmissible as it was filed late.

– At the time of his blood sample collection in September 2011, the decision limits of WADA's Growth Hormone Test were unreliable. The McGill Study as well as the Joint Publication Paper leave unanswered some issues raised by the CAS Panel of the *Veerpalu* Case. Hence, the decision limits are still not reliable and *"WADA's appeal must be dismissed as the requirement set by the Veerpalu are still not met"*. Unfortunately, the Athlete does not have the financial means to substantiate his allegations in this regard.

– The Athlete *"has always stated that he has not used hGH and there must be some other reason for his test being positive. He still doesn't know what that reason is. Furthermore he has no possibilities to find out what that reason might be. Though, [the Athlete] has never waived the claim that there is some physiological or scientific explanation for his high test values".*

– Applying the new decision limits and taking into account the scientific validation to a test conducted in 2011 would amount to an impermissible retroactive application of the law and would put the Athlete in an unequal position compared to Mr Veerpalu. If his

case had been dealt with in a diligent manner, he would have been acquitted.

– Given the existence of the *Veerpalu* decision, it was legitimate for the Athlete to rely on the findings of such an award. Such an attitude does not amount to an aggravating circumstance under the applicable anti-doping regulations. In addition, *"WADA claims that the athlete's conduct has been deceptive as he has refused to admit the use of a banned substance. WADA's view is in serious conflict with the privilege against self-incrimination"*.

– Should the Athlete be found guilty of an adverse analytical finding and in view of the time elapsed since the beginning of the present procedure, the Athlete must not *"be issued an ineligibility period in addition to the provision suspension",* which runs from 27 October 2011 to 19 June 2013. The particularly lengthy duration of the present procedure was mainly caused by WADA, which a) withheld information from the CAS Panel in the *Veerpalu* Case, b) filed its statement of appeal before the CAS well beyond the 21-day limit set in the applicable regulations, c) was granted an extra 60-day time extension to submit its appeal brief. The fact that the Athlete obtained the stay of the proceedings initiated against him until the release by the CAS of the *Veerpalu* award cannot be held against him as his suspension request proved to be well-founded. As a matter of fact, the CAS Panel of the *Veerpalu* Case identified the lack of quality of the data used for establishing the decision limits at issue.

– As this case is the consequence of WADA's reproachable conduct, WADA is responsible for compensating the financial damages suffered by the Athlete as well as his legal costs.

V. APPLICABLE LAW

49. Article R58 of the Code of Sports-related Arbitration (hereinafter "the Code") provides the following:

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

50. The Parties agree that Finland's Anti-doping Code (hereinafter the "Finnish ADR") shall govern the present dispute. In this regard, it is to be noted that the Appealed Decision was rendered on the basis of this regulation.

51. Further, and as provided by Article 1.3 of the Finnish ADR (as translated from Finnish into English), *"This code shall also apply to any natural person who, on the basis of membership, a competition licence or another licence or an agreement, represents such a sport organization or other association or is otherwise involved in its activities, or acts as an Athlete's Support Personnel as agreed with the Athlete. Furthermore, the*

code shall apply to Athletes participating in the activities organized by a sport organization or other sports association referred to above, even if he or she would not otherwise fall within the scope of application of the code".

52. The Athlete was subject to the out-of-competition doping control on 7 September 2011, and the adverse analytical finding was communicated to WADA, FINADA and FIS on 25 October 2011, hence after 1 January 2009, which is the date when the current Finnish ADR entered into force.

53. According to Article 18.3 of the Finnish ADR *"This code shall be governed by the laws of Finland".*

54. Pursuant to article 18.4 para. 3 of the Finnish ADR, *"This code has been adopted pursuant to the applicable provisions of the WADC and shall be interpreted in a manner that is consistent with applicable provisions of the WADC. The comments annotating various provisions of the WADC shall be referred to, where applicable, to assist in the understanding and interpretation of this code".*

55. For the above reasons, the Panel finds that the Finnish ADR and, to the extent necessary, Finnish Law shall apply.

VI. JURISDICTION

56. The jurisdiction of the CAS is not disputed by the Parties. It derives from Article R47 of the Code and from Article 13.2.2 of the Finnish ADR, which states the following:

> *"Appeals Involving National-Level Athletes. In cases involving an Athlete or event other than an International-Level Athlete or an International Event, the decision made by the Supervisory Group and another relevant sport organization under the code may be appealed to the Finnish Sports Arbitration Board as provided in its rules.*
>
> *Decisions of the Finnish Sports Arbitration Board may be appealed to CAS as provided in its rules".*

57. In the present case, it is not disputed that the Appealed Decision has been issued by the Finnish Sports Arbitration Board and that there is no internal remedy to put it into question. It follows that the CAS has jurisdiction to decide on the present dispute.

58. Under Article R57 of the Code, the Panel has full power to review the facts and the law.

VII. ADMISSIBILITY

59. Based on Articles 13.2.2 para. 2, 13.1.1 and 13.2.3 lit. (f) of the Finnish ADR, WADA has standing to file an appeal with the CAS against the Appealed Decision issued by the Finnish Sports Arbitration Board. WADA's right to appeal is not disputed.

60. Under Article 13.2.3 lit. (f) of the Finnish ADR,

> *"The filing deadline for an appeal or intervention filed by WADA shall be the later of the following*:

(a) Twenty-one (21) days after the period for appeal applicable to any other party entitled to appeal has expired, or

(b) Twenty-one (21) days after WADA's receipt of all the documents relating to the decision".

61. In this regard, the Athlete submits that WADA's appeal was lodged outside the 21-day deadline provided by the applicable regulations. He relies on the fact that the Appealed Decision was issued on 5 December 2013 and that WADA filed its statement of appeal with the CAS on 11 February 2014, i.e. more than 60 days later.

62. WADA does not dispute the fact that it was notified of the Appealed Decision. However, it claims that it was only on 21 January 2014 that it received a large volume of Finnish language documents, as sent to it by the Athlete's legal representative. At the time, WADA was still awaiting the receipt of the complete file relating to the decision. Nevertheless, in the Athlete's interest and in order to speed up the disciplinary process, WADA argues that it chose to bring the case before the CAS within 21 days as of 21 January 2014.

63. In the present case, the Athlete's position is based on the premise that the notification of the Appealed Decision initiates the 21-day time limit for WADA to file its appeal. This argument is not supported by the clear wording of Article 13.2.3 lit. (f) of the Finnish ADR, according to which WADA's deadline begins on receipt of *"all the documents relating to the decision"* (*"kaksikymmentäyksi (21) päivää siitä lukien, kun WADA on vastaanottanut kaikki päätökseen liittyvät asiakirjat"*). This is consistent with the corresponding provision of the WADA Code (Article 13.2.3), which states the following *"The filing deadline for an appeal or intervention filed by WADA shall be the later of: (…) (b) Twenty-one (21) days after WADA's receipt of the complete file relating to the decision"*. Accordingly, the argument is to be rejected.

64. The Athlete does not dispute the fact that WADA had not received the complete file relating to the Appealed Decision before 21 January 2014, i.e. the date when his own legal representative sent numerous Finnish language documents to WADA.

65. Under these circumstances, the appeal of WADA is admissible as it was submitted within the deadline provided by Article 13.2.3 lit. (f) of the Finnish ADR. It complies with all the other requirements set forth by Article R48 of the Code.

VIII. PROCEDURAL ISSUE – NEW DOCUMENTS FILED BY WADA

66. On 17 June 2014, WADA filed before the CAS the updated 2014 hGH Guidelines as well as the final version of the Joint Publication Paper. The first document was issued sometime in June 2014 and the second one was accepted for publication on 2 June 2014.

67. Article R56 para. 1 of the Code provides as follows:

> *"Unless the parties agree otherwise or the President of the Panel orders otherwise on the basis of exceptional circumstances, the parties shall not be authorized to supplement or amend their requests or their argument,*

to produce new exhibits, or to specify further evidence on which they intend to rely after the submission of the appeal brief and of the answer".

68. Pursuant to this provision, once the appeal brief has been filed, the President of the Panel may authorize the appellant to supplement it only on the basis of *"exceptional circumstances"*.

69. In the present matter, the new documents filed by WADA were only made available to WADA itself after 22 April 2014, *i.e.* after the final deadline for the submission of its appeal brief.

70. Further, both documents filed are at the core of essential questions raised in these proceedings, as they directly address the findings of the *Veerpalu* Case which form the Athlete's primary line of defence.

71. Additionally, it is noteworthy that the Athlete not only failed to submit any comments on those documents submitted by WADA - in spite of the fact that he was invited and reminded to do so - but also made no objection to their production as new evidence.

72. For the above reasons, the President of the Panel found that the circumstances were exceptional and that the documents presented on 17 June 2014 were of relevance for the issue of the present decision. As a consequence, based on Article R56 of the Code, the Panel considers that the new evidence filed by WADA must be admitted on record.

IX. MERITS

73. The main issues to be resolved by the Panel in deciding this dispute are the following:

A. Has an anti-doping rule violation been committed?

B. If an anti-doping rule violation has been committed, what is the sanction?

A. Has an anti-doping rule violation been committed?

a) In general

74. Pursuant to Article 3.1 para. 1 of the Finnish ADR, WADA has the burden of establishing that an anti-doping rule violation occurred. The standard of proof shall be whether the anti-doping rule violation has been established to the comfortable satisfaction of the panel, bearing in mind the seriousness of the allegation which is made.

75. According to the WADA Code, which provides a basis for the interpretation of the Finnish ADR (see Article 18 of the Finnish ADR), this standard of proof in all cases is greater than a mere balance of probability but less than proof beyond a reasonable doubt. According to the commentary to Article 3.1 of the WADA Code, *"This standard of proof required to be met by the Anti-Doping Organization is comparable to the standard which is applied in most countries to cases involving professional misconduct. It has also been widely applied by courts and hearing panels in doping cases".*

76. The Finnish ADR includes the following relevant provisions (as translated from Finnish into English by WADA):

> *"**2.1 Presence of a Prohibited Substance or its Metabolites or Markers in an Athlete's Sample***
>
> *2.1.1 It is each Athlete's personal duty to ensure that no Prohibited Substance enters his or her body. Athlete is responsible for any Prohibited Substance or its Metabolites or Markers found to be present in his or her samples. It is not necessary that intent, fault, negligence or knowing Use on the Athlete's part be demonstrated in order to establish an anti-doping rule violation under Article 2.1.*
>
> *2.1.2 Sufficient proof of an anti-doping rule violation is established by either of the following:*
>
> *(a) presence of a Prohibited Substance or its Metabolites or Markers in the Athlete's A Sample are found in the Athlete's body that indicate the use of a Prohibited Substance or a Prohibited Method and the Athlete waives analysis of the B Sample and thus the B Sample is not analyzed, or*
>
> *(b) the Athlete's B sample is analyzed and the analysis confirms the results of the Athlete's A Sample analysis.*
>
> *2.1.3 The presence of any quantity of a Prohibited Substance or its Metabolites or Markers in an Athlete's Sample, excepting those substances for which a quantitative threshold is specifically identified in the Prohibited List, shall constitute proof of an anti-doping rule violation. If a quantitative threshold has been determined for a Prohibited Substance or its Markers or Metabolites in the Prohibited List, a test result exceeding this threshold shall constitute proof of an anti-doping rule violation.*
>
> *2.1.4 As an exception to the general rule of Article 2.1., the Prohibited List or International Standards may establish special criteria for the evaluation of the use of Prohibited Substances that can also be produced endogenously.*
>
> ***2.2 Use or Attempted Use of a Prohibited Substance or Method***
>
> *2.2.1 It is each Athlete's Personal duty to ensure that no Prohibited Substance enters his or her body. Athletes are responsible for any Prohibited Substance or its Metabolites or Markers found to be present in their samples, or any abnormalities in their body indicating the use of Prohibited Substances or Methods. It is not necessary that intent, fault, negligence or knowing Use on the Athlete's part be demonstrated in order to establish an anti-doping rule violation under Article 2.2.*
>
> *2.2.2 Use or Attempted Use of a Prohibited Substance or a Prohibited Method shall constitute an anti-doping rule violation, irrespective of the success or failure of the Use or Attempted Use.*
>
> *(…)*
>
> ***3.2 Methods of Establishing Facts and Presumptions***
>
> *Facts related to an alleged anti-doping rule violation may be established by any reliable means, including admissions.*
>
> *The following rules shall apply with respect to the presentation of evidence:*

3.2.1 WADA-accredited laboratories are presumed to have conducted Sample analysis and custodial procedures in accordance with the International Standard for Laboratories. The Athlete or other Person may rebut this presumption by establishing that a departure from the International Standard for Laboratories occurred which could reasonably have caused the Adverse Analytical Finding.

If the Athlete or other Person rebuts the preceding presumption by showing that a departure from the International Standard for Laboratories occurred which could reasonably have caused the Adverse Analytical Finding, then FINADA shall have the burden to establish that such departure did not cause the Adverse Analytical Finding.

(…)".

b) In the present case

77. It is undisputed that the *"United Medix Laboratories Ltd"*. in Helsinki, Finland, is a WADA-accredited laboratory.

78. As regards the Athlete's A-sample, the analysis using the WADA's Growth Hormone Test produced the following analytical values of assay ratios: 3.74 for kit 1 and 2.82 for kit 2. At the material time, the decision limits were 1.81 for kit 1 and 1.68 for kit 2.

79. As regards the Athlete's B-sample, the Laboratory reported the analytical values of assay ratios of 3.44 for kit 1 and 2.65 for kit 2.

80. In this respect, it is worthwhile to observe that the Athlete does not try to allege the possible occurrence of a breach in the chain of custody. He also did not challenge the fact that the values of assay ratios actually found on his samples were correctly established. However, he claims that the decision limits as determined by WADA are so unreliable that his samples cannot safely be declared as positives. Furthermore, he does not exclude the possibility that *"there is some physiological or scientific explanation for his high test values"*.

81. The Athlete's case is in large part based on the findings of the *Veerpalu* Case. Since this ruling, however, there have been significant developments. In a more recent award, rendered in the *Sinkewitz* Case, the CAS ruled that Mr Patrick Sinkewitz's analytical values of assay ratios were so high that there was no borderline situation which might trigger the benefit of uncertainty in favour of the athlete. The *Sinkewitz* Case is of relevance as his ratios values were lower than the Athlete's in the present case. Further, WADA has commissioned new studies, the purpose of which was namely to address the issues raised by the Panel in the *Veerpalu* Case. Finally, the 2010 hGH Guidelines were updated to reflect the latest revised decision limits applicable to the WADA's Growth Hormone Test, following the results of the peer-reviewed Joint Publication Paper.

82. In view of the foregoing, the following issues will be addressed:

a) How does the Joint Publication Paper address the main points of contention raised in the *Veerpalu* Case?

b) The implications of the *Sinkewitz* Case

c) Has the principle of non-retroactivity been violated in the Athlete's case?

d) Did the disciplinary proceeding initiated against the Athlete suffer from flaws, rendering it unfair?

e) Conclusion

a) How does the Joint Publication Paper address the main points of contention raised in the *Veerpalu* Case?

83. In the *Veerpalu* Case, the Panel recalled that the burden is on the anti-doping agency *"to show that an anti-doping violation has occurred by means of a test that is scientifically reliable. Such a burden applies to all aspects of the Test, including the determination of the decision limits"* (para. 202). Although it confirmed that WADA's Growth Hormone Test was *"a reliable testing method for hGH abuse in professional sports that is based on scientifically correct assumptions and methods"* (para. 183), the Panel in the *Veerpalu Case* nevertheless held that the decision limits applied to the test were not reliable because (1) their determination was based on an insufficient sample of people, (2) some samples were rejected when determining the decision limits without providing a more detailed explanation for the rejection, and (3) there was some uncertainty relating to the distribution models used to calculate the decision limits.

a.1) The insufficient sample size

84. The decision limits in dispute (kit 1 = 1.81 and kit 2 = 1.68) were determined on the basis of a study conducted in 2009 (hereinafter the "Initial Study"). The decision limits were set by measuring the ratio between exogenous (recGH) and endogenous (pitGH) growth hormone levels in 300 athletes. The samples came from 140 Caucasian males, 58 Caucasian females, 57 African males and 45 African females.

85. Studies to confirm the decision limits were carried out in 2009-2010 (hereinafter the "2009-2010 Verification Study") and again in 2010-2011 (hereinafter the "2010-2011 Verification Study"). The decision limits were not adjusted following these studies.

86. For the 2009-2010 Verification Study, the data used came from samples analyzed from January 2009 to March 2010 in nine WADA-accredited laboratories. The samples consisted of 711 male samples (both Caucasian and African) for kit 1 and 38 for kit 2.

87. For the 2010-2011 Verification Study, the data used came from twenty-one WADA-accredited laboratories and consisted of 1994 samples for kit 1 (1297 for males and 697 for females) and 514 relevant samples for kit 2 (352 for males and 162 for females).

88. The Panel in the *Veerpalu* Case held as follows (at para. 205):

> *"With regard to the Initial Study, the Panel is concerned that the sample sizes for both Kits were too low. (…). The Panel has not been convinced that estimates of the 99.99% from such small datasets would be sufficiently accurate.*
>
> *Similarly, the Panel is not convinced that a sufficiently large dataset has been used to corroborate the decision limits for Kit 2. In the First Verification Study, only 38 new samples fulfilling the raised concentration requirements (recGH >0.1 ng/mL, pitGH > 0.05 ng/mL) were analyzed with Kit 2. Although WADA decided to combine the two ethnic groups in this stage, and the samples from the First Verification Study were combined with the samples from the Initial Study, the total number of male samples fulfilling the increased concentration requirements analyzed with Kit 2 was still as low as 142. (…).*
>
> *In the second Verification Study, the decision limits for Kit 1 were corroborated using data from 1297 samples, whereas 352 relevant samples could be used to corroborate Kit 2. (…). Under the circumstances of the case at hand, the Panel is not comfortably satisfied that the 352 samples analyzed in the Second Verification Study with Kit 2 would confirm the reliability of the decision limits originally established based on insufficient amount of samples. (…).*
>
> *In conclusion, the Panel has not been convinced by the Respondent that the decision limit especially for Kit 2 has been based on a sufficiently large sample size to provide a reliable estimation for the 99.99% point. Therefore, the Panel accepts the Appellant's arguments that the decision limits at least for Kit 2, possibly also for Kit 1, are unreliable".*

89. The authors of the Joint Publication Paper were subsequently asked by WADA *"to analyze a much larger set of ratios collected in routine hGH testing of athletes and to document in the peer-reviewed literature a statistical procedure for establishing [decision limits]"*. In this context, they examined the variation in the *"rec/pit ratios obtained for 21,943 screened blood (serum) samples submitted to the WADA accredited laboratories over the period 2009-2013"* (page 2 and table 1):

- 4,546 female samples and 10,155 male samples for kit 1
- 2,150 female samples and 5,092 male samples for kit 2

90. It appears that the Joint Publication Paper is based on the evaluation of 21,943 screened blood samples, i.e. a considerably larger sample than that used for the Initial Study as well as the 2009-2010/2010-2011 Verification Studies, altogether. The Panel in the *Veerpalu* Case appeared to be particularly doubtful as to the reliability of the decision limits set for kit 2, confirmed on the basis of 352 samples. By taking into consideration over 5,000 samples for the same kit, the Joint Publication Paper has addressed the doubts expressed by the said Panel. In the view of the Panel it has done so in a manner that appears to be convincing.

a.2) The inappropriate exclusion of certain sample data from the dataset

91. The Panel in the *Veerpalu* Case held the following (at para. 204):

> *"The Panel cannot determine with a sufficient degree of certainty which samples have been excluded in the Initial Study and the Verification Studies and for which reasons. This renders it impossible for the Panel to reverse engineer the Test's decision limits. In particular, on this basis, the Panel cannot conclude that all of the results excluded from the datasets were legitimately excluded because the Respondent has provided insufficient information in this regard. For instance, the Panel is not in a position, based on the Respondent's submissions, to determine which samples have been excluded for constituting 'suspicious data' and whether correctly so. For the purposes of any further studies for determining decision limits for prohibited substances that can be produced endogenously, the Panel recommends that any exclusion of samples from the reference population data be separately documented with reasoning".*

92. By contrast, the authors of the Joint Publication Paper described precisely which dataset they used and what samples were included or excluded. In particular, they took into account atypical findings, which were *"highly suspicious values obtained either before the [decision limits] had been officially approved and implemented by WADA (…) or samples for which the values of rec/pit were higher than the [decision limits] just for one kit, but not for the other kit. We also included those Adverse Analytical Finding (3 males) that have been appealed by the athletes before arbitration courts, irrespective of how extreme these values may look with the rest of the data (…). We excluded (…) data from 9 doped athletes, i.e. those values corresponding to reported Adverse Analytical Findings for hGH from athletes who have either admitted to using recombinant hGH or have accepted the anti-doping sanctions without challenging the analytical result and thus have been sanctioned".*

93. Here too, the Panel in the present dispute finds that the Joint Publication Paper addresses the concerns raised in the *Veerpalu* Case, and does so in a manner that appears to be reliable and convincing.

a.3) The uncertainty relating to the distribution models used

94. In the *Veerpalu* Case the Panel emphasised that the anti-doping agency *"has provided varying and initially incorrect accounts of which distribution models (and why) were used to calculate the decision limits"* (para. 206). It observed that during the procedure, the anti-doping agency made contradictory statements as regards to the decision limit determination protocols and calculations, so that it failed to explain to the comfortable satisfaction of the Panel that the decision limits had been set in a scientifically correct way. That Panel's concerns were heightened because the methods, protocols and calculations related to the determination of the decision limits had not been peer-reviewed.

95. In the present case, the Joint Publication Paper appears to be based on new and comprehensive data, and provides a detailed account of the characteristics and properties of the materials and methods used (pages 6 to 11). Following a peer-review process, it has been accepted for publication.

96. Accordingly, the Panel in the present matter is of the opinion that the Joint Publication Paper responded adequately to the concerns expressed in the *Veerpalu* Case.

a.4) Conclusion

97. The Panel in the present case recognises that it is not its function to step into the shoes of scientific experts, or to seek to repeat the exercises carried out by those experts. It also recognises that any Tribunal faced with a conflict of expert evidence must approach the evidence with care and with an awareness as to its lack of scientific expertise in the area under examination. Bearing in mind the prescribed provisions as to burden and standard of proof, the Panel considers that its role in applying the applicable standards as an appellate body is to determine whether the experts' evaluations (upon which WADA's case rests) are soundly based on the facts, and whether the experts consequent appreciation of the conclusion be derived from those facts is equally sound (see also CAS 2010/A/2235, para. 79). In carrying out this task the Panel is bound to form a view as to which of possibly competing expert views it considers to be more persuasive.

98. In the present case, the Panel recognises a number of pertinent factors. First, the Joint Publication Paper on which WADA relies is the fruit of a collaborative effort by two independent teams of experts, drawn from McGill University in Montreal, Canada, and from the University Descartes in Paris, France. Second, this study is based on a considerable and large dataset, which has been peer-reviewed and accepted for publication. Third, the study is said to establish decision limits with a 99.99% specificity. Having regard to these factors, it is not immediately apparent to the Panel how it could conclude that the Joint Publication Paper may be said to be unreliable. In other words, the Panel is comfortably satisfied that WADA has met its burden of proof as regards the reliability both of its Growth Hormone Test and of the decision limits contained in the 2014 hGH Guidelines. In view of this finding, the burden is on the Athlete to establish any particular departure or departures that could have led to a false-positive finding (see Article 3.2.1 of the Finnish ADR).

99. In his answer in these proceedings, the Athlete only referred to certain comments made in the McGill Study and offered submissions by way of speculation that they represent a kind of admission by the authors of a lack of reliability of the WADA's Growth Hormone Test. However, the Athlete has not offered any substantiation of his allegations or evidence to support them. Nor has he sought to explain how or whether the comments in question were dealt with in the Joint Paper Publication. In particular, he failed to establish by a balance of probabilities how the points raised in the McGill Study could reasonably have caused a false positive.

100. In addition, the Panel notes that in spite of the fact that the Joint Publication Paper is based on the evaluation of 21,943 screened blood samples, i.e. considerably more than the Initial and Verification Studies, the revised decision limits (contained in the 2014 hGH Guidelines) are quite close to the decision limits contained in the 2010 hGH Guidelines:

2010 hGH Guidelines: kit 1 = 1.81 (males) and kit 2 = 1.68 (males)

2014 hGH Guidelines: kit 1 = 1.81 (males) and kit 2 = 1.87 (males)

101. In other words, irrespective of the increase in number of samples considered, the decision limits did not vary in a magnitude that brings them anywhere near the ratio values found on the Athlete, i.e.:

A-sample: 3.74 for kit 1 and 2.82 for kit 2

B-sample: 3.44 for kit 1 and 2.65 for kit 2

102. The above finding is relevant in light of the Sinkewitz Case.

b) The Sinkewitz Case

103. Mr Patrick Sinkewitz is a professional cyclist of German nationality, born on 10 October 1980. On 27 February 2011, he was subject to an in-competition doping control and the analytical findings were reported positive for exogenous hGH. The analysis using the WADA's Growth Hormone Test in fact had produced the following analytical values of assay ratios:

A-sample: 2.45 for kit 1 and 2.43 for kit 2

B-sample: 3.16 for kit 1 and 2.34 for kit 2

104. The Panel in the *Sinkewitz* Case was aware of the *Veerpalu* Case, but held that the two situations were different. In particular, it noted that *"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 [decision limits] of 1.81 (…). Compared to Veerpalu (2.73 in kit 1 and 2.00 in kit 2 of the B-sample), the ratios found on [Mr Sinkewitz's] B-samples are far higher than the [decision limits] published in the hGH Guidelines (…). Hence, the ratios in the case of [Mr Sinkewitz] are not a borderline situation which might trigger the benefit of uncertainty for the Athlete as the panel did in Veerpalu"* (para. 204).

105. As indicated above, in the present case, the ratio values found in the analysis of the Athlete's samples are higher than those of Mr Sinkewitz, and significantly so.

106. Consequently, the Panel considers that the following findings in the *Sinkewitz* Case are pertinent and might be said to be applicable *mutatis mutandis* to the present dispute:

> The *"hGH Guidelines, including the [decision limits] contained in it, are not mandatory but rather a mere recommendation addressed to the WADA accredited laboratories. The [decision limits] are not legally binding as such and, therefore, do not legally constitute what an [anti-doping rule violation] is. The values of the [decision limits] do not have the legal force to distinguish between doping (above the [decision limits]) and non-doping (below the [decision limits]). They do not mean that ratios below the [decision limits] are allowed. They are exclusively meant to instruct the laboratories which findings of rec/pit ratios should be reported as [adverse analytical finding]".* (para. 192).

107. Considering that the reliability of the WADA's Growth Hormone Test was not challenged, the Panel in the *Sinkewitz* Case proceeded to examine the athlete's ratio values and then made the following observation (para. 214 to 216):

"At the hearing, the Panel expressly asked the experts to explain their opinion on whether the ratios found in [Mr Sinkewitz's] sample, even leaving aside the current [decision limits], 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 [Mr Sinkewitz] 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.

The Panel notes that the experts summoned by the [National Anti-Doping Agentur] testified on the basis of their vast experience in doping analysis and hGH in human medicine, while the experts called by [Mr Sinkewitz] referred to their general evaluation of the data available for the determination of the [decision limits], 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 [Mr Sinkewitz'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.

(…) The Panel finds no reason to believe that the expert witnesses summoned by the [National Anti-Doping Agentur] were biased in the [latter'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".

108. In his answer in the present case, the Athlete has declared that he *"has always stated that he has not used hGH and there must be some other reason for his test being positive. He still doesn't know what that reason is. Furthermore he has no possibilities to find out what that reason might be. Though, [the Athlete] has never waived the claim that there is some physiological or scientific explanation for his high test values".*

109. The Panel observes that the Athlete has not submitted any evidence indicating that his ratios of rec/pit hGH could have been affected by individual circumstances (such as extensive exercise, stress, altitude, age, personal biological profile, etc.). Neither has he offered any explanation regarding the difference between his ratio values of September 2011 and those of August 2012. As a result, the Athlete is not in a position to prove to the comfortable satisfaction of the Panel that external factors may have had an impact on his ratio values, which could have led to a false positive. He has not so proven to the comfortable satisfaction of the Panel.

c) Has the principle of non-retroactivity been violated in the Athlete's case?

110. The Athlete is of the opinion that applying the new decision limits and their recent scientific validation to a test conducted in 2011 would amount to an impermissible retroactive application of the law.

111. The applicable substantive rules are identified by reference to the principle *"tempus regit actum"*: in order to determine whether an act constitutes an anti-doping rule infringement, the Panel applies the law in force at the time the act was committed. In other words, new regulations, unless they are more favourable for the athlete (the *lex mitior* principle referenced in advisory opinion CAS 94/128, rendered on 5 January 1995, in Digest I, 491), do not apply retroactively to facts that occurred prior to their entry into force, but only for the future (CAS 2000/A/274, award of 19 October 2000, in Digest II, 405).

112. The Panel recalls that the revised decision limits (contained in the 2014 hGH Guidelines) are quite close to the decision limits contained in the 2010 hGH Guidelines (see above at paragraph [101]. It further recalls that the ratio values found in the analysis of the Athlete's samples are higher than those set out in the 2010 guidelines and the 2014 guidelines.

113. The question therefore arises whether reliance in any way on the 2014 guidelines may be said to amount to a retroactive application of legal rule. In this regard the Panel notes that decision limits are not rules as such, in the sense of defining what an anti-doping violation is. They are described as "Guidelines", and they merely constitute figures upon which reliance may be placed by means of evidence to determine whether an anti-doping violation has or has not occurred in application of the rules.

114. Accordingly, the Panel considers that the Joint Publication Paper and the 2014 hGH Guidelines are not to be treated as rules, as such, but as evidence adduced by WADA in support of its appeal, to the effect that the ratio values found in the analysis of the Athlete's samples were such as justify the conclusion that had violated the applicable rule against doping. The Joint Publication Paper and the 2014 hGH Guidelines have been admitted as evidence during these proceedings and examined and relied upon as such by the Panel. Their effect has been to confirm that the ratio values found in the analysis of the Athlete's samples are at a level that violate the applicable rules, irrespective of whether one places reliance on level set by the 2010 Guidelines or the higher level that later emerged.

115. In this regard, the Panel notes that the rule against retroactivity does not apply to evidentiary matters (CAS 2000/A/274, 405).

116. Based on the foregoing, the Panel finds that the principle of non-retroactivity is not at stake in this case.

d) Did the disciplinary proceeding initiated against the Athlete suffer from flaws, rendering it unfair?

117. According to the Athlete, WADA did not carry out the disciplinary proceeding diligently. He submits that the outcome would have been more favourable to him had his case been dealt with properly.

118. In the present case, the chronology of events is the following:

- 07.09.2011: out-of-competition doping control
- 22.09.2011: tests were carried out
- 25.10.2011: the adverse analytical findings were communicated
- 07.11.2011: the Athlete requested the analysis of the B-sample
- 14.11.2011: the B-sample analysis was carried out
- 25.03.2013: the award in the *Veerpalu* case became public
- 19.06.2013: the FINADA Supervisory Board acquitted the Athlete
- 18.07.2013: FINADA challenged the decision of its Supervisory Board
- 11.08.2013: the McGill Study is made available
- 05.12.2013: the Finnish Sports Arbitration Board dismissed FINADA's appeal
- 11.02.2014: WADA filed its statement of appeal with the CAS.

119. The Panel recalls that WADA filed its appeal in a timely manner and was granted a time extension to translate a large amount of documents from Finnish into English, which is one of the two CAS working languages, the other one being French (see Article R29 of the Code). Following the *Veerpalu* Case, WADA immediately commissioned new studies, which resulted in the peer-reviewed Joint Publication Paper, accepted for publication and at the basis of the 2014 hGH Guidelines, published in June 2014.

120. Considering the above sequence of events and taking into account the fact that WADA was not a party to the proceedings until it filed its appeal before the CAS, the Panel finds that WADA dealt with the Athlete's situation without undue delay and conducted itself in a fashion which is beyond reproach and scrupulously, in accordance with the interests of all the parties.

121. It is the case that the out-of-competition doping control took place in September 2011, and that some time has passed since then. Nevertheless, the Panel finds that the time spent cannot be attributed to WADA given that a significant contributing cause was the Athlete's application for the suspension of his disciplinary proceeding until the *Veerpalu Case* became public, on 25 March 2013, i.e. over a year later. The Athlete contends that the procedure in the *Veerpalu* Case dragged on because of WADA's lack of cooperation as regards *"the way in which the decision limits were calculated"*. The Athlete's allegation do not appear to be well-founded, as WADA was not a party to the *Veerpalu* Case and cannot on its face be held exclusively responsible for the duration of the procedure. Moreover, the Athlete has not substantiated that WADA had any involvement in the *Veerpalu* proceedings or took any actions which had a material impact on its duration.

122. Consequently, the Athlete's claim for financial compensation based on the allegedly reproachable conduct of WADA must also be rejected. The Panel has no evidence of any such conduct before it.

e) Conclusion

123. Based on the foregoing, the Panel is comfortably satisfied that the analytical values of assay ratios relating to the Athlete's samples reveal the presence of recombinant hGH. The Athlete has not advanced and established any valid reason for the Panel to find differently.

124. Furthermore, it is undisputed that exogenous hGH is a non-specified substance included in the category S2(a) ("Peptide Hormones, Growth Factors and Related Substances") on the 2011 WADA Prohibited List, which is applicable (see Article 4.1. of the Finnish ADR). Exogenous hGH is prohibited both in- and outside of competition.

125. Consequently and in conclusion, the Panel considers that an anti-doping rule violation occurred.

B. If an anti-doping rule violation occurred, what is the sanction?

a) In General

126. The Finnish ADR includes the following relevant provisions:

> ***10.2 Ineligibility for Use of Prohibited Substances and Prohibited Methods***
>
> *The period of Ineligibility imposed on an Athlete or other Person for the first violation referred to in Article 2.1 (Presence of a Prohibited Substance or its Metabolites or Markers in Athlete's Sample), Article 2.2 (Use or Attempted Use of a Prohibited Substance or Method,) and Article 2.6 (Possession of Prohibited Substances or Methods) shall be two (2) years of Ineligibility, unless the conditions for eliminating the Ineligibily or imposing it for shorter period than two years, as provided in Article 10.4 or 10.5, or the conditions for imposing the Ineligibility for longer period than two years, as provided in Article 10.6, are met.*
>
> *(…)*
>
> ***10.4 Consequences Imposed for the Use of Specified Substances under Specific Circumstances***
>
> (…)
>
> ***10.5 Elimination or Reduction of Period of Ineligibility Based on Exceptional Circumstances***
>
> *10.5.1 No Fault or Negligence. If an Athlete establishes after an individual anti-doping rule violation, that he or she bears no fault or negligence, the period of Ineligibility shall not be imposed or a period of Ineligibility already imposed shall be eliminated.*
>
> *When a Prohibited Substance or any of its Markers or Metabolites is detected in an Athlete's Sample referred to in Article 2.1, the Athlete must establish, in addition to the previous paragraph above, how the Prohibited Substance has entered his or her system.*
>
> *If the period of Ineligibility was not imposed or it was eliminated based on the criteria specified above in this paragraph, the anti-doping rule violation shall not be taken into consideration when the provisions of Article 10.7 are applied.*

10.5.2 No Significant Fault or Negligence. If an Athlete or other Person establishes after an individual anti-doping rule violation, that he or she bears no significant fault or negligence, and if a Prohibited Substance or any of its Metabolites or Markers is detected in the Athlete's sample as referred to in Article 2.1 and he or she also establishes how the Prohibited Substance has entered his or her system, the otherwise applicable period of Ineligibility may be reduced; However, the reduced period of Ineligibility may not be less than one-half of the period of Ineligibility otherwise applicable.

If the period of Ineligibility imposed without reduction referred to above is a lifetime, the reduced period of Ineligibility may be no less than eight (8) years.

10.5.3 Substantial Assistance in Discovering or Establishing Anti-Doping Rule Violations. (…)

10.5.4 Admission of an Anti-Doping Rule Violation in the Absence of Other Evidence. (…)

10.5.5 Order of Application of Ineligibility Provisions in Cases Where an Athlete or Other Person Establishes Entitlement to Reduction in Sanction Under More than One Provision of Article 10. (…)

10.6 Circumstances Which Increase the Period of Ineligibility

If FINADA establishes in an individual case involving an anti-doping rule violation that aggravating circumstances are present which justify the extending of the standard period of Ineligibility, the period of Ineligibility otherwise applicable may be increased up to a maximum of four (4) years, unless the Athlete or other Person can prove to the comfortable satisfaction of the Supervisory Group that the Athlete or other Person did not knowingly commit the Antidoping rule violation

An Athlete or other Person can avoid the application of this Article by admitting his or her anti-doping rule violation promptly after receiving a request for statement on the anti-doping rule violation from the Supervisory Group.

This Article (10.6) shall not be applied when determining the consequences for anti-doping rule violations under Article 2.7 (Trafficking or Attempted Trafficking in any Prohibited Substance or Method) and 2.8 (Administration or Attempted administration to any Athlete In-Competition of any Prohibited Method or Prohibited Substance, or administration to any Athlete Out-of-Competition of any Prohibited Method or any Prohibited Substance also prohibited Out-of-Competition, or assisting, encouraging, aiding, abetting, covering up or any other type of complicity involving an anti-doping rule violation or any attempted anti-doping rule violation) above.

(…)

10.8 Disqualification of Results in Competitions Subsequent to an Adverse Analytical Finding or Other Anti-Doping Rule Violation

In addition to the disqualification of the individual results in competitions under Article 9, all other results in competitions obtained from the date of an Adverse Analytical Finding or other anti-doping rule violation through the commencement of the Provisional Suspension shall be disqualified and any points, medals or prizes declared forfeited unless fairness requires otherwise.

10.9 Commencement of Ineligibility Period

10.9.1 Unless otherwise provided below, the period of Ineligibility shall start on the date of the decision providing for Ineligibility or, if the review of the anti-doping rule violation was waived by the

Athlete or other Person as referred to in Article 8.3, on the date the period of Ineligibility is confirmed or otherwise imposed.

10.9.2 Delays in the Hearing Process of an Anti-Doping Rule Violation Not Attributable to the Athlete or other Person. Where there have been substantial delays in the hearing of a case involving an anti-doping rule violation or, in other aspects of doping control in the individual case under review, and the delays were not attributable to the Athlete or other Person, the Supervisory Group may declare that the period of Ineligibility shall be considered to have started either on the date of the Sample collection or the date on which another anti-doping rule violation last occurred.

(…)

10.9.4 If the Athlete has respected the Provisional Suspension imposed on him or her, such period of Provisional Suspension shall be reduced from the period of Ineligibility imposed on him or her".

b) In the case at hand

127. It is not disputed that this is the first time that the Athlete has been found to have violated an anti-doping rule.

128. The Athlete submits that, should he be found guilty of a doping offence, he does not deserve any further sanction as he suffered significant loss of reputation and contract opportunities due to the provisional suspension already served. He also invites the Panel to take account of the lengthy procedure, which he claims to have been caused essentially by WADA's actions and negligence (a claim the Panel has not accepted).

129. WADA claims that the administration of exogenous hGH constitutes an aggravating factor as hGH *"is a prescription drug, not readily available over-the-counter"*, which involves significant planning and preparation. WADA further claims as an aggravating circumstance the fact that the Athlete chose to contest the alleged violation despite the overwhelming evidence and, as a result, *"has regrettably forced FINADA, and now WADA, to devote significant and precious anti-doping resources to prosecuting his case.*

130. The submission according to which the administration of exogenous hGH constitutes an aggravating factor has no foundation in the Finnish ADR, which under its Articles 10.2 or 10.6 does not differentiate between various forms of first offence or suggest that doping with hGH attracts *ratione materiae* a higher sanction than the presence of another prohibited substance. It is the circumstances of the offence, not the offence itself which may aggravate. In the view of the Panel, there are here no facts alleged or substantiated by WADA that by nature are a possible aggravating factor which could lead to a higher sanction than the two years ineligibility for a first offence.

131. In the proceedings before the CAS, the Athlete has contested having ever used exogenous hGH or any other prohibited substance. He alleges that there must be *"some physiological or scientific explanation for his high test values"*.

132. The minimum period of ineligibility is prescribed by Article 10.2 of the Finnish ADR, i.e. 2 years. The Athlete has not sought to adduce mitigating circumstances under Articles 10.5.1 of the Finnish ADR ("No Fault or Negligence"*),* 10.5.2 ("No significant Fault or Negligence"), 10.5.3 ("substantial assistance") or 10.5.4 ("Admission") or otherwise and in view of the circumstances, the requirements of those provisions are obviously not met.

133. As a result, the Panel considers it appropriate to declare that the Athlete ineligible for a period of two years. Credit is however to be given to the Athlete for the period of 602 days, corresponding to the period from 27 October 2011 to 19 June 2013, in which a provisional suspension has been applied.

134. In addition to the sanction of ineligibility, WADA has requested the Panel to disqualify all competitive individual results obtained by the Athlete from 7 September 2011 (*i.e.*, the date of collection of the sample, reported to be positive on 25 October 2011) to the date of the commencement of the period of ineligibility imposed pursuant to the CAS award.

135. According to Article 10.8 of the Finnish ADR, *"all … results in competitions obtained from the date of an Adverse Analytical Finding or other anti-doping rule violation through the commencement of the Provisional Suspension shall be disqualified and any points, medals or prizes declared forfeited unless fairness requires otherwise"*. Pursuant to the corresponding provision of the WADA Code (see its Article 10.8), *"all … competitive results obtained from the date a positive Sample was collected (whether In-Competition or Out-of-Competition), or other anti-doping rule violation occurred, through the commencement of any Provisional Suspension or Ineligibility period, shall, unless fairness requires otherwise, be Disqualified with all of the resulting Consequences including forfeiture of any medals, points and prizes"*. In other words, there is a discrepancy between the text of the Finnish ADR and the WADA Code as to the date from which the "competitive results" are to be disqualified *"unless fairness requires otherwise"*. WADA requested disqualification from the date indicated in the WADA Code.

136. The Panel, however, does not need to identify in this case whether the starting date for disqualification is the date indicated in the Finnish ADR (*"the date of an Adverse Analytical Finding"*: 25 October 2011), or the date mentioned in the WADA Code (the *"date a positive Sample was collected"*: 7 September 2011). In fact, the Panel finds that the circumstances in which these proceedings have taken place and the corresponding element of fairness requires otherwise.

137. In this respect the Panel notes that the Athlete was provisionally suspended from 27 October 2011 until 19 June 2013, when the FINADA Supervisory Board acquitted him. Subsequently, the Athlete won the next round before the Finnish Sports Arbitration Board, which found the evidence against him unconvincing. In other words, the Athlete's right to compete following the sample collection was confirmed by decisions of the Finnish disciplinary bodies. It was only in June 2014 that WADA was in a position to answer – in a documented manner – the issues raised in the *Veerpalu* Case and in the earlier instances (i.e. the FINADA Supervisory Board and the Finnish Sports Arbitration Board). Accordingly, the Panel finds that fairness requires (in accordance with Article 10.8 of the Finnish ADR) that the Athlete's results should not be disqualified, including his event medals, his points and prizes, if any, that were obtained in the period before the date of the notification of the present award, in respect to that period during

which he was allowed to compete (*i.e.* before the provisional suspension was imposed and after the lifting of such provisional suspension, through the date of notification of the present award).

ON THESE GROUNDS

The Court of Arbitration for Sport rules:

1. The appeal filed by WADA against the decision issued on 5 December 2013 by the Finnish Sports Arbitration Board is partially upheld.

2. The decision issued on 5 December 2013 by the Finnish Sports Arbitration Board is annulled.

3. Mr Juha Lallukka is found guilty of an anti-doping rule violation and is declared ineligible for a period of two years running from the notification of the present award. The period of provisional ineligibility of 602 days served by Mr Juha Lallukka between 27 October 2011 and 19 June 2013 is credited against the total period of ineligibility to be served.

4. Mr Juha Lallukka's results, including his event medals, his points and prizes, obtained through the commencement of his period of provisional ineligibility (27 October 2011) and in the period from 19 June 2013 to the date of the notification of the present award are not forfeited.

5. (…)

6. (…)

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