Tribunal Arbitral du Sport
Court of Arbitration for Sport

CAS 2004/O/679 USADA v/Bergman

ARBITRAL AWARD

delivered by the

COURT OF ARBITRATION FOR SPORT

sitting in the following composition:

President: Dr. Dirk-Reiner Martens, Attorney-at-law, Munich, Germany

Arbitrators: Prof. Richard H. **McLaren**, Barrister-at-law, London, Canada
Dr. Christian **Krähe**, Attorney-at-law, Konstanz, Germany

Ad-hoc Clerk: Patrick **Clement**, Law-student, London, Canada

in the arbitration between

United States Anti-Doping Agency (USADA)
- Appellant -

Represented by Mr. Richard **Young**, Esq.,Attorney-at-law, Colorado Springs, Colorado, USA

and by Mr. Travis T. **Tygart**, Esq., Director of Legal Affairs, United States Anti-Doping Agency, Colorado Springs, Colorado, USA

and

Mr Adam Bergman, Minneapolis, Minnesota, USA
- Respondent -

Represented by Mr. Robert E. **Cattanach**, Esq., Attorney-at-law, Minneapolis, Minnesota, USA

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I. PARTIES CONCERNED

1.1 The Appellant, the United States Anti-Doping Agency ("USADA") is the independent anti-doping agency for sport in the United States and is responsible for conducting drug testing and adjudication of positive test results pursuant to the United States Anti-Doping Agency Protocol for Olympic Movement Testing (the "USADA Protocol")

1.2 The Respondent, Mr. Adam Bergman, is a racing cyclist in the elite class category, resident in Minnesota, USA.

II. FACTS

2.1 UNDISPUTED FACTS

2.1.1 On 6 April 2004, the Respondent provided a urine sample as part of the USADA Out-of-competition testing program. His sample was sent to the UCLA Olympic Analytical Laboratory ("UCLA Laboratory") in California for analysis. The UCLA Laboratory is WADA-accredited.

2.1.2 A letter to the Respondent communicated the results of the UCLA Laboratory on 4 June 2004. The letter stated that his A sample from 6 April 2004 had tested positive for a prohibited substance under the Union Cycliste Internationale ("UCI") Anti-Doping Examination Regulations as applicable in April 2004 ("UCI Antidoping Regulations"), namely recombinant human Erythropoietin ("rEPO"). The UCLA Laboratory found it to contain rEPO with a basic area percentage of 79.5%.

2.1.3 Erythropoietin ("EPO") is a hormone naturally produced by the human body. The natural production of this hormone is referred to as endogenous or natural EPO. EPO also has several synthetic versions, such as "alpha rHuEpo", "beta rHuEpo" and "omega rHuEpo". In both synthetic and natural forms, EPO stimulates the production of red blood corpuscles. A greater number of red blood cells that carry oxygen to the body's muscles result in increased aerobic capacity for an athlete, which can enhance performance. The benefits are most significant for endurance athletes. rEPO is not produced by the body and must be administered exogenously. Therefore, its presence is indicative of the intentional administration of an external source. All synthetic forms of EPO are substances prohibited by the UCI Antidoping Regulations.

2.1.4 On 18 June 2004, the UCLA Laboratory analysed the B sample. The B sample analysis confirmed the positive A sample for a finding of rEPO. The laboratory found it to contain rEPO with a basic area percentage of 79.4%. A letter to the Respondent communicated the results of the B sample on 1 July 2004.

2.1.5 In this 1 July 2004 letter, the Respondent was informed that his case would be forwarded to a Panel of the USADA Anti-Doping Review Board for its consideration and

recommendation as to whether there was sufficient evidence of doping to proceed to a hearing.

2.1.6 On 19 July 2004, USADA informed the Respondent that the USADA Anti-Doping Review Board had reviewed the information submitted to it and that USADA was charging the Respondent with an anti-doping rule violation and thus proceeding with the adjudicative process set forth in the USADA Protocol. USADA sought a suspension of two years and a fine of CHF 2000 (two thousand Swiss Francs).

2.1.7 The Respondent decided to contest the sanction proposed by USADA and requested a single final hearing before CAS conducted in the United States as described in s. 9(b)(iv) of the USADA Protocol.

2.1.8 The Respondent accepted a provisional suspension as a result of the alleged doping violation. The provisional suspension commenced on 23 July 2004. The Respondent signed the acceptance on 27 July 2004.

2.2 PARTIES' SUBMISSIONS

2.2.1 Appellant's submissions

2.2.1.1 The Appellant USADA submits that the only contested issue before this panel is what are the acceptable criteria for calling a sample positive for rEPO.

2.2.1.2 Relying on previous CAS cases, the Appellant contends that the 80% Basic Area Percentage ("BAP") criterion does not apply within the UCI rules. Additionally, it submits that no CAS Panel has ever held that the 80% BAP criterion is required in an rEPO case and furthermore, there was no such rule in existence and that the UCI Antidoping Regulations provided that a sample can be proved to be positive for rEPO by every means available.

2.2.1.3 It is submitted that this Panel must decide whether it is comfortably satisfied that the Respondent's sample contained rEPO when every reliable means for assessing whether the sample is positive has been considered. It argues that the Basic Area Percentage ("BAP"), the Two-Band Ratio ("TBR"), the Band Location and the new World Anti-Doping Agency ("WADA") standard are all reliable criteria to declare a sample positive.

2.2.1.4 In regards to the BAP criterion, the Appellant presented new research to suggest that a reasonable threshold can be achieved at a much lower BAP than was previously thought to be the case. It was submitted that the risk of a false positive at a BAP of 80% was actually 1 in 500,000. Therefore, the threshold for the BAP criterion, if any, can and should be reduced. The Respondent's results of 79.5% and 79.4% are proof of the presence of rEPO.

2.2.1.5 The Appellant argued that that TBR criterion was also a reliable method to establish a positive sample. The Respondent's A and B samples provided TBR results of 2.5 and 2.9, respectively. It was submitted that a TBR of 1.8 would result in a false positive rate of less than 1 in 100,000.

2.2.1.6 According to the Appellant, the Band Location criterion is a reliable alternate method of determining a positive analytical result. The Respondent's sample is also positive under this criterion.

2.2.1.7 WADA has developed a new criterion for determining whether a sample is positive for rEPO. The Appellant submits that the Respondent's sample is clearly positive under the new WADA standard. Additionally, it is argued that even though the new WADA standard was not required at the time of the Respondent's test, it may be referenced as support and further confirmation of the other tests used to establish a doping violation in this case.

2.2.1.8 The Appellant submits that the full range of sanctions allowed under the UCI Antidoping Regulations should be applied in this case. The Prohibited Substance rEPO cannot be accidentally introduced into an athlete's body, therefore, according to the Appellant this was a case of intentional doping and article 130(2) of the UCI Anti-Doping Regulations in force at the time required an athlete to be suspended for a minimum of four years for an intentional doping violation.

2.2.2 Respondent's submissions

2.2.2.1 The Respondent argues that the Appellant has incorrectly charged him with a doping violation because he ignored the fact that the Respondent has not tested positive according to the universally recognized BAP standard of 80 percent. The Appellant was improperly relying on other criteria to prove a positive test.

2.2.2.2 Relying on CAS precedent, the Respondent argues that the Panel in *UCI v Hamburger* (CAS 2001/A/343) clearly stated that unless all samples demonstrate a BAP greater than 80%, the athlete should not be subject to sanction.

2.2.2.3 Additionally, the Respondent argues that CAS Panels have repeatedly cautioned against abandoning bright line quantitative standards for purposes of determining whether an athlete's sample should be considered positive for rEPO.

2.2.2.4 The Respondent challenges the Appellant's position that it can use any evidence for finding a positive sample. The Appellant's any evidence approach would completely eliminate all numerical thresholds previously required for a positive finding for any substance. It also submits that different criteria cannot be applied between two different athletes when determining what constitutes a positive finding for rEPO.

2.2.2.5 In regards to new methods for interpreting the test results, the Respondent argues that they cannot be used because they fail to meet the criteria set forth in the "Evaluation

Report of the Urine Epo Test" written by Dr. G. Peltre, ESPCI, LECA, Paris, France and Prof. Dr. W. Thormann, Department of Clinical Pharmacology of the University of Bern, Switzerland for the Council of WADA ("Evaluation Report"). This independent peer reviewed standard establishes the proper steps that would have to be taken in order to modify the existing method for evaluating rEPO test results. These methods do not have the scientific certainty necessary to have the required confidence in the methodology being used.

2.2.2.6 Additionally, the Respondent argues that the new WADA criterion should not be applied because the WADA Technical Document states that this standard only applies to samples analysed after 31 December 2004.

2.2.2.7 The Respondent argues that the other evaluation methods (*ie.* TBR, Band Location and the WADA standard) have never been relied upon by the Appellant in any proceedings other than as additional mechanisms to support a finding of positive when the BAP was greater that 80 percent.

2.2.2.8 Furthermore, the Respondent submits that no CAS Panel has ever concluded that these other fall back methods for interpreting rEPO data can be used to support a finding of positive if that approach produces a result that conflicts with the universally recognized standard of BAP greater than 80 percent.

2.2.2.9 The Respondent argues that a positive finding for rEPO must be based on something more than a "I know it when I see it" standard. In light of all the evidence, the Respondent argues that a doping violation has not been proved.

2.2.3 Stipulation of uncontested facts and issues between the parties

2.2.3.1 The parties stipulated and agreed to the following for the purposes of this hearing:

"1. That Union Cycliste Internationale ("UCI") definitions of doping and sanctions in effect on April 6, 2004 are applicable to this hearing for Mr. Bergman's positive test;

2. That Mr. Bergman gave the urine sample designated as USADA specimen number 477373 on April 6, 2004 during out-of-competition testing by USADA;

3. That each aspect of the sample collection and processing for the A and B bottles of the USADA specimen number 477373 was conducted appropriately and without error;

4. That the chain of custody for USADA specimen number 477373 from the time of collection and processing at the collection site to the receipt of the samples by the World Anti-Doping Agency accredited laboratory at the University of California in Los Angeles ("UCLA Laboratory") was conducted appropriately and without error;

5. That the UCLA Laboratory's chain of custody for USADA specimen number 477373 was conducted appropriately and without error;

6. *That the direct urine test (isoelectric focusing technique) performed by the UCLA Laboratory in relation to Mr. Bergman's urine sample was performed accurately and without error;*
7. *That recombinant human Erythropoietin ("r-EPO") is a prohibited substance classified under the applicable UCI Prohibited Substance List;*
8. *That to date, no WADA-accredited laboratory has reported to USADA a positive test for r-EPO under the Basic Area Percentage (BAP) test with a BAP of less than 80%, other than the UCLA Laboratory's proposed finding of positive for Mr. Bergman's sample;*
9. *That none of Mr. Bergman's samples showed a BAP in excess of 80%;*
10. *That to date, the parties are unaware of any CAS panel decision determining that an athlete has committed a doping offense for r-EPO with a BAP of less than 80%."*

III. PROCEEDINGS

3.1 On 3 August 2004, the Respondent, through his counsel, requested a single final arbitration before CAS to be conducted in the United States.

3.2 On 9 August 2004, the Appellant submitted a Request for Arbitration in accordance with Rule 38 of the Procedural Rules of CAS ("CAS Code"). In its request, the Appellant selected Prof. Richard H. McLaren as its arbitrator.

3.3 On 11 August 2004, the Secretary General of CAS, Mr. Matthieu Reeb, notified the Respondent of the request for arbitration and provided information about the deadlines for appointing an arbitrator and submitting an answer. On this same day the Secretary General also informed the parties that the present arbitration had been assigned to the Ordinary Arbitration Division of CAS.

3.4 On 19 August 2004, the Respondent timely appointed Dr. Christian Krähe to serve as arbitrator in accordance with article R40.2 of the CAS Code.

3.5 On 31 August 2004, the Respondent timely submitted an answer in accordance with article R39 of the CAS Code.

3.6 On 4 October 2004, the parties jointly requested the permission of CAS to delay the submission of the Appellant's statement of claim by one week until the 15 October 2004.

3.7 The two party appointed arbitrators agreed to appoint Dr. Dirk-Reiner Martens as President of the Panel. On 5 October 2004, the Secretary General of CAS notified the parties that the President of the CAS Ordinary Arbitration Division confirmed the constitution of the Panel.

3.8 The Appellant timely submitted its statement of claim with the CAS office and the Respondent on 15 October 2004.

3.9 On 29 October 2004, the Respondent requested, pursuant to article R44.3 of the CAS Code additional information from the Appellant in order to adequately respond to the Appellant's submission. The Panel made a ruling inviting the Appellant to provide CAS and the Respondent a copy of two cases handled by the Appellant involving rEPO. The Panel denied the two other requests.

3.10 On 28 December 2004, the CAS issued an Order of Procedure that was signed by both parties.

3.11 On 4 January 2005, the Secretary General of CAS notified the parties that the hearing would be held on 27 and 28 January 2005 at the American Arbitration Association ("AAA") office in New York, USA.

3.12 The Respondent's Answer was timely filed on 7 January 2005.

3.13 The hearing was held on 27 January 2005 at the AAA office in New York City, USA from 9:30am until 5:30pm. Those present were the members of the Panel and Mr. Patrick Clement as the ad hoc clerk. The Appellant was represented by Mr. Richard Young, attorney-at-law, and Mr. Travis T. Tygart, Director of Legal Affairs for USADA of Colorado, USA. Mr. Robert E. Cattanach, attorney-at-law of Minnesota, USA, represented the Respondent.

3.14 The following witnesses were heard at the hearing:

For the Appellant: Dr. Don H. Catlin, Director of the UCLA Olympic Analytical Laboratory, California, USA.

For the Respondent: Dr. Leo William Kueper, III, Specialist Chemist, 3M Pharmaceuticals, Minnesota, USA.

3.15 Prior to giving their testimony, the witnesses were cautioned about their duty to tell the truth in accordance with article R 44.2 of the CAS Code.

3.16 The parties both had the opportunity to submit opening and closing arguments.

3.17 None of the parties raised any objections to the way in which the arbitration proceedings were carried out or to the composition of the Panel. After each party had made its closing arguments the Panel closed the hearing and informed the parties that an award would be issued shortly.

IV. PROCEDURAL ISSUES

4.1 JURISDICTION OF CAS

4.1.1 The CAS's jurisdiction is based on Article 115 of the UCI's Antidoping Regulations:

> *"The person penalised or the UCI may appeal against a ruling made by the national federation specified in article 99 orm, by starting arbitration proceedings before an arbitration tribunal set up in accordance with the constitution and regulations of the CAS in Lausanne.*
>
> *No other form of appeal shall be permitted."*

4.1.2 This Panel also has jurisdiction through the Respondent's election to "proceed directly to a single final hearing before CAS conducted in the United States" under s. 9(b)(iv) of the USADA Protocol.

4.1.3 No objection was raised against the jurisdiction of CAS.

4.2 APPLICABLE LAW

4.2.1 Both parties agreed in their "Stipulation of Uncontested Facts and Issues" that the applicable rules are the UCI Antidoping Regulations. Therefore, this Panel will consider the UCI Antidoping Regulations that were applicable at the time the urine sample was collected.

4.3 REGULATORY FRAMEWORK

4.3.1 The applicable UCI Antidoping Regulations in force at the time of the sample collection were as follows:

> **"Article 3 – Prohibition of doping**
> 1. *Doping contravenes the fundamental principle of Olympism and sports and medical ethics.*
> 2. *Doping is forbidden.*
> 3. *Recommending, proposing, authorising, condoning or facilitating the use of any substance or method covered by the definition of doping or trafficking is also forbidden.*
>
> **Article 4 – Definition of doping**
> *Doping is:*
> 1. *the use of an expedient (substance or method) which is potentially harmful to athletes' health and/or capable of enhancing their performance, or*
> 2. *the presence in the athlete's body of a prohibited substance or evidence of the use or attempted use thereof or evidence of the use or attempted use of a prohibited method.*

Article 5 – List of classes of prohibited substance or and prohibited methods

1. *The list of classes of prohibited substances and prohibited methods is drawn up by the UCI Antidoping Commission and submitted to the UCI president for approval. The approved list, as published in the «information» bulletin, shall form an integral part of these regulations.*
2. ...

Article 6 – Material offence

The success or failure of the use of a prohibited substance or a prohibited method is not a prerequisite. The fact alone of the presence, the use or an attempt to use the substance or method is sufficient for the offense to be deemed to have occurred. Participants in cycle races are expected to undertake not to use prohibited substances or prohibited methods, even if they consider that neither the sporting outcome nor their health will be influenced. No discussion of this subject shall be entertained.

Article 10 - Proof

Doping and any other offence under these regulations may be proved by any means including presumption.

Article 11 – Proof

Accredited laboratories shall be presumed to have carried out the control and monitoring procedures in accordance with the rules and standard practice and the tests of the samples in accordance with acceptable current scientific standards. These assumptions may be overturned by proof to the contrary, but the laboratory shall not in the first instance be required to prove that it has carried out the procedures and tests in accordance with normal practice and standards.

Article 130 – Doping in general

In cases of doping other than those covered by article 129, the rider shall be penalized as follows:

1. *first offence, other than intentional doping – suspension for at least two years.*
2. *second offence or intentional doping – suspension for a minimum of four years up to and including suspension for life.*

Article 150 – Suspension from all competition

As regards international races and UCI out-of-competition tests, the suspension shall come into effect on the day following the date of the decision. However, at the request of the person suspended, the UCI antidoping commission may allow the suspension to come into effect on the date set by the decision or the regulations of the National Federation, or if it is earlier than the former, the date on which the person suspended was informed of the decision.

Article 205 – Errors in procedure – emergency measures

The formalities, procedures and time limits for antidoping tests set out in these regulations are intended to ensure that tests are carried out correctly. A failure to respect these conditions shall not of itself render the test null and void.

..."

4.3.2 The UCI Prohibited Classes of Substances and Prohibited Methods states in Section I.E. the following:

"**E. Peptide Hormones, Mimetics and Analogues**

...

6. Erythropoietine (EPO): a glycoproteinic hormone produced in the human kidney, which regulates, apparently by retroaction, the rate of synthesis of erythrocytes;

..."

4.3.3 The new 2004 UCI Antidoping Regulations applicable to sanctions which entered into force on 13 August 2004 are as follows:

"**Imposition of Ineligibility for Prohibited Substances and Prohibited Methods**

261. Except for the specified substances identified in article 262, the period of Ineligibility imposed for a violation of article 15.1 (presence of Prohibited Substance or its Metabolites or Markers), article 15.2 (Use or Attempted Use of Prohibited Substance or Prohibited Method) and article 15.6 (Possession of Prohibited Substances and Methods) shall be:

First violation: 2 (two) years' Ineligibility
Second violation: Lifetime Ineligibility"

4.3.4 The applicable USADA Protocol rules are as follows:

"**9. Results Management**

...

b. Adjudication

...

iv. The athlete, within ten (10) days following the Notice described in section (i) above shall be entitled, at his or her option, to elect by bypass the hearing described in section (ii) above and proceed directly to a single final hearing before CAS conducted in the United States. The CAS decision *shall be final and binding on all parties and shall not be subject to further review or appeal.*

v. ... Notwithstanding the foregoing; (a) The IOC laboratories used by USADA shall be presumed to have conducted testing and custodial procedures in accordance to prevailing and acceptable standards of scientific practice. This presumption can be rebutted by evidence to the contrary, but the accredited laboratory shall have no onus in the first instance to show that it has conducted the procedures other than in accordance with its standard practices conforming to any applicable IOC requirements;.."

..."

V. REASONS FOR THE DECISION

5.1 THE DOPING OFFENCE

5.1.1 Applicable regulations and strict liability

5.1.1.1 The parties have agreed in their stipulations that the UCI Antidoping Regulations apply to this case. It was also stipulated that rEPO is a prohibited substance under those Regulations.

5.1.1.2 Article 4 of the UCI Antidoping Regulations defines doping to be the presence of a prohibited substance in the athlete's body. The agreed upon stipulations establish this proposition. There is no requirement for the Appellant to prove any element of intent or negligence. The UCI cases over the years have established that the UCI Antidoping rules are ones of a strict liability offence (see for example *Meier v Swiss Cycling*, CAS 2001/A/343 and *UCI v Hamburger*, CAS 2001/A/343). Therefore, a doping offence has been committed under the UCI Antidoping Regulations subject only to the argument of the Respondent as to interpretation of the test results.

5.1.2 Burden and standard of proof

5.1.2.1 Article 10 of the UCI Antidoping Regulations provides that a doping offence may be proven "by any means". The CAS case law is to the same effect. The Panel in *USADA v Sheih*, AAA No. 30 190 001100 03 stated that "*UCI's position is that a sample can be proved to be positive for r-EPO by 'every means available'. (UCI v Hamburger at p. 4) This is also the precise meaning of the UCI Regulation under Article 11 [now Article 10].*"

5.1.2.2 The Respondent argued that the BAP criterion is the only valid standard to identify the presence of rEPO in the athlete's sample and submitted that the Evaluation Report by two scientific experts was critical of the BAP as an interpretation criterion for the analytical results. Article 10 does not support such a submission when it states that "*a doping offence may be proved by any means including presumption.*" The Evaluation Report is just that; an evaluation. The adoption by WADA of the current standard for interpreting rEPO tests reveals that WADA did not accept the conclusions of its consultants. Therefore, a Doping Offence has occurred and the burden of proving it has been satisfied by the Appellant.

5.1.2.3 Irrespective of the criteria used to prove the presence of rEPO in a sample, the standard of proof required to establish a doping offence has been clearly set out in the *Meier* and *Hamburger* cases. In order to find that the Respondent has committed a doping offence the facts have to be "established to the comfortable satisfaction of the court having in mind the seriousness of the allegation" (*Meier*, at p. 14 and *Hamburger*, at p. 14).

5.1.2.4 Both the UCI Antidoping Regulations and the USADA Protocol establish a presumption that a laboratory has carried out the tests of the samples in accordance with acceptable current scientific standards. Article 10 of the UCI Antidoping Regulations permits the use of the presumption found in Article 11 to establish the proof of the fact of a doping offence. When the article is combined with the agreed upon stipulations of fact a doping offence has unquestionably been established by USADA. What is at issue and what is challenged in this proceeding is the interpretation of the analytical results by the use of the BAP criterion and not the analytical result itself in the form of the electropherogram.

5.1.3 Direct urine test

5.1.3.1 The CAS cases of *Lazutina v IOC*, CAS 2002/A/370 and *Muehlegg v IOC*, CAS 2002/A/374 describe and approve the use of the direct urine test to detect rEPO in those cases and in this matter. This direct method combines an isoelectric focussing with a double immunal blotting. The method is based on the scientifically established proposition that artificially produced rEPO behaves differently in an electrical field because of its positive electrical charge. rEPO will move to the more basic area of a pH field. Conversely, endogenous EPO, having a majority of negative charges, will move predominantly to the acidic area of the pH field. The resulting distribution of the EPO hormones on the gel caused by the electrical field is photographed and developed as a computer image for visualization. The end result looks like rungs of a ladder without side rails. It is the interpretation of this result that is in dispute in these proceedings.

5.1.3.2 The scientific reliability of the test procedure was established and accepted in *Muehlegg v IOC*. The Panel in that case stated that it was *"unable to accept an assertion that the direct urine test is not valid for the detection of rEPO"* (at para 7.3.2.4). The Panel in *Sbeih* reconfirmed that *"the methodology of testing for erythropoietin was scientifically sound and that the results produced by the tests are reliable"* (at p. 10).

5.1.4 Criteria for a positive test

5.1.4.1 The agreed stipulations indicate that the testing procedure used by the Lab is not in dispute in this proceeding. The issue is the interpretation of the results of the test procedure as opposed to the procedure itself. Can the procedure results be interpreted as a positive analytical finding based on a criterion of a BAP that is below 80%? The subsidiary issue is whether the analytical result may be interpreted by other criteria such as the TBR, the Band Location or the 2005 WADA standard.

5.1.4.2 Certain prohibited substances are produced naturally in small quantities in the body. Therefore, the UCI Antidoping Regulations provide a threshold that must be exceeded in order to consider a laboratory analytical result to be positive. Thresholds are in place for certain substances such as nandrolone because of the fact that the human body produces the substance in small quantities. Human EPO is also produced naturally by the human body, as is nandrolone. The argument is that the 80% for a BAP positive is like the threshold for nandrolone or other drug testing thresholds. The reality is that the criterion for EPO is not a measurement over the threshold that must occur to take account of the

human body's production. The fact is that the BAP and the other interpretative criteria are used to declare not a threshold of human body production but rather an image from the electropherogram as indicating the presence of non-human EPO. Therefore, in the case of rEPO, there is no threshold above which it can be said there is non-human production of the substance rather there are criteria by which it can be said that what the image from the test procedure represents is rEPO. The argument of the Respondent is one of comparing apples to oranges when there is no comparison. rEPO is not produced by the body and must be administered exogenously. The various interpretative criteria are applied to the image to make the judgement as to whether the Lab test result and its accompanying image is revealing endogenous or exogenous EPO.

5.1.4.3 The image produced from the direct urine test generates a picture which looks like ladder rungs without side rails that must be further examined to determine if rEPO is present in the sample. The Appellant has presented four criteria by which to make that judgement as to whether the direct urine test results establish the presence of rEPO. These are the BAP, the TBR, the Band Location and the new WADA criterion that is supportive or collaborative of the previous three criteria. In opposition, the Respondent argues that only the 80% BAP criterion has been adopted and is in regular use in WADA accredited laboratories and therefore, is reliable to establish the presence of rEPO. It is further submitted that the threshold of 80% must be present to apply the only criterion accepted and recognised by the accredited laboratories.

5.1.4.4 The Respondent argues this position because in all of the positive rEPO cases the athlete's samples had a BAP above 80%. However, what the Respondent cannot do is point to a laboratory convention or standard that the BAP must be above 80%. It is a correct statement that all CAS cases on rEPO so far were decided on the basis of a BAP over 80%. Therefore, this case is one of first impression. However, the Respondent cannot point to scientific or laboratory requirements that an 80% BAP criterion is required under the UCI Antidoping Regulations or that the accredited laboratories required such a criterion to interpret their results. The Respondent does point to the Evaluation Report but that report has not been accepted by WADA itself. The UCI Antidoping Regulations do not refer to the BAP criterion or an established limit of 80%. The rules provide that the presence of rEPO can be proven *by any means*. A numeric limit does not exist. The Panel in *Hamburger* stated at p. 19 that a numeric limit below which a test is declared negative is desirable but not mandatory.

5.1.4.5 No CAS Panel has ever stated that an 80% BAP is necessary to find a sample positive for rEPO. The Respondent then plays upon the reality that no CAS Panel has made a decision finding a positive analytical result below 80% as reinforcement of the Evaluation Report criticism of the BAP, which we have previously noted were not accepted by WADA in its adoption of the 2005 standard.

5.1.4.6 In this case the Respondent's A and B samples were 79.5% and 79.4%, respectively. The determination of whether a doping infraction has been committed will depend upon the analysis of two sub-issues. Is the risk of a false positive low enough that a positive test can be confirmed on a BAP below 80%? Second, can other criteria than BAP be relied

upon in making the judgement about the image produced by the accredited laboratory when the BAP is below 80%?

5.1.5 Risks of false positive with a BAP below 80%

5.1.5.1 No laboratory and no international sports federation want to declare an analytical result to be positive when the testing procedure is producing a false result. In the early years of EPO testing 80% BAP was seen as a cut-off point because the risks of a false positive were considered to be acceptable at that percentage. During the *Hamburger* case in 2002, research indicated that the risk of a false positive result at an 80% level was 1:15,000. In *IAAF v MAR and Boulami*, CAS 2003/A/452, research indicated that the risk of falsely identifying a sample as containing rEPO was 1 in 3,161. In both cases, the Panel concluded that this cut-off point largely eliminated the risks of false positives and they were comfortably satisfied that a doping offence had occurred.

5.1.5.2 Recent research now indicates that the risks of a false positive at 80% BAP are much lower than originally thought. In *Sbeih*, the Panel stated on p. 9 that the risk was actually 1 in 500,000. The same research shows that at a BAP of 74.86% the risk is 1 in 100,000. The Respondent's BAP values of 79.5% and 79.4% were only slightly below 80%. Given these new scientific findings, this Panel is confident in concluding that a BAP lower than 80% can still provide the assurance required to rule out a false positive. The Panel finds that it has been established to its comfortable satisfaction that the Respondent's analytical result can be interpreted as revealing the use of rEPO.

5.1.5.3 If any further collaborative support of the foregoing conclusion is required the Panel notes that the WADA Technical Document TD2004EPO states that "[f]urther research and experience has indicated that the identification criteria below are more discriminating than the '80% basic bands' rule and therefore the '80% basic bands' criterion should no longer be used." This does not mean that the BAP criterion is unreliable. New research and experience in rEPO testing has simply provided a more effective criterion to detect rEPO. This provides supportive collaboration that the presence of rEPO can be established even if the BAP is below 80%.

5.1.6 Additional criteria when the BAP is below 80%

5.1.6.1 The Appellant argues that criteria other than the BAP are equally scientifically reliable in interpreting the images produced from the testing procedure to be relied upon to establish the presence of rEPO, when the BAP is above or below 80%. The UCI regulations do not restrict this Panel's power to consider these other criteria.

5.1.6.2 The first criterion is the Two Band Ratio. The TBR approach compares the combined density of the two bands on the basic side of the first basic band in the athlete's sample with the two bands on the acidic side of that band. A significantly greater density in the two bands on the basic side signals the presence of rEPO in a sample. This method has been discussed in other rEPO cases but was never relied upon because the BAP in these

positive cases was over 80%. Dr. Catlin, in his testimony, indicates that this criterion also confirms the use of rEPO.

5.1.6.3 In his Clinical Chemistry article entitled "Detection of Recombinant Human Erythropoietin in Urine by Isoelectric Focussing", the Appellant's witness, Dr. Catlin, concluded that a TBR of 1.19 had a safety margin of 99% and a TBR of 1.8 had a risk of a false positive of less than 1 in 100,000. The Respondent's TBR results for his A and B samples were 2.5 and 2.9 respectively. The Appellant argues that this is a clear indication of rEPO in the Respondent's sample and the risk of a false positive for these results has a much smaller probability than the 1 in 100,000 risk at a TBR of 1.8. During the hearing, Dr. Catlin stated, in his expert opinion, that the TBR criterion is the most reliable method to determine the presence of rEPO. He had no doubts that the sample contained rEPO.

5.1.6.4 Band Location is the second criterion presented by the Appellant. The same article by Dr. Catlin states that a sample will be called positive if three criteria are met. First, that the bands that focus in the basic area of the lane, as determined by the location of the rHuEpo marker, must be darker than other bands in the same lane. Second, these bands must have the pI values as the bands in the nearest lane containing a rHuEpo marker. Third, the band 0 and the adjacent two bands in the direction of the cathode must be present. The Respondent's sample satisfied all three criteria. This is a further test on which to base the judgement that the substance the laboratory testing procedure revealed is a rEPO analytical result.

5.1.6.5 The third additional criterion is the WADA standard, effective 1 January 2005. This criterion has been set forth in a WADA Technical Document TD2004EPO and is entitled: *Harmonization of the Method for the Identification of Epoetin Alfa and Beta (EPO) and Darbepoietin Alfa (NESP) by IEF-Double Blotting and Chemiluminescent Detection.* The WADA standard sets forth three criteria that must be met in order to find a sample positive for rEPO. The Respondent's samples satisfied these criteria. Thus, the WADA criteria for interpreting the resulting test procedure image would also indicate rEPO as the analytical result. Of course, the WADA standard did not apply at the time of the urine sample being given and analysed by the UCLA Laboratory. While the Panel cannot rely upon this result to be comfortably satisfied that a doping offence occurred it can and does examine the criterion to collaborate the results derived by other criteria in use by accredited laboratories at the time of the giving of the urine sample.

5.1.6.6 Although this WADA standard is by the time of writing these reasons the criterion to determine a positive test, its application in this case is merely collaborative or supportive of the Panel's findings but not determinative of them. The Technical Document states that it is "required for analyses performed after December 31, 2004." The Respondent's sample was on 6 April 2004. Although this Panel cannot solely rely upon this criterion, it can definitely refer to the standard to serve as confirmatory evidence to support its decision.

5.1.7 Comfortable satisfaction of a doping offence

5.1.7.1 Although this Panel is experienced in rEPO cases, its determination is made upon the reliance on expert testimony. Dr. Catlin, who has been involved in drug testing since 1982 and his laboratory is one of the leading laboratories on EPO testing, expressed his expert opinion, that he had no doubts that the test results established the presence of rEPO in the Respondent's sample. Dr. Catlin based his conclusion on reliable scientific criteria and was not simply relying on the insufficient standard of "I know it when I see it". The testimony and evidence of the Respondent's expert did not cast doubt over the assertions and testimony of Dr. Catlin whose evidence is preferred to that of the Respondent's expert. The Respondent's expert witness, Dr. Keuper, admitted to not being an expert in drug testing and was unable to challenge or raise doubts about Dr. Catlin's expert testimony.

5.1.7.2 After examining and considering all the evidence, the Panel is comfortably satisfied that the Respondent's sample contained the prohibited substance rEPO. Therefore, the Panel finds that the Respondent's sample contained rEPO and the athlete is guilty of a doping violation under the UCI Antidoping Regulations.

5.2 SANCTION

5.2.1 Article 130 of the UCI Antidoping Regulations in force at the time the sample was collected states that the rider shall be penalized for two years for a first offence or four years up to life for a second offence or intentional doping.

5.2.2 It has already been stated that rEPO is not a substance that can be accidentally introduced into an athlete's body. Additionally, the Respondent has not provided any explanation as to why his sample tested positive for rEPO. Therefore, the Panel can only conclude that the Respondent intentionally used rEPO. Under the UCI Antidoping Regulations applicable at the time of the sample collection, this infraction would result in a minimum suspension of 4 years.

5.2.3 The new 2004 UCI Anti-Doping Regulations, which came into force on the eve of the 2004 Olympic Games as a result of the UCI incorporation of the WADA Code into its Regulations, contain different sanctions than the UCI Antidoping Regulations under consideration herein. Under the principle of *lex mitior*[1], if new rules come into force between the alleged Doping Offense and the hearing of the allegations, then the sanctions that are more favorable to the athlete must be applied. For a similar application to the rules of FINA who adopted the WADA Code as of 11 September 2003 see *Strahija v FINA* CAS 2003/A/507 at paragraph 7.2.2.

5.2.4 Under the current new UCI Antidoping Regulations, the sanctions no longer distinguish between an intentional or unintentional doping offence. The distinction is now only

[1] For a discussion of the principle see Lewis, A. & Taylor, J., *Sport: Law and Practice*: Butterworths (2003).

between a first and second violation. A first violation requires a two year period of ineligibility and a second violation requires lifetime ineligibility.

5.2.5 Therefore, the Panel must apply *lex mitior* and impose a first violation sanction of two years of ineligibility on the Respondent as stated in Article 261 of the new 2004 UCI regulations.

5.2.6 In accordance with article 150 of the UCI Antidoping Regulations, the sanction takes effect on the day following the final decision. However, the Respondent accepted a provisional suspension, which commenced on 23 July 2004. Therefore, the time served under this provisional suspension will be counted towards the Respondent's two-year suspension. The Respondent's period of ineligibility commenced on 23 July 2004 and will last until 22 July 2006.

VI. COSTS

Pursuant to art. R64.4 of the Code, the CAS Court Office shall, upon conclusion of the proceedings, determine the final amount of the costs of the arbitration, which shall include the CAS Court Office fee, the costs and fees of the arbitrators computed in accordance with the CAS fee scale, the contribution towards the costs and expenses of the CAS, and the costs of witnesses, experts and interpreters. In accordance with the consistent practice of CAS, the award states only how these costs must be apportioned between the parties. Such costs are later determined and notified to the parties by separate communication from the Secretary General of CAS.

Furthermore, in accordance with art. 9 b (vi) of the USADA Protocol in force at the time when the appeal has been filed with CAS, the costs of this arbitration shall be borne exclusively by USADA, whatever the outcome of the arbitration is.

ON THESE GROUNDS

The Court of Arbitration for Sport rules that:

1. The Respondent Adam Bergman is guilty of a doping offence under the UCI Antidoping Regulations applicable in April 2004.

2. The Respondent is declared ineligible for a period of two years under article 261 of the new 2004 UCI Antidoping Regulations. The period of ineligibility commenced 23 July 2004 and ends on 22 July 2006, having taken account of the provisional suspension already being served by the Respondent.

3. The costs of the present arbitration, to be determined and notified to the parties by the Secretary General of CAS, shall be borne by USADA.

4. Each party shall bear its own costs.

Done in Lausanne, 13 April 2005

THE COURT OF ARBITRATION FOR SPORT

President of the Panel

Dr. Dirk-Reiner Martens, Germany