

# INTERNATIONAL SKATING UNION

**To:**

**ISU Disciplinary Commission**

**Lausanne**

## STATEMENT OF COMPLAINT

**Complainant:**                    **International Skating Union, Lausanne**

**represented by Gerhardt Bubník and James. L. Hawkins, ISU Legal Advisors**

**Alleged Offender:**            **Claudia Pechstein**

**represented by     Simon Bergmann**

**Charges of violation of rule 2.2. of the ISU Anti-Doping Rules by the Use of  
a Prohibited Method**

(One copy with Exhibits has been mailed to Mr. Bergmann directly)

**I.**

## Charges and Applicable Rules

1.1. The ISU charges the Alleged Offender with violation of ISU Anti-Doping Rule 2.2 by use of a *Prohibited Method* that consists of taking into her body from time-to-time, orally or by injection, a red-cell stimulating substance that artificially enhances, beyond normal, her capacity to produce red blood cells that carry oxygen to muscles and organs with the purpose of reducing fatigue and providing her with an unfair advantage over her competitors in ISU speed skating competitions.

1.2. ISU Anti-Doping Rule 2.2 provides in part:

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

*2.2.2 The success or failure of the Use of a Prohibited Substance or Prohibited Method is not material. It is sufficient that the Prohibited Substance or Prohibited Method was Used or Attempted to be Used for an ISU Anti-Doping Rule violation to be committed.”*

1.3. Blood doping (manipulation) is a Prohibited Method under the List of Prohibited Substances and Methods – The 2009 Prohibited List, p.6 , M.1. Enhancement of oxygen transfer. **(Exhibit 1)**

1.4. The burden of proving that the Alleged Offender has engaged in the use of a *Prohibited Method* in violation of Rule 2.2 is upon the ISU. (ISU Anti-Doping Rules, Article 3, Rule 3.1).

Rule 3.2 then describes the methods of proof as follows:

*“3.2 Methods of Establishing Facts and Presumptions*

*Facts related to ISU Anti-Doping Rule violations may be established by any reasonably reliable means, including admissions. The following rules of proof shall be applicable in doping cases:”*

- 1.5. A revised WADA Code has entered into force on January 1, 2009. The ISU has during the year 2008 revised its own Anti-Doping Rules (“ISU Rules”) accordingly and they have too entered into force on January 1, 2009 (Communication 1546).

Following exactly the WADA Code, the ISU has added a new comment to article ISU Rule 3.2 as follows:

*“For example, the ISU or its Members may establish an anti-doping rule violation under article 2.2. (use of a Prohibited Substance or Prohibited method) based on the Skater’s admission, the credible testimony of third Person, reliable documentary evidence , reliable analytical data from either A or B sample as provided in the Comments to Article 2.2., **or conclusion from the profile of a series of the Skater’s blood or urine Samples**”.* (Highlighted by the Complainant).

## **II.**

### **Proof**

- 2.1. The ISU shall present the conclusions of expert medical witnesses drawn from the profile of a series of blood samples taken from the Alleged Offender and testimony of witnesses about supporting facts demonstrating to the comfortable satisfaction of the hearing panel that the Alleged offender did engage in a *Prohibited Method* of blood manipulation to artificially enhance her endurance and speed in ISU speed skating competitions, and that this *Prohibited Method* was manifested and confirmed **by the blood and urine samples taken from the Alleged Offender over a period of time and most recently at the 2009 World Allround Speed Skating Championships in Hamar, Norway and in a follow-up sample taken on February 18 , 2009**

**List of tests of the Alleged Offender and of the values obtained – Exhibit 2**

**III.**  
**Facts**

- 3.1. On February 6th, 2009, the day before the ISU World Allround Speed Skating Championships for ladies and men, as part of the ISU blood testing program (Communication No, 1520) a blood sample was taken from all skaters for hematological analysis. The analysis of the samples took place in the laboratory of the Hamar hospital, where a hematological analyzer Advia-120, was placed, calibrated and fine-tuned using the Sports Calibration protocol, and the ISU standards that have been applied for all previous ISU blood testing. It should be mentioned that all samples are measured in duplicate in order to avoid errors.
- 3.2. The data received from the laboratory did not raise suspicion, except for those for the Alleged Offender. While the normal range for %reticulocytes is 0.4-2.4%, her value was 3.5%, which is far above the normal upper limit. When combining this single value with earlier results and when plotting the %reticulocytes values in relation to the time of competitions each year, a highly suspicious profile was seen (i.e. sharp peaks in % reticulocytes from normal to highly abnormal). Cf. Graph below.
- 3.3. After discussing the abnormal results during the screening with the ISU delegate, the ISU Medical Advisor Harm Kuipers decided to take a post-race sample after the 3000 meter race from the Alleged Offender Saturday, February 7th. As an extra precaution, to avoid the possibility of a false interpretation or measurement error it was decided that instead of the regular one tube, two tubes of blood would be taken, both with a different bar code number. The different bar code number was yet another precaution to ensure the anonymity of samples during analysis.
- 3.4. The results showed that in each sample from the Alleged Offender with a different bar code, produced abnormally high values of percent reticulocytes (3.46% and 3.34%), which confirmed the results from the day before. The abnormally high values for %reticulocytes were confirmed in both samples on another hematological machine that was present in the lab, a Cell Dyne machine.

**Alleged Offender's results from tests conducted on February 6 and 7, 2009  
Exhibit 3**

**List of Code number of skaters' samples confirmed by skaters' signatures,  
including the Alleged Offender - Exhibit 4**

- 3.5. After consultation among the members of the ISU Medical Commission, the Commission has concluded that the Alleged Offender's results showed a highly abnormal picture of her blood which can only be reasonably explained as deliberate **blood manipulation. No other reasonable explanation can be given for this abnormal picture other than that manipulation** with an erythropoiesis stimulating substance approximately one week before she was scheduled to compete in ISU Events, including the Hamar Championships. If epo or any other blood cell stimulating substance would have been used for any medical reason this would have been declared in the doping control form.

**Testimony of :**        **Assoc. prof. Jane Moran, M.D**  
                                 **Univ. prof. Harm Kuipers, M.D., PhD**  
                                 **Univ. prof. Giuseppe D'Onofrio, M.D.**  
                                 **Pierre-Edouard Sottas, PhD**  
                                 (all under the address of the Complainant)

**IV.**

**Medical Proof**

- 4.1. The graph below **is presented to display a profile of the Alleged Offender's blood over a period of years. It shows the percent reticulocytes from blood analysis of the Alleged Offender from January 2001 to February 18, 2009.**

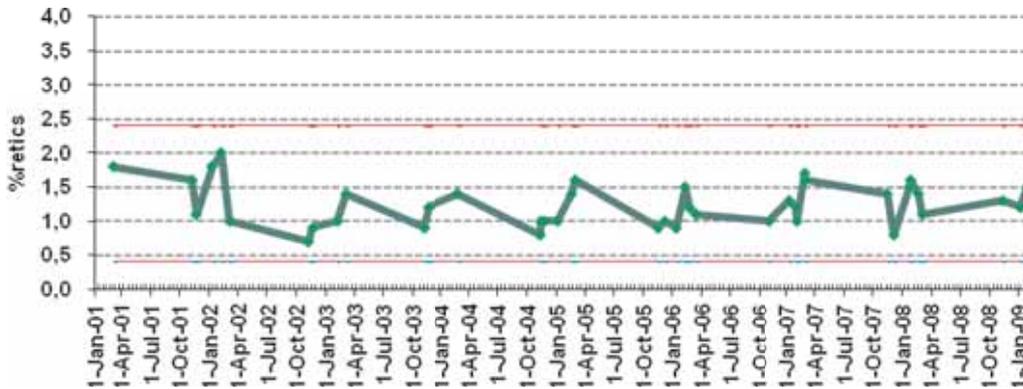
The lower and upper horizontal red lines are the lower and upper normal limit for reticulocytes, respectively. This graph is created from the ISU S.A.F.E. ("Safe and Fair Event Testing") software program where physiological blood parameters of all the skaters are stored. It should be noted that the sharp decline from the top value obtained on Feb 6, 2009 to the bottom value obtained by a new out-of-competition test taken on February 18, 2009 strongly supports the conclusion that a blood doping took place before February 6, 2009. (These two dates are not stated at the end of the line with dates but they do relate to the last top and bottom points).

**Graph 1**



For comparison the graph below shows the normal value usually found in skaters' samples.

**Graph 2**



- 4.2. In the first graph it can be seen that in winter season 2001-2002 %reticulocytes hit the upper limit of normal values. A series of samples taken after that yielded values in the normal range until spring of 2003.
- 4.3. It is remarkable that in the winter seasons from 2004 to 2006, **every time around January** some peak values of % reticulocytes above the upper limit were found despite having normal values and at times even a level as low as 1%.
- 4.4. In season 2006-2007 all values stayed within the normal range. However, in the season 2007-2008 not only was there a sharp peak again in the January time, but because of more targeted testing the ISU recorded four values above the normal upper limit.

- 4.5. In January 2009 again a sharp peak of % reticulocytes well above the normal limits was found in the blood of the Alleged Offender, a value **for which the only reasonable explanation is administration of a red blood cell stimulating drug.**
- 4.6. The following should be added:  
Out-of-competition tests are conducted almost exclusively by taking urine samples only. A drug stimulating production of red cells, such as epo, can only be detected in the urine for 3-4 days. It is therefore rare that an analysis of urine samples taken in an out-of-competition-test would show high values of exogenous epo.
- 4.7. There is a solid statistical basis for concluding that the results found for the Alleged Offender establish the Use of a Prohibited Method.  
The chance for a single value above the upper cut off level of 2.4% is approximately 1%. The chance for a value of percent reticulocytes above 3% is approximately 1‰. Occasionally when a single such high value is found, it is most likely caused by a measuring error. To ensure that such occasional single high value of % reticulocytes is not due to a measuring/analysis error, a repeat measurement/analysis of the sample is conducted and/or repeat blood samples are taken. When the repeat analysis and/or repeat blood sample yields normal results, the one abnormal value is considered as measurement error.
- 4.8. The chance that two consecutive samples give a value just above the upper limit of normal is 1‰. However, with higher values of percent reticulocytes the likelihood of such values in two consecutive samples is far less than 1‰. When repeat measurement/analysis confirms the result, from a medical/scientific point of view, it is considered an abnormal result. Therefore, when three consecutive samples yield a value for %reticulocytes above 3% it is very abnormal and the only plausible explanation is strong stimulation of red cell production. In healthy people, this can only be found during the recovery phase after severe blood loss or by administration of red cell production stimulating drugs (epo, or epo variants or the newest generation epo, called CERA, which stands for Continuous Erythropoietin Receptor Activator).

**Professional literature – Exhibit 5**

## V.

### **Legal and Medical Arguments**

- 5.1. Use of a Prohibited Method such as blood manipulation to artificially enhance sport performance is a violation of Article 2.2. of the ISU Rules.
- 5.2. The long term profile of the Alleged Offender shows results and reticulocytes values which cannot be found in a healthy person and which cannot be caused endogenously, i.e. by the own natural production of the skater's body organs. Also the changes in the lowest and highest value and their occurrences in time can be only explained as intentional manipulation with the purpose to enhance the skater's sport performance in competitions.

## VI.

### **Conclusions**

- 6.1. The ISU evidence establishes that the Alleged Offender did engage in a *Prohibited Method* of blood manipulation to artificially enhance her endurance and speed in ISU speed skating competitions, and that this *Prohibited Method* was manifested and confirmed by the blood and urine samples taken from the Alleged Offender over a period of time and most recently at the 2009 World Allround Speed Skating Championships in Hamar, Norway, as an anti-doping violation.  
This conviction is based on the following:
- 6.2. The pattern of reticulocytes over time shows a strongly abnormal pattern with values and peaks above the normal values, and these peaks occur at the same time annually (January in the competitive season). Outside of those times the % reticulocytes are normal.
- 6.3. The abnormal profile and fluctuations in percent reticulocytes can only be explained by the use of exogenous stimulation of erythropoiesis, as has been confirmed by statistical analysis performed by the Lausanne laboratory (Neil Robinson and Pierre-Edouard Sottas).

- 6.4. The pattern of reticulocytes, measured in consecutive samples during the Hamar event, is so abnormal that no physiological explanation can be given, leaving the only explanation that the skater has received exogenous epo or an epo-like agent.
- 6.5. The repeated sampling at this time indicates that this sample was not related to a measuring / analysis error. All sample analyses were run twice and any abnormal tests were again re-analyzed.

## **VII.**

### **Final Motion**

The ISU makes the following

#### **motion:**

- a) to find the Alleged Offender guilty of an anti-doping violation under article 2.2. of the ISU Rules,
- b) to impose on the Alleged Offender a sanction in accordance 10.2. of the ISU Rules which is a two year Ineligibility, alternatively
- c) to consider whether an increased sanction should not imposed under article 10.6. for the presence of aggravating circumstances, namely because :
  - (i) the Prohibited Method was used on multiple occasions, and/or
  - (ii) the violation was part of a doping plan or scheme,
- d) to disqualify the results of the Alleged Offender obtained in the 500m and 3000m races at the World Allround Speed Skating Championships on February 7, 2009, with forfeiture of all prizes and points.

## VIII. Evidence

The ISU presents as evidence:

- 1) documents such as :  
laboratory reports,  
doping control forms,  
graphs, etc.
  
- 2) testimonies of:  
witness and expert witness: Univ. prof. Harm Kuipers, M.D., PhD., ISU Medical  
Advisor  
expert witness: Assoc. prof. Jane Moran, M.D., Chair ISU Medical Commission,  
expert witnesses: Univ. prof. Giuseppe D'Onofrio, M.D. and Pierre-Edouard  
Sottas, PhD
  
- 3) professional medical and biochemical literature.

### List of Exhibits:

- Exhibit 1:** Prohibited List 2009, p. 1 and 6
- Exhibit 2:** List of tests and values obtained from samples of the Alleged Offender during the period 2000 – 2009
- Exhibit 3:** Alleged Offender's results from tests conducted on February 6 and 7, 2009
- Exhibit 4:** List of Code numbers of skaters' samples confirmed by skaters' signatures, including the Alleged Offender
- Exhibit 5** Professional Literature:
- a) *Banfi G.* Reticulocytes in sports medicine. Sports Med 2008; 38(3): 1-24
  
  - b) *Banfi G, Del Fabbrio M.* Behaviour of reticulocyte count and immature reticulocyte fraction during a competitive season in elite athletes of four different sports. Int Jnl Lab Heam 2007; 29: 127-131

c) *Lundby C, Achman-Andersen NJ, Thomsen JJ, Norgaard AM, Robach P.* Testing for recombinant human erythropoietin in urine: problems associated with current anti-doping testing. J Appl Physiol 2008; 105: 417-419

The following 2 articles will be presented to the Disciplinary Commission and to the attorney for the Alleged Offender within the next week:

d) *Banfi G, Mauri C, Morelli B, Di Gaetano N, Malgeri U, and Melegati G.* Reticulocyte count, mean reticulocyte volume, immature reticulocyte fraction, and mean spheroid cell volume in elite athletes: reference values and comparison with the general population. Clin Chem Lab Med 2006; 44(5): 616-622

e) *Segura J, Pascual JA, Gutierrez-Gallego R.* Procedures for monitoring recombinant erythropoietin and analogues in doping control. Anal Bioanal chem 2007; 388: 1521-1529

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