

## **Press Release concerning the Team CSC Anti-Doping Program**

Enclosed please find the results of the first - roughly 400 – doping tests that has been conducted since the program was initiated mid December 2006.

Please read the introduction below and feel free to contact me for any further questions.

### **Results and Scope of the Project:**

“Team CSC Anti-Doping Program” has three aims:

1. To catch possible cheaters within the team
2. To set a new precedent in the anti-doping framework
3. To ensure and protect the health and integrity of the riders

Ad. 1. All 198 urine tests have been negative and all 225 blood tests have been within the limits set by UCI

Ad. 2. The extensive, out-of-competition test strategy is meant to put pressure on anti-doping authorities and other cycling teams to improve their anti-doping regimes so that more cheaters can be detected. The program has inspired UCI to launch the “100% against doping” campaign. In addition, other professional cycling teams seem to be interested in establishing similar programs for their team.

Ad. 3 Educating the riders throughout the program about their own physiology and giving them the possibility to see specifically how their values react to illness, travel, overtraining, altitude, competition etc. And, equally as important, creating an independent medical profile to protect the riders from false or unsubstantiated allegations

**These aims have successfully been obtained which puts this program well ahead of any anti-doping activity taking place in sports today.**

### **Testing and Collection of Results**

Collection of tests has been carried out unannounced and in mainly out-of-competition (85% of all tests). Urine and blood samples have been collected by the UCI certified, independent Stockholm-based anti-doping company, International Doping Test & Management. An equal number of tests will be obtained during the remainder of 2007, amounting to a total of more than 800 tests.

The tests include blood for blood profiles, blood transfusions and growth hormone, and urine tests for steroids and EPO. The medical personnel testing the riders are responsible for taking samples whenever they see fit; riders are contractually required to advise them about their whereabouts at all times so that they are tested without prior warning. The collection has taken place on four continents with the majority of tests planned during the out-of-season and pre-season period. On average, each rider has been tested 15 times; In the first four months of the program, each of the 28 Team CSC riders were tested more than any professional football player or basketball player will be tested in their entire career.

**Independence**

All tests have been done under the WADA Code, analyzed at WADA accredited laboratories and made available to the UCI. Now, after enough data has been accumulated, the aggregate results are being made available to the public. This strengthens the fact that this program is fully transparent.

Test results are forwarded by the WADA accredited laboratories to the UCI (and if “positive” to WADA) before the results are presented to the program manager and lastly to the Team CSC. No interference or tampering with results is possible.

**Administration of Measurements**

When more than four blood screenings have been determined an individual blood profile can be constructed and the likelihood of the magnitude of future blood samples can be established. Therefore a database has been constructed in order to follow the profiles of each rider facilitating a possible immediate follow-up test if needed.

Kind regards,

Rasmus Damsgaard  
MD, PhD  
Bispebjerg University Hospital  
Bispebjerg Bakke 23  
DK-2450 Copenhagen NV  
Denmark

## **Explanatory notes to Figures**

### **Haematocrit and Haemoglobin vs. Time**

The normal individual variation in haematocrit and haemoglobin is 15% at the most (e.g. 0.42-0.48 in haematocrit). This variation includes seasonal changes. However, the magnitude of sports specific factors such as training is difficult to establish. It is known that haematocrit and haemoglobin is higher at the beginning of the competition season and then declining in well-trained athletes. In addition, the extent of non-sport specific modalities such as illness, high altitude training, use of hypoxic chambers, overseas flights etc. influencing blood variables is not easy to establish. Thus, the variations in some elite athletes may express higher values than for normal, healthy people. By collecting repeated measurements over time the individual variation declines and sudden out-of-range values will progressively be easier to detect.

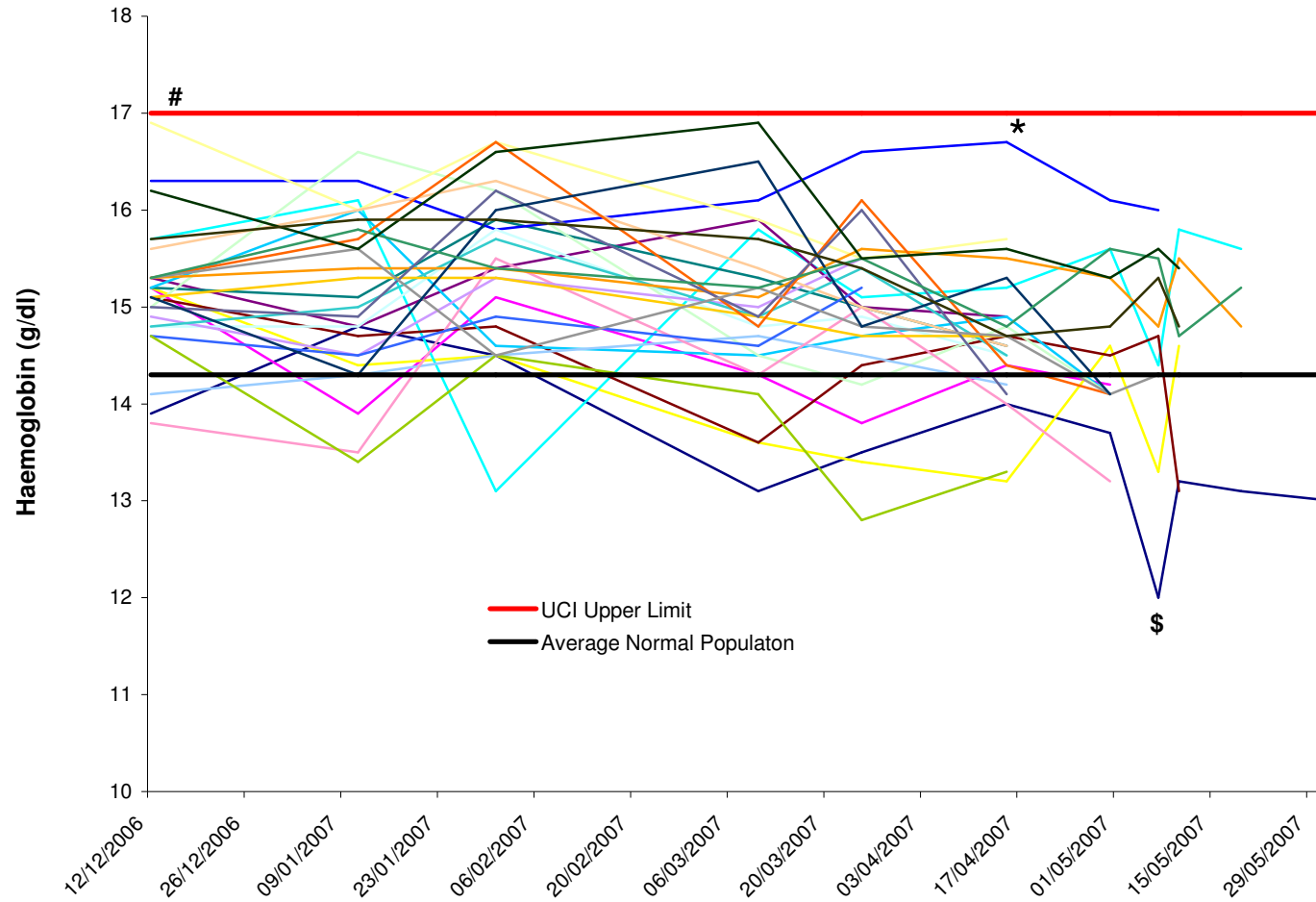
### **OFF-Score vs. Time**

The OFF-score is an equation containing haemoglobin and reticulocytes (the immature red blood cell). By combining the two variables it is possible to determine whether an athlete has used EPO or even performed (autologous) blood transfusion procedures. The upper limit set by UCI is 133. The program has chosen to reduce the upper limit to 125.6, which was the limit suggested by the authors of the OFF-score equation.

### **Blood Profiles**

An individual's blood profile consists of a combination of two blood variables – haemoglobin and reticulocytes. Reticulocytes are very sensitive to EPO and loss of blood (autologous blood transfusion) but less sensitive to i.e. altitude, illness, hypoxic chambers. Therefore, repeated measurements of reticulocytes in combination with haemoglobin helps discriminating between the use of forbidden substances/methods and normal conditions.

## Haemoglobin vs. Time

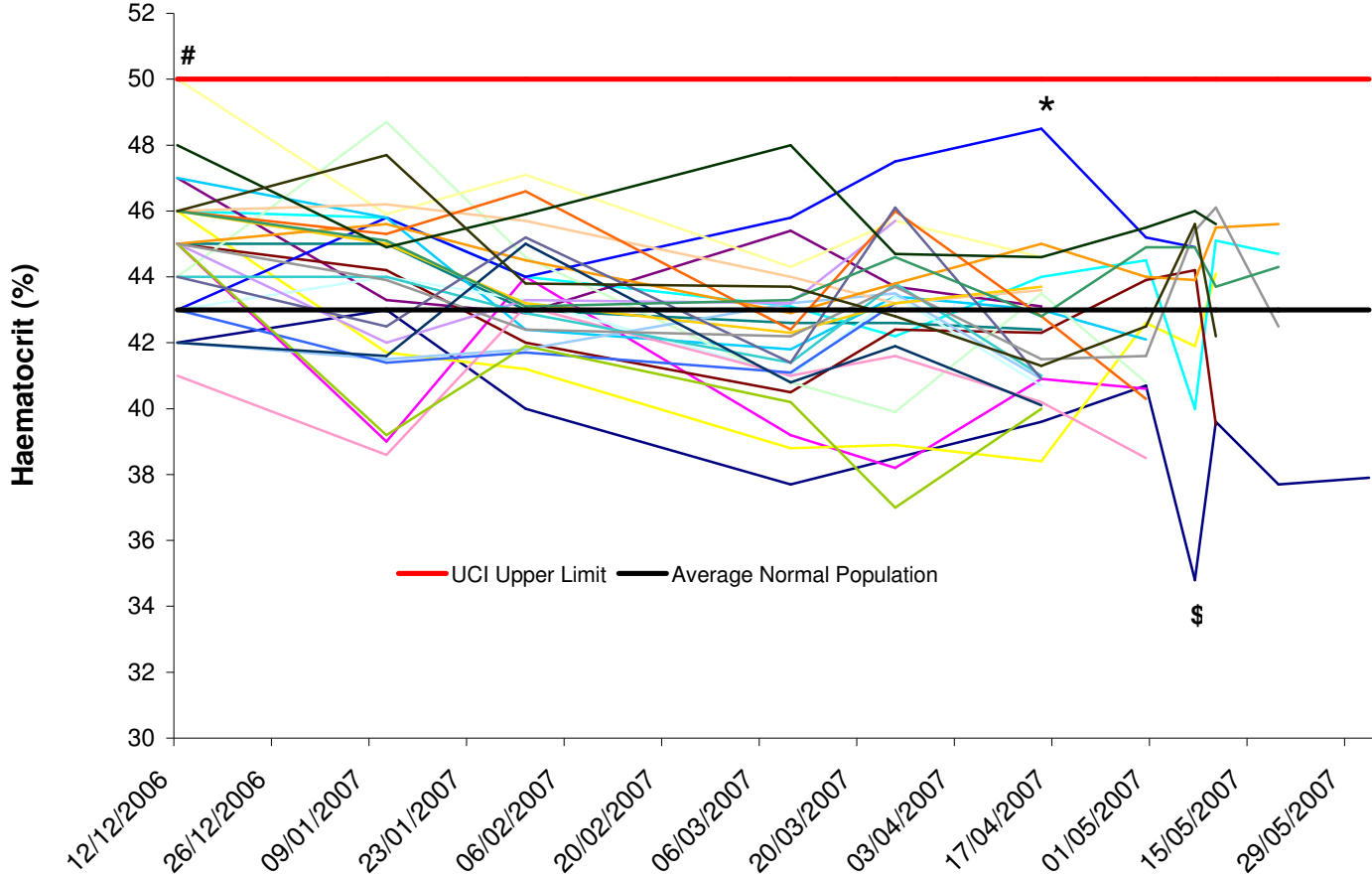


# Possible natural high haemoglobin in a young rider

\* UCI permission for exceeding upper limits due to documented natural high haemoglobin

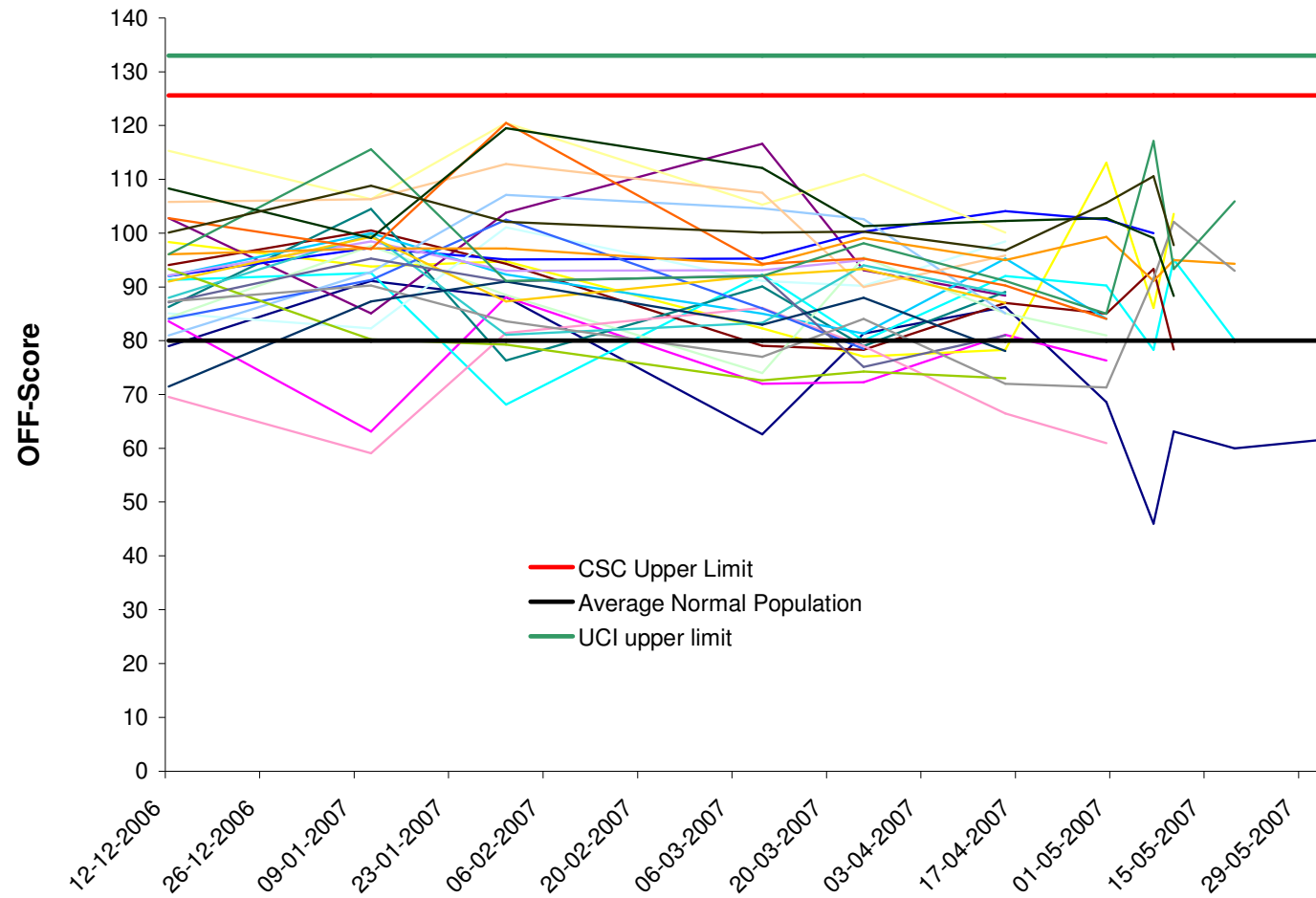
\$ Blood collected after days of high intensity competition

### Haematocrit vs. Time



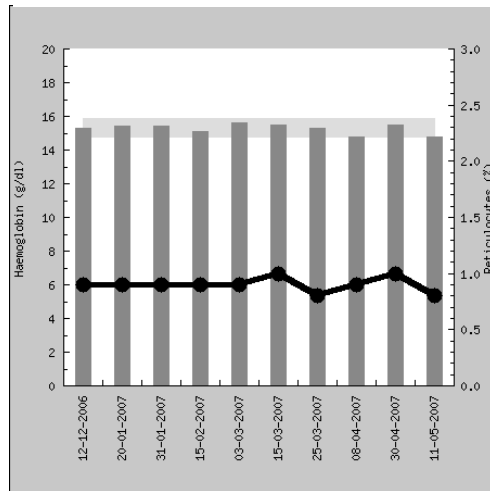
# Possible natural high haemoglobin in a young rider  
 \* UCI permission for exceeding upper limits due to documented natural high haemoglobin  
 \$ Blood collected after days of high intensity competition

# OFF-Score vs. Time



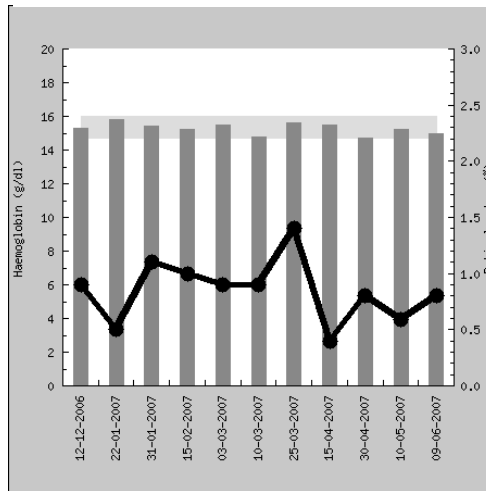
# Blood Profiles

## CSC Rider – Minor Variations



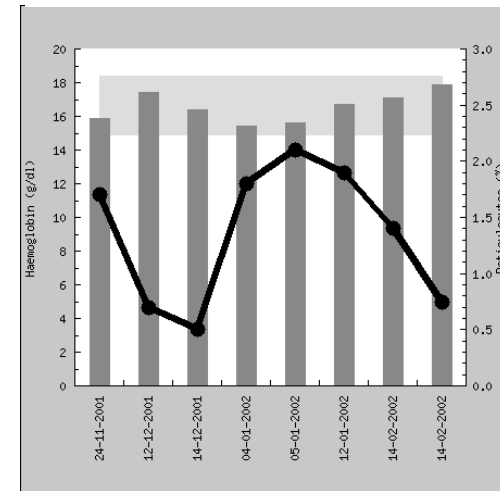
Blood profile with a minimum of variations in hemoglobin (grey bars) and reticulocytes (black line)

## CSC Rider – Normal Variations



Blood profile with normal variations in hemoglobin (grey bars) and reticulocytes (black line). In addition to 6 out-of-competition EPO and steroid tests, this rider had specific follow-up tests for EPO and blood transfusion – all negative

## Athlete (non-cyclist) – Positive for EPO



Blood profile with a characteristic “wave-like” pattern in an athlete tested positive for EPO in February 2002. The reticulocytes (black line) show major variations with concomitant increases in haemoglobin (grey bars)