

Curriculum vitae for Michael John ASHENDEN

Position:

Project Coordinator, Science and Industry Against Blood doping (SIAB) research project.

Qualifications:

B. App. Sci (1995) University of South Australia, Australia
PhD (1999) James Cook University, Australia

Professional Experience:

1996–2000 Exercise Physiologist, Department of Physiology, Australian Institute of Sport, Canberra

2000-June 2001 Consultant, EPO2000 Project, Australian Institute of Sport, Canberra

July 2001- Project Coordinator, Science and Industry Against Blood doping (SIAB)

Biography:

Michael Ashenden completed his undergraduate and doctoral degrees in the field of applied exercise physiology. His doctoral thesis on the haematological effects of simulated altitude exposure on elite athletes provides insight into potential physiological perturbations that may betray doping by both endogenous and exogenous substances. During six years employed at the Australian Institute of Sport, he worked directly on antidoping research that led to the development of a blood test for recombinant human erythropoietin abuse, and this culminated in his secondment to the EPO2000 project to troubleshoot scientific issues that could hinder its eventual implementation. He was a member of the EPO2000 delegation that presented Australian scientists' work to a specially convened meeting of the International Olympic Committee's Medical Commission at Lausanne in July 2000.

In addition to several scientific publications he has co-authored on the blood-based test for erythropoietin, Dr Ashenden has published an article addressing ethical concerns regarding the physiological effects of erythropoietin administration and simulated altitude exposure. He has published two editorial articles to heighten international awareness of the complexity of antidoping research and emphasise the need to consult and carefully plan strategies with all stakeholders.

Currently Dr Ashenden is coordinating an antidoping research consortium, which is the recipient of funding from the World Anti-Doping Agency (WADA), United

States Anti-Doping Agency (USADA) and the Anti-Doping Denmark (ADD) to investigate techniques to deter blood doping. The consortium is actively involved with research into the detection of erythropoietic stimulants, haemoglobin-based oxygen carriers, and blood transfusion, as well as research to validate the concept of the Haematological Passport.

Publications – peer reviewed journal articles (selected):

Ashenden MJ. A strategy to deter blood doping in sport. *Haematologica*. 87:225-234, 2002.

Ashenden MJ. Contemporary issues in the fight against blood doping in sport. *Haematologica*. 89:901-903, 2004.

Schumacher YO, **Ashenden MJ.** Doping with artificial oxygen carriers - an update. *Sports Med*. 2004 34(3):141-50.

Lasne F, Crepin N, **Ashenden M**, Audran M, De Ceaurriz J. Detection of Hemoglobin-Based Oxygen Carriers in Human Serum for Doping Analysis: Screening by Electrophoresis. *Clin Chem*. 2003 Nov 21.

Varlet-Marie E, **Ashenden M**, Lasne F, Sicart M-T, Marion B, de Ceaurriz J, Audran M. Detection of Haemoglobin-Based Oxygen Carriers in Human Serum for Doping Analysis. Part 2: Confirmation by Size Exclusion High Performance Liquid Chromatography. *Clin Chem*. 2004 Apr;50(4):723-31.

Ashenden M, Sharpe K, Damsgaard R, Jarvis L. Standardisation of reticulocyte values in an antidoping context. *Am J Clin Pathol*. 2004 Jun;121(6):816-25.

Nelson M, **Ashenden M**, Langshaw M, Popp H. Detection of homologous blood transfusion by flow cytometry: a deterrent against blood doping. *Haematologica*. 2002 Aug;87(8):881-2.

Nelson M, Popp H, Sharpe K, **Ashenden M**. Proof of homologous blood transfusion through quantification of blood group antigens. *Haematologica* 2003; 88:1284-1295.

Nelson M, Cooper S, Nahkla K, Smith S, King M, **Ashenden M**. Validation of a test designed to detect blood doping of elite athletes by homologous transfusion. *Aust J Med Sci*. Feb 2004;25(1):27-33.

Ashenden MJ, Hahn AG, Martin DT, Logan P, Parisotto R, Gore CJ. A comparison of the physiological response to simulated altitude exposure and r-HuEPO administration. *J Sports Sci*. 19: 831-837, 2001.

Parisotto R, Wu M, **Ashenden MJ**, Emslie KR, Gore CJ, Howe C, Kazlauskas R, Sharpe K, Trout GJ, Xie M and Hahn AG. Detection of recombinant human

erythropoietin abuse in athletes utilizing markers of altered erythropoiesis. *Haematologica*. 86: 128-137, 2001.

Parisotto R, Gore CJ, Hahn AG, **Ashenden MJ**, Olds TS, Martin DT, Pyne DB, Gawthorn K, Brugnara C. Reticulocyte parameters as potential discriminators of recombinant human erythropoietin abuse in elite athletes. *Int J Sports Med*. 21: 471-479, 2000.

Sharpe K, Hopkins W, Emslie KR, Howe C, Trout GJ, Kazlauskas R, **Ashenden MJ**, Gore CJ, Parisotto R, Hahn AG. Development of reference ranges in elite athletes for markers of altered erythropoiesis. *Haematologica*. 2002 Dec;87(12):1248-57.

Russell G, Gore CJ, **Ashenden MJ**, Parisotto R, Hahn AG. Effects of prolonged low doses of recombinant human erythropoietin during submaximal and maximal exercise. *Eur J Appl Physiol*. 2002 Mar;86(5):442-9.

Gore CJ, Parisotto R, **Ashenden MJ**, Stray-Gundersen J, Sharpe K, Hopkins W, Emslie KR, Howe C, Trout GJ, Kazlauskas R, Hahn AG. Second-generation blood tests to detect erythropoietin abuse by athletes. *Haematologica*. 88(3):333-44, 2003