Expert	Michael ASHENDEN
Nationality	Australia
Activity	Project Coordinator, Science and Industry Against Blood Doping (SIAB) Research Consortium, Gold Coast, Australia
Relevant publications	• *Effects of Hemopure on maximal oxygen uptake and endurance performance in healthy humans.* Int J Sports Med. 2007 May;28(5):381-5 • *The effects of microdose recombinant human erythropoietin regimens in athletes*. Haematologica. 2006 Aug;91(8):1143-4 • *A third generation approach to detect erythropoietin abuse in athletes.* Haematologica. 2006 Mar;91: 356-63 • *Longitudinal variation of hemoglobin and reticulocytes in elite rowers.* Haematologica. 2004 Nov;89(11):1403-4. • *Contemporary issues in the fight against blood doping in sport.* Haematologica. 2004 Aug;89(8):901-3 • *Effect of pre-competition and altitude training on blood models used to detect erythropoietin abuse by athletes* Haematologica, 2004 Aug; 89: 1019-20. • *Detection of hemoglobin-based oxygen carriers in human serum for doping analysis: confirmation by size-exclusion HPLC.* Clin Chem. 2004 Apr;50(4):723-31 • *Detection of hemoglobin-based oxygen carriers in human serum for doping analysis: screening by electrophoresis.* Clin Chem. 2004 Feb;50(2):410-5. • *Proof of homologous blood transfusion through quantification of blood group antigens.* Haematologica, 2003 Nov; 88: 1284–95 • *Effect of altitude on second-generation blood tests to detect erythropoietin abuse by athletes.* Haematologica, 2003 Sep; 88:1053-62. • *Development of reference ranges in elite athletes for markers of altered erythropoiesis.* Haematologica, 2002 Dec; 87:1248 - 57.
Other	Member of the WADA Working Group on Blood Parameters

Expert	Michel AUDRAN
Nationality	France
Activity	Professor, Biophysical and Bioanalysis Laboratory, Faculty of Pharmacy, University of Montpellier I, Montpellier, France
Relevant publications	• *Blood boosting today.* Bull Acad Natl Med. 2004;188(6):945-53. Review*Analysis of human reticulocyte genes reveals altered erythropoiesis: potential use to detect recombinant human erythropoietin doping.* Haematologica, 2004 Aug; 89: 991-7. • *Strengths and weaknesses of established indirect models to detect recombinant human erythropoietin abuse on blood samples collected 48-hr post administration.* Haematologica. 2004 Jul;89(7):891-2. • *Detection of hemoglobin-based oxygen carriers in human serum for doping analysis: screening by electrophoresis.* Clin Chem. 2004 Feb;50(2):410-5.

	• *Drugs for increasing oxygen and their potential use in doping: a review.* Sports Med. 2003;33(3):187-212. Review. • *Oxygen blood transport and doping.* Bull Acad Natl Med. 2003;187(9):1669-79; discussion 1680-3. Review. French. • *Methodologies used to screen for doping agents.* Ann Pharm Fr. 2002 Sep;60(5):310-3. Review. French. • *Effects of erythropoietin administration in training athletes and possible indirect detection in doping control.* Med Sci Sports Exerc. 1999 May;31(5):639-45. • *Erythropoietin abuse in athletes.* Nature. 1996 Mar 14;380(6570):113. • *Assessing erythropoiesis and the effect of erythropoietin therapy in renal disease by reticulocyte counting.* Clin Lab Haematol. 1996 Dec;18 Suppl 1:35-7. • *Total fibrin and fibrinogen degradation products in urine: a possible probe to detect illicit users of the physical-performance enhancer erythropoietin?* Horm Res. 1995;44(4):189-92. • *Transferrin soluble receptor: a possible probe for detection of erythropoietin abuse by athletes.* Horm Metab Res. 1994 Jun;26(6):311-2.
Other	Member of the WADA Working Group on Blood Parameters

Expert	Bo BERGLUND
Nationality	Sweden
Activity	Professor, Department of Medicine and Department of Chemistry, Karolinska University Hospital, Stockholm, Sweden Member of the Medical and Anti-Doping Committee of the International Canoe Federation
Relevant publications	• *The Swedish Blood Pass project.* Scand J Med Sci Sports. 2007 Jun;17(3):292-7. • *Effect of short-term and intermittent normobaric hypoxia on endogenous erythropoietin isoforms.* Scand J Med Sci Sports. 2003 Apr;13(2):124-7. • *Erythropoietin concentrations and isoforms in urine of anonymous Olympic athletes during the Nagano Olympic Games.* Scand J Med Sci Sports. 2002 Dec;12(6):354-7. • *Erythropoietin concentrations during 10 days of normobaric hypoxia under controlled environmental circumstances.* Acta Physiol Scand. 2002 Mar;174(3):225-9. • *Effect of salbutamol, a beta-2-adrenergic agonist, on erythropoietin concentration in healthy males.* Scand J Med Sci Sports. 2002 Feb;12(1):31-3. • *Short-term intermittent normobaric hypoxia--haematological, physiological and mental effects.* Scand J Med Sci Sports. 1998 Jun;8(3):132-7. • *Detection in blood and urine of recombinant erythropoietin administered to healthy men.* Med Sci Sports Exerc. 1995 Nov;27(11):1569-76. • *Treatment with recombinant human erythropoietin induces a moderate rise in hematocrit and thrombin antithrombin in healthy subjects.* Thromb Res. 1995 Jul 1;79(1):125-9.

	• *High-altitude training. Aspects of haematological adaptation.* Sports Med. 1992 Nov;14(5):289-303. • *Effect of recombinant human erythropoietin treatment on blood pressure and some haematological parameters in healthy men.* J Intern Med. 1991 Feb;229(2):125-30. • *Effects of blood transfusions on some hematological variables in endurance athletes.* Med Sci Sports Exerc. 1989 Dec;21(6):637-42. • *Serum erythropoietin in cross-country skiers.* Med Sci Sports Exerc. 1988 Apr;20(2):208-9. • *Development of techniques for the detection of blood doping in sport. Sports Med.* 1988 Feb;5(2):127-35. • *Effect of reinfusion of autologous blood on exercise performance in cross-country skiers.* Int J Sports Med. 1987 Jun;8(3):231-3. • *Detection of autologous blood transfusions in cross-country skiers.* Int J Sports Med. 1987 Apr;8(2):66-70.
Other	Member of the WADA Working Group on Blood Parameters Chief Physician, Swedish Olympic Committee

Expert	Giuseppe D'ONOFRIO
Nationality	Italy
Activity	Professor of Hematology, Director of the Transfusion Department at the Policlinico A. Gemelli, Rome, Italy
Relevant publications	• *International Council for Standardization in Haematology (ICSH) recommendations for "surrogate reference" method for the packed cell volume.* Lab Hematol. 2003;9(1):1-9. • *Addendum to strategies to deter blood doping in sports.* Haematologica. 2002 Mar;87(3):225-32. • *Highly fluorescent reticulocyte count predicts haemopoietic recovery after immunosuppression for severe aplastic anaemia.* Clin Lab Haematol. 1999 Dec;21(6):387-9. • *Guidelines for organisation and management of external quality assessment using proficiency testing. Expert Panel on Cytometry of the International Council for Standardization in Haematology.* Int J Hematol. 1998 Jul;68(1):45-52. • *Evaluation of the Abbott Cell Dyn 4000 automated fluorescent reticulocytes measurements: comparison with manual, FACScan and Sysmex R1000 methods.* Clin Lab Haematol. 1997 Dec;19(4):253-60. • *Autologous stem cell transplantation: evaluation of erythropoietic reconstitution by highly fluorescent reticulocyte counts, erythropoietin, soluble transferrin receptors, ferritin, TIBC and iron dosages.* Br J Haematol. 1997 Mar;96(4):762-75. • *Indicators of haematopoietic recovery after bone marrow transplantation: the role of reticulocyte measurements.* Clin Lab Haematol. 1996 Dec;18 Suppl 1:45-53. • *Automated reticulocyte counting for monitoring patients on chemotherapy for acute leukaemias and malignant lymphomas. Clin Lab Haematol.* 1996 Dec;18 Suppl 1:39-43. • *Reticulocytes in haematological disorders.* Clin Lab Haematol.

	1996 Dec;18 Suppl 1:29-34.
Other	Member of the WADA Working Group on Blood Parameters

Expert	Pierluigi FIORELLA
Nationality	Italy
Activity	Sports doctor, cardiologist; Director of the Olympus Medical Center in Ravenna. Member of the Scientific and Technical Commission of the Italian Athletics Federation; Member of the Health Protection Commission of the Italian Cycling Federation; Consultant for FC Internazionale Milan
Relevant publications	• *Valutazione della funzionalita' eritropoietica in atleti di endurance: vantaggi della citometria automatizzata.* Prog Med Lab, Vol.6, 5:400, 1992 • *Monitoring of the erythropoietic function in the athlete: a new approach.* Citoematologia e Automazione IX,1-2- 3:61-5,1993 • *Problemi ematologici ed immunologici.* In: Aspetti Tecnici, Fisiologici e Medici del Ciclismo Moderno. CESI, Roma, 91-100, 1994. • *Il profilo ematologico dell'atleta nelle categorie giovanili: indagine epidemiologica nel ciclismo.* Atti del Corso di aggiornamento CEFAR: La medicina di laboratorio nello sport. Torino 6 aprile 2001 • *Il Laboratorio nel monitoraggio dell'atleta.* Il Patologo Clinico 3-4:70,2001. Atti del 51° Congresso Nazionale AIPaC. Mondello (PA) 15-18 maggio 2001 • *Studio degli indici eritrocitari e reticolocitari nell'atleta: confronto tra ciclisti e maratoneti.* Atti del Congresso Nazionale dell'Associazione Nazionale Specialisti in Medicina dello Sport dell'Università "G.D'Annunzio", Chieti 24-27 giugno 2001: pag.554-555
Other	

Expert	Giuseppe FISCHETTO
Nationality	Italy
Activity	Specialist in Sports Medicine, Internal Medicine and Pneumology. Head of Emergency Dpt in Frascati-Marino Hospital, Rome, Italy Member of IAAF (International Association of Athletics Federation) Medical and Antidoping Commission. Head of Medical Dpt of Italian Athletic Federation (FIDAL)
Relevant publications	• *New trends in gene doping.* New Studies in Athletics v20(1) 2005; p.41-49 • *The future of doping and genetics* PASO Doping Control Seminar - Rio de Janeiro 2005 • *Genetic doping control; possible prevention.* PASO Doping Control Seminar - Rio de Janeiro 2005 • *Bioethical considerations, in Symposium on "Platelets derived growth factors".* EFOST 2006, 4th Meeting of European Federation of National Associations of Orthopaedic Sports Traumatology, Pavia 2006 • *How to overcome multiple negative EPO tests and indirect evidence of blood manipulation in multiethnic sports.*

	Proceedings IAAF World Antidoping Symposium Lausanne, 2006: 65-9 • *Nuove frontiere del doping genetico.* In Corso Nazionale su "Le cardiomiopatie nell'era della biologia molecolare e della genetica, Verbania, 2007
Other	Member of the WADA Working Group on Blood Parameters

Expert	Olivier HERMINE
Nationality	France
Activity	Professor, Service of Adults Hematology / Service of Infectious and Tropical Diseases, Necker Hospital, Paris, France
Relevant publications	• *Early high-dose erythropoietin therapy and hypothermia after out-of-hospital cardiac arrest: a matched control study.* Resuscitation. 2008 Mar;76(3):397-404 • *Hsp70 regulates erythropoiesis by preventing caspase-3-mediated cleavage of GATA-1.* Nature. 2007 Jan 4;445(7123):102-5 • *Anemia and chemotherapy of malignant hemopathies. Bull Cancer.* 2003 Apr;90 Spec No:S144-51 • *TGF-beta1 drives and accelerates erythroid differentiation in the epo-dependent UT-7 cell line even in the absence of erythropoietin.* Exp Hematol. 2000 Mar;28(3):256-66. • *Inhibition of the erythropoietin-induced erythroid differentiation by granulocyte-macrophage colony-stimulating factor in the human UT-7 cell line is not due to a negative regulation of the erythropoietin receptor.* Blood. 1996 Mar 1;87(5):1746-53 • *Further study of internal autocrine regulation of multipotent hematopoietic cells.* Blood. 1993 Sep 1;82(5):1502-6. • *Hemin or butyrate increases constitutive erythropoietin formation by mouse erythroleukemia cell lines*. Exp Hematol. 1993 Aug;21(9):1207-11. • *Granulocyte-macrophage colony-stimulating factor and erythropoietin act competitively to induce two different programs of differentiation in the human pluripotent cell line UT-7.* Blood. 1992 Dec 15;80(12):3060-9. • *An autocrine role for erythropoietin in mouse hematopoietic cell differentiation.* Blood. 1991 Nov 1;78(9):2253-60. • *Co-regulation of heme oxygenase and erythropoietin genes.* J Cell Biochem. 1991 Sep;47(1):43-8. • *Endogenous erythroid colony formation in patients with retinal vein occlusion.* Ophthalmology. 2007 Dec;114(12):2155-61. • *Erythropoiesis: a paradigm for the role of caspases in cell death and differentiation* J Soc Biol. 2005;199(3):219-31. • *Caspase activation is required for terminal erythroid differentiation.* J Exp Med. 2001 Jan 15;193(2):247-54. • *Paradoxical secondary polycythemia in von Hippel-Lindau patients treated with anti-vascular endothelial growth factor receptor therapy.* Blood. 2002 May 15;99(10):3851-3.
Other	Hematology Consultant, French Cycling Federation

Expert	Robin PARISOTTO
Nationality	Australia
Activity	Research Scientist
Relevant publications	• *Altitude training at 2690m does not increase total haemoglobin mass or sea level VO2max in world champion track cyclists.* J Sci Med Sport. 1998 Sep;1(3):156-70. • *Simulated moderate altitude elevates serum erythropoietin but does not increase reticulocyte production in well-trained runners.* Eur J Appl Physiol. 2000 Mar;81(5):428-35. • *A novel method utilising markers of altered erythropoiesis for the detection of recombinant human erythropoietin abuse in athletes.* Haematologica. 2000 Jun;85(6):564-72. • *Reticulocyte parameters as potential discriminators of recombinant human erythropoietin abuse in elite athletes* Int J Sports Med. 2000 Oct;21(7):471-9. • *Detection of recombinant human erythropoietin abuse in athletes utilizing markers of altered erythropoiesis.* Haematologica. 2001 Feb;86(2):128-37. • *Haematologic disorders,* Chapter 19:233-242. American College of Sports Medicine Handbook. Lippincott, Williams and Wilkins Philadelphia 2002 • *Development of reference ranges in elite athletes for markers of altered erythropoiesis*. Haematologica. 2002 Dec;87(12):1248-57. • *Second-generation blood tests to detect erythropoietin abuse by athletes.* Haematologica. 2003 Mar;88(3):333-44. • *The effect of common haematological abnormalities on the ability of blood models to detect EPO abuse by athletes.* Haematologica 2003. 88:931-40 • *Effect of altitude on second generation blood tests to detect erythropoietin abuse by athletes.* Haematologica 2003. 88(9):1053-62 • *Intermittent normobaric hypoxia does not alter performance or erythropoietic markers in highly trained distance runners*. J Appl Physiol. 2004 May;96(5):1800-7. • *Erythropoietic indices in elite Kenyan runners training at altitude.* East African Running. Chapter 11:199-214. Routledge London 2007 • *Gene Doping: A review of performance enhancing genetics.* Pediatr Clin N Am Oct 2007: 54; 807-22
Other	

Expert	Yörk Olaf SCHUMACHER
Nationality	Germany
Activity	Department of Sports Medicine, University of Freiburg, Freiburg, Germany
Relevant publications	• *Hb mass measurement suitable to screen for illicit autologous blood transfusions.* Med Sci Sports Exerc. 2007 Oct;39(10):1748-56. • *Haemoglobin Mass in Cyclists during Stage Racing.* Int J

	Sports Med. 2007 Jul 5; • *Effects of Hemopure on maximal oxygen uptake and endurance performance in healthy humans.* Int J Sports Med. 2007 May;28(5):381-5. • *Doping with artificial oxygen carriers: an update.* Sports Med. 2004;34(3):141-50. • *The influence of exercise on serum markers of altered erythropoiesis and the indirect detection models of recombinant human erythropoietin abuse in athletes.* Haematologica. 2003 Jun;88(6):712-4. • *Hematological indices in elite cyclists.* Scand J Med Sci Sports. 2002 Oct;12(5):301-8. • *Effects of exercise on soluble transferrin receptor and other variables of the iron status.* Br J Sports Med. 2002 Jun;36(3):195-9. • *Hematological indices and iron status in athletes of various sports and performances.* Med Sci Sports Exerc. 2002 May;34(5):869-75. • *Artificial oxygen carriers--the new doping threat in endurance sport?* Int J Sports Med. 2001 Nov;22(8):566-71. • *Blood testing in sports: hematological profile of a convicted athlete.* Clin J Sport Med. 2001 Apr;11(2):115-7. *Haemoglobin, haematocrit and red blood cell indices in elite cyclists. Are the control values for blood testing valid?* Int J Sports Med. 2000 Jul;21(5):380-5.
Other	Member of the UCI Medical Commission Chief Physician, German Cycling Federation