



Creatine
2010

CREATINE IN HEALTH, MEDICINE AND SPORT

DOWNING COLLEGE, CAMBRIDGE, UK

JULY 7th to JULY 10th 2010



DOWNING COLLEGE

Arranged through the HOWARD FOUNDATION, CAMBRIDGE

Principal sponsor: ALZCHEM, TROSTBERG GmbH, GERMANY



Creapure®

PROGRAMME

WEDNESDAY 7th July

12.00 – 17.00 Registration

17.00 – 17.45 Welcome drink

18.00 – 18.15 Opening address

Mark Tarnopolsky, Conference president

18.15 – 19.10 Cell Motility, Reaction-Diffusion Constraints and the Origin and Divergence of the Creatine Kinase Enzyme Family.

W. Ross Ellington, Institute of Molecular Biophysics and Department of Biological Science, Florida State University, Tallahassee, Florida 32306 USA.

19.30 Welcome buffet and entertainment, cash bar

THURSDAY 8th July

08.30 – 09.25 The creatine kinase system and the pleiotropic effects of creatine.

Theo Wallimann, formerly at the Institute of Cell Biology, ETH, Zurich, Switzerland

09.25 – 10.15 Creatine deficiency syndromes, and the importance of creatine synthesis in the brain.

Olivier Braissant, Inborn Errors of Metabolism, Clinical Chemistry Laboratory, Centre Hospitalier Universitaire de Lausanne and University of Lausanne, 1011, Lausanne, Switzerland.

10.15 – 10.45 Morning coffee

10.45 – 11.40 Use of Creatine in the Elderly and Evidence for Effects on Cognitive Function in Young and Old.

Eric S. Rawson, Bloomsburg University, PA, USA

11.40 – 12.15 The Metabolic Burden of Creatine Synthesis.

John T Brosnan, Department of Biochemistry, Memorial University of Newfoundland, Canada

12.15 – 12.50 Creatine improves health and survival of mice.

Thomas Klopstock, Friedrich-Baur-Institute, Department of Neurology, University of Munich, Germany

12.50 – 14.00 Lunch

14.00 – 14.55 Creatine monohydrate as a therapy for muscle disease and sarcopenia.

Mark Tarnopolsky, Department of Pediatrics and Medicine, McMaster University, Hamilton, Ontario, Canada

14.55 – 15.45 Neuroprotective Effects of Creatine.

M. Flint Beal, Weill Cornell Medical College, Department of Neurology and Neuroscience, New York, USA

15.45 – 16.15 Afternoon tea

16.15 – 16.45 Prevention of Complications Related to Traumatic Brain Injury in Children and Adolescents with Creatine Administration.

Athanasios Evangeliou, 4th Department of Pediatrics, Papageorgiou Hospital, Aristotle University, Thessaloniki, Greece

16.45 – 17.15 Adjunctive Creatine Treatment for Adolescent Females with Major Depressive Disorder who are Non-Responders to Fluoxetine (Prozac™): a 31-Phosphorus Magnetic Resonance Spectroscopy Pilot Study.

Douglas Kondo, The Brain Institute, University of Utah School of Medicine

17.15 – 17.45 Creatine-creatine kinase system in cancer diagnosis and the effect of creatine as adjuvant in cancer therapy.

Manju Ray, Department of Biological Chemistry, Indian Association for the Cultivation of Science, Jadavpur, Kolkata, India.

19.00 Dinner in Downing College for College residents, followed by cash bar, open to all. Cambridge at night

FRIDAY 9th July

08.30 – 09.25 The role of phosphorylcreatine in muscle energetics: more than a reservoir of high-energy phosphates.

Kent Sahlin, GIH, the Swedish School of Sport and Health Sciences, Åstrands Laboratory, and, Department of Physiology and Pharmacology, Karolinska Institutet, Stockholm, Sweden.

09.25 – 10.15 Interactions between Creatine and Carbohydrate Metabolism in Humans.

Paul L Greenhaff, School of Biomedical Sciences, University of Nottingham Medical School, Queen's Medical Centre, Nottingham, UK

10.15 – 10.45 Morning coffee

10.45 – 11.15 Efficacy and safety of creatine supplementation combined with exercise training in type II diabetic patients: a randomized, double-blind, placebo-controlled, clinical trial.

Bruno Gualano, University of Sao Paulo, Sao Paulo, Brazil.

11.15 – 12.00 Application of creatine and creatine derivatives in Sport: a systematic review.

Matthew D Vukovich, Dept of Health and Nutrition Sciences, South Dakota State University, Brookings, USA

12.00 – 12.45 Analysis of the Efficacy and Safety of Novel Forms of Creatine.

Richard B. Kreider, Exercise & Sport Nutrition Lab, Department of Health & Kinesiology, Texas A&M University, College Station, Texas, USA.

12.45 – 14.00 Lunch

14.00 – 14.45 Systems bioenergetics of creatine kinase networks and mechanisms of clinical effects of phosphocreatine (Neoton).

Valdur A Saks, INSERM U884, Joseph Fourier University, Grenoble, France and National Institute of Chemical Physics and Biophysics, Tallinn, Estonia

14.45 – 15.40 Creatine as an antioxidant.

Piero Sestili, Dipartimento di Scienze Biomolecolari – Università degli Studi di Urbino, Urbino, Italy.

15.40 – 16.00 Afternoon tea

16.00 – 16.55 Studies on the safety of creatine.

Jacques R Poortmans, Free University of Brussels, Belgium

19.00 Drinks and Gala Dinner (ticket only). Followed by cash bar, cash bar open to all.

SATURDAY 10th July

08.30 – 08.50 Creatine supplementation reduces increased plasma homocysteine induced by acute exercise in rats.

Rafael Deminice, Laboratory of Nutrition and Metabolism, University of Sao Paulo, Brazil.

08.50 – 09.10 Creatine Supplementation Attenuates Human Skeletal Muscle Damage Induced by Endurance Competition.

Reinaldo Abunasser Bassit, Department of Physiology and Biophysics, Institute of Biomedical Sciences, University of São Paulo, São Paulo, Brazil.

09.10 – 09.35 The effect of creatine in extreme sports

- 1. Creatine supplementation may benefit short duration, high intensity alpine or slalom skiing.**
- 2. Short duration high intensity sports climbing: increased power versus weight gain after Creatine supplementation?**

Scott M. Graham, Marianne, School of Sport, Faculty of Science, University of the West of Scotland, UK.

09.35 – 10.05 Supplements and Banned Substance Contamination: Offering Athletes an Informed Choice.

Dr Catherine Judkins HFL Sport Science, Newmarket, Cambridgeshire, UK

10.05 – 10.30 A look behind the scenes - Creapure® made by AlzChem Trostberg GmbH.

Dr Barbara Nieß, AlzChem Trostberg GmbH, Trostberg, Germany

10.30 – 10.55 Morning coffee

10.55 – 11.50 Problems with creatine supplements, manufacturing pathways as a cause of contaminants, and guarantees to resolve these.

RJ Maughan, Loughborough University, UK

11.50 – 12.20 Creatine in Health and Medicine

Invited speaker panel

12.20 – 12.50 Creatine in Sport

Invited speaker panel

12.50 – 13.10 Summing up and closure of Conference

Mark Tarnopolsky, Conference president

13.10 – 14.00 Lunch

14.00 – 16.00 A two-hour guided tour of Cambridge (delegates must book during the conference). There is no charge for this tour.

Free evening