Conference Programme

Saturday 28th June

From 12.00  Registration

From 17.45  Professor Michael Arthur, President and Provost of UCL
            Professor Clare Elwell, President of ISOTT2014
            Official welcome

            Nick Lane, UCL, UK – Keynote Talk
            Mitochondria: key to complexity

            Welcome reception, UCL Cloister and Roof Garden
Sunday 29th June

8.30 – 9.00  John Severinghaus, UCSF, USA – Plenary Talk
Crediting eight who helped discover oxygen

9.00 – 9.45  Carsten Lundby, University of Zurich, Switzerland - Keynote Talk
Oxygen transport after altitude training and EPO doping

9.45 – 10.15  Coffee break and poster viewing

Session: Muscle, oxygen and exercise

10.15 – 10.45  Ken Schenkman, Universtity of Washington, USA – Plenary Talk
Combined visible and NIR analysis of muscle oxygenation

10.45 – 11.00  Scott Bowen, Leipzig Universitiy, Germany
The spatial distribution of absolute skeletal muscle deoxygenation during ramp-incremental exercise is not influenced by hypoxia

11.00 – 11.15  Takuya Osawa, Japan Institute of Sports Sciences, Japan
The influence of exercise intensity and inspired O\textsubscript{2} on muscle deoxygenation were different between the thigh and calf during square-wave running exercise

11.15 – 11.30  Benjamin Jones, Universtiy of Essex, UK
Portable underwater Near Infrared Spectroscopy measurements of muscle oxygenation: laboratory validation and preliminary observations in swimmers and triathletes

Poster flash presentations

11.30 – 11.32  André Steimers, University of Applied Sciences Koblenz, Germany
Muscle oxygenation during running assessed by broad band NIRS

11.32 – 11.34  Royotaro Kime, Tokyo Medical University, Japan
Regional differences in muscle energy metabolism in human muscle by 31P-chemical shift imaging

11.36 – 11.38  Shun Takagi, Waseda University, Japan
Sex-related differences in muscle deoxygenation response during cycling exercise between aerobic capacity-matched elderly men and women

11.38 – 11.40  Eva Raisa Van Ginderdeueren, University Hospital Leuven, Belgium
Combined near-infrared spectroscopy and surface electromyography in Duchenne muscular dystrophy: contraction-induced changes in muscle oxygenation. Discussion and future prospects

11.40 – 11.42  Andri Feldmann, Swinco AG, Switzerland
Effect of respiratory manipulation on muscle oxygen saturation

11.42 – 11.44  Atsuhiro Tsubaki, Nigata University, Japan
Changes in oxyhemoglobin signal during low-intensity cycle ergometer activity: A near-infrared spectroscopy study

11.44 – 11.46  Sam Ballak, VU University Amsterdam, The Netherlands
Validation of a new semi-automated technique to evaluate muscle capillarisation
11.46 – 11.48  Takuya Osawa, Japan Institute of Sports Sciences, Japan
Validation of two tissue blood volume parameters measured by near-infrared spectroscopy

11.48 – 11.50  Masahiro Horiuchi, Yamanashi Inst. of Environmental Sciences, Japan
Reduction in cerebral oxygenation after prolonged exercise in hypoxia is related to changes in blood pressure

11.50 – 13.00  Lunch

Session: Altitude

13.00 – 13.45  Monty Mythen, UCL, UK – Keynote Talk
Human adaptation to hypoxia: lessons from Everest

13.34 – 14.15  Peter Wagner, University of California San Diego, USA – Plenary Talk
Exercise capacity and hemoglobin concentration in Tibetan high altitude natives

14.15 – 14.30  Ronan Astin, UCL, UK
Haemoglobin mass is greater in native Himalayan highlanders than native lowlanders

Poster flash presentations

14.30 – 14.32  Sainath Raman, Great Ormond Street Hospital, UK
Change in oxygen extraction at high altitude: YES2 study

14.32 – 14.34  Chris Wolff, Queen Mary College, UK
Relationships between AMS, SaO₂ and HR during a high altitude expedition to 5000 metres

14.40 – 15.25  Tea break and poster viewing

Session: Mathematical Models

15.25 – 15.55  James Bassingthwaighte, Univ. of Washington, USA – Plenary Talk
Modeling the pathway for oxygen

15.55 – 16.10  Adrian Luecker, ETH Zurich, Switzerland
Validation of a new model for oxygen transport in the microcirculation

16.10 – 16.40  Sergio Fantini, Tufts University; USA – Plenary Talk
A new model relates the tissue concentration of haemoglobin to microcirculation and oxygen consumption dynamics

16.40 – 16.55  Tharindi Hapuarachchi, UCL, UK
Simulation of neonatal brain metabolism using a computational model

Poster flash presentations

16.55 – 16.57  Tuhin K. Roy, Mayo Clinic, USA
Theoretical analysis of the determinants of lung diffusing capacity
16.57 – 16.59  **Paul Sweeney, UCL, UK**  
Mathematical modelling of blood perfusion and oxygenation in microvascular networks with applications in stroke research

16.59 – 17.01  **Zimei Rong, University of Nottingham Ningbo, China**  
Hemoglobin effects on nitric oxide mediated hypoxic vasodilation

17.01 – 17.03  **Franca Schmid, ETH Zurich, Switzerland**  
The impact of red blood cells on the flow in cortical microvascular networks

17.03 – 17.05  **Chris Wolff, Queen Mary College, UK**  
Regulation of blood flow and pressure

17.05 – 17.07  **Ufuk Olgac, University of Zurich, Switzerland**  
Dynamics of renal oxygen transport: three-dimensional computational whole kidney model

**Session: Critical Care Adult (I)**

17.10 – 17.40  **Edwin Nemoto, University of New Mexico, USA, Kovach Plenary Talk**  
Drag reducing polymer enhances microvascular perfusion in the traumatized brain with intracranial hypertension

17.40 – 17.55  **David Highton, National Hospital for Neurology & Neurosurgery, UK**  
Near infrared light scattering changes following acute brain injury

17.55 – 18.10  **Avraham Mayevsky, Bar Ilan University, Israel**  
Does brain sparing effect following hemorrhage remain intact under focal cerebral ischemia?

**Poster flash presentations**

18.10 – 18.12  **A. Trofimov, Nizhniy Novgorod State Medical Academy, Russia**  
Comparison of cerebral oximetry and cerebral perfusion computed tomography in cerebral blood flow monitoring in patients with brain injury

18.12 – 18.14  **Tsukasa Yagi, Surugadai Nihon University Hospital, Japan**  
Detection of ROSC in patients with cardiac arrest during chest compression using NIRS: a pilot study

18.14 – 18.16  **Duane Bruley, Sythesizer,Inc., USA**  
A compelling case for the use of perioperative zymogen protein C for increased patient safety

18.16 – 18.18  **Mark Koning, Erasmus University Medical Center, The Netherlands**  
Controlled hypoxia by in vivo clamping of mitochondrial PO₂

From 18.30  Great British Pub Evening at Jeremy Bentham Pub
Monday 30th June

**Session: Cancer Metabolism**

8.00 – 8.45  Sir Salvador Moncada, UCL, UK – Keynote Talk  
Mitochondria and cell proliferation

8.45 – 9.15  A.I. Minchinton, University of British Columbia, Canada – Plenary Talk  
Metabolic manipulation of hypoxia and radiotherapy response by electron transport inhibitors

9.15 – 9.30  Peter Vaupel, University Medical Center Mainz, Germany  
Adenosine accumulation: a crucial microenvironmental factor promoting cancer progression

**Poster flash presentations**

9.30 – 9.32  Geraldine De Preter, Catholic University Leuven, Belgium  
Effects of the hydrogen sulfide donor NaHS on the respiration of cancer cells: involvement of the acidic pH, drug concentration and cell type

9.32 – 9.34  Boris Epel, University of Chicago, USA  
Approaching oxygen-guided intensity modulated radiation therapy

9.34 – 9.36  Arnulf Mayer, University Medical Center Mainz, Germany  
Is there a role for CA IX in the prediction of the response to neoadjuvant chemoradiotherapy of locally advanced rectal cancer?

9.36 – 9.38  Marie-Aline Neveu, Catholic University Leuven, Belgium  
Impact of oxygenation status on $^{18}$F-FDG uptake inside solid tumors

9.38 – 9.40  Lin Z. Li, University of Pennsylvania, USA  
Imaging the mitochondrial redox ratio of living breast cancer cells

9.40 – 10.30  *Coffee break and poster viewing*

10.30 – 10.45  Geraldine De Preter, Catholic University Leuven, Belgium  
Direct evidence of the correlation between energetic metabolism and proliferation capacity of cancer cells *in vitro*

10.45 – 11.00  Anne Riemann, Martin Luther University Halle-Wittenberg, Germany  
Hypoxia-related acidosis promotes metastasis formation by enhancing tumor cell motility

11.00 – 11.15  Harold Swartz, The Geisel School of Medicine at Dartmouth, USA  
Repeated measurements of pO$_2$ in human subjects

**Session: Cellular Hypoxia**

11.15 – 11.45  Victor Darley-Usmar, The University of Alabama, USA – Plenary Talk  
The bioenergetic health index: a new concept in mitochondrial translational research

11.45 – 12.00  George Perdrizet, Kent Hospital, USA  
Preoperative stress conditioning in humans: is oxygen the drug of choice?
12.00 – 12.15  Jianhuan Zhang, The University of Alabama at Birmingham, USA
The effects of hypoxia-reoxygenation on neuronal bioenergetic response to nitric oxide and perturbation of glycolysis

12.15 – 12.30  David Wilson, University of Pennsylvania, USA
Regulation of mitochondrial oxidative phosphorylation: on the mechanism and kinetic behavior of cytochrome c oxidase

12.30 – 12.45  Elji Takahashi, Saga University, Japan
Survival of cells by anaerobic respiration

12.45 – 14.15  Lunch

14.15 – 14.45  Malou Friederich-Persson, Uppsala University, Sweden – Plenary Talk
Mitochondrial dysfunction in the development of nephropathy. Studies with diabetes, kidney transplantation and angiotensin II

14.45 – 15.00  Ken Jian Liu, University of New Mexico, USA
Normobaric hyperoxia reduces ischemic brain injury

15.00 – 15.15  Andrew Davies, UCL, UK
In vivo measurement of spinal cord oxygen saturation and blood flow in an animal model of neuroinflammatory disease

15.15 – 15.30  Kim Chisholm, UCL, UK
Vulnerability of brain mitochondria to hypoxia in a model of sepsis

Poster flash presentations

15.30 – 15.32  Tiffany Lodge, University of Oxford, UK
Sodium valproate induces mitochondrial dysfunction in a HepG2 liver model

15.32 – 15.34  Hua Shi, Huazhong University of Science and Technology, China
Mitochondrial NADH: an effective alarm parameter under four types of acute hypoxia

15.34 – 15.36  Masahiro Shibata, Shibaura Institute of Technology, Japan
Cardiovascular adaptation in response to chronic hypoxia in awake rats

15.36 – 15.38  Nobuo Watanabe, Shibaura Institute of Technology, Japan
Prototyping the experimental setup to quantify the tissue oxygen consumption rate and its feasibility test

15.38 – 15.40  Karl Morten, University of Oxford, UK
Model systems to investigate the mechanisms of ischaemia reperfusion injury in the liver: in vivo and in-vitro approaches

15.40 – 15.42  Jing Yuan, Huazhong University of Science and Technology, China
Quantitative high-resolution mapping energy metabolism state in large-size organ using all-in-liquid-nitrogen redox cryoimaging system

15.42 – 15.44  Tomiyasu Koyama, Hokkaido University, Japan
Breathing pores on ostrich egg shells

15.44 – 16.30  Tea break and poster viewing
16.30 – 16.45  Joe La Manna, Case Western Reserve University, USA
Aging effect on post-recovery hypoperfusion and mortality following cardiac arrest and resuscitation in rats

16.45 – 17.00  Karl Morten, University of Oxford, UK
Monitoring intracellular oxygen concentration - implications for hypoxia studies and real time oxygen monitoring

**Session: Optical Techniques (I)**

17.00 – 17.30  Arjun Yodh, University of Pennsylvania, USA – Plenary Talk
Optical measurements of cerebral blood flow: pressure modulation algorithms & other advances

From 17.30  Museum and Jazz Evening
Tuesday 1\textsuperscript{st} July

Session: Brain Oxygenation

8.00 – 8.45
Elizabeth Hillman, Columbia University, USA – Keynote Talk
Brain blood flow and metabolism; neurovascular mechanisms and postnatal brain developments

8.45 – 9.00
Clare Elwell, UCL, UK
Functional near infrared spectroscopy as an assessment tool for cognitive development in rural Gambia: studies from birth to 24 months of age

9.00 – 9.15
Takashi Matsumoto, Waseda University, Japan
Gender and age analyses of NIRS/STAI Pearson correlation coefficients at resting State

9.15 – 9.30
Kaoru Sakatani, Nihon University, Japan
Effects of cosmetic therapy on cognitive function of elderly women: a time-resolved spectroscopy study

Poster flash presentations

9.30 – 9.32
Kaoru Sakatani, Nihon University, Japan
Effects of acupuncture on anxiety levels and prefrontal cortex activity measured by near infrared spectroscopy: a pilot study

9.32 – 9.34
Tomotaka Takeda, Tokyo Dental College, Japan
Influence of pleasant and unpleasant auditory stimuli on cerebral blood flow and physiological changes in normal subjects

9.34 – 9.36
Robert Linsenmeier, Northwestern University, USA
Spontaneous fluctuations of \(\text{PO}_2\) in rabbit somatosensory cortex

9.36 – 9.38
Arnold Wilkins, Essex University, UK
Haemodynamics, hypermetabolism and homeostasis

9.38 – 9.40
Masahiko Nakano, Mitsubishi Gas Chemical Co., Inc., Japan
Effect of antioxidant supplements, pyrroloquinoline quinone disodium salt (BioPQQTM), on cognitive functions

9.40 – 9.42
J. Shi, Tsinghua University School of Medicine, China
Effects of aging on working memory performance and prefrontal cortex activity: a time-resolved spectroscopy study

9.42 – 9.44
Akitoshi Seiyama, Kyoto University, Japan
Estimation of skin blood flow artefacts on NIRS signals during a verbal frequency task

9.44 – 9.46
Bai Lei Sun, Huazhong University of Science and Technology, China
Detection of optical neuronal signals in vivo and noninvasively using continuous wave near-infrared spectroscopy

9.46 – 9.48
Haruna Takai, Niigata University of Health and Welfare, Japan
Effect of transcranial direct current stimulation over the primary motor cortex on cerebral blood flow: a time-course study using near-infrared spectroscopy
Qingming Luo, Huazhong University of Science and Technology, China
Hemispheric asymmetry during a Chinese color-word matching Stroop task: a NIRS-based connectivity study

Felix Scholkmann, University Hospital Zurich, Switzerland
Very-low frequency fluctuations in cerebral hemodynamics and oxygenation measured with fNIRS – New insights into their origin using the Stockwell-transform coherence and phase coupling analysis

Michiyo Konno, Tokyo Dental College, Japan
Relationships between gum chewing and stress

Coffee break and poster viewing

Session: Multimodal Imaging

Fahmeed Hyder, Yale University, USA – Plenary Talk
Oxidative demand and extraction in the awake human brain

Avraham Mayevski, Bar Ilan University, Israel
Brain mitochondrial NADH, microcirculatory blood flow and oxygenation compared to pulse oximetry measurements under oxygen deficiency

Gage Redler, University of Chicago
Towards human oxygen images with EPRI

Poster flash presentations

Shinsuke Nirengi, Ritsumeikan University, Japan
Evaluation of brown adipose tissue using near-infrared time-resolved spectroscopy

Linda Ahnen, University Hospital Zurich, Switzerland
Near-infrared image reconstruction of newborns' brains: stability under perturbations of the source/detector location

Qingming Luo, Huazhong University of Science and Technology, China
Small animal imaging using fluorescence molecular tomography and micro-computed tomography

Qingming Luo, Huazhong University of Science and Technology, China
Blood vessel imaging using multi-scale photoacoustic microscopy

Session: Optical Techniques (II)

David Boas, Harvard Medical School, USA – Plenary Talk
Capillary oxygenation is lower than venous because of capillary transit time heterogeneity

Sergei Vinogradov, University of Pennsylvania, USA
Two-photon phosphorescence lifetime microscopy (2PLM) of oxygen

Dmitri Papkovsky, University College Cork, Ireland
Optical imaging of cell and tissue oxygenation by means of cell-penetrating phosphorescent probes
12.40 – 12.55  Maritoni Litorja, National Institute of Standards and Technology, USA
Visualizing tissue oxygenation by optical reflectance imaging and correlation to clinical laboratory methods

12.55 – 13.10  André Steimers, University of Applied Sciences Koblenz, Germany
Spectroscopic, hyperspectral imaging of haemoglobin oxygenation

Poster flash presentations

13.10 – 13.12  Nassimsadat Nasseri, University Hospital Zurich, Switzerland
Local measurement of tissue oxygen saturation, an application of visible light spectroscopy

13.12 – 13.14  Hiroachi Suzuki, Hamamatsu Photonics, Japan
Hemodynamic measurements of human adult head in transmittance mode by near-infrared time-resolved spectroscopy

13.14 – 13.16  Ken Nadamoto, Keio University, Japan
Determination of optical properties of cortical tissue by lookup-table method for time-resolved measurement

13.16 – 13.18  Clare Thorn, University of Exeter Medical School, UK
Skin oxygen extraction derived during an arterial occlusion differs from that obtained in resting unperturbed skin

13.18 – 13.20  Tomotsugu Yasuda, Kagoshima University, Japan
Non-invasive monitoring of hepatic oxygenation using time-resolved spectroscopy

13.20 – 13.22  Yu Yoshimori, Keio University, Japan
Estimation of optical path length in blood vessels for optical imaging of expose cortex

13.22 – 13.24  Minami Kato, Keio University, Japan
Angular dependence of diffuse reflectance spectra of skin estimated by multi-layered model

13.24 – 13.26  Stefan Kleiser, University Hospital Zurich, Switzerland
The effect of changes in scattering and blood content on comparison of near-infrared oxygenation monitors in a liquid optical phantom

13.26 – 13.28  André Steimers, University of Applied Sciences Koblenz, Germany
Efficient algorithm for the temporal and spatial based calculation of speckle contrast

13.28 – 13.30  Shin-ichi Fujisaka, Hamamatsu Photonics, Japan
A clinical tissue oximeter using NIR time-resolved spectroscopy

13.30 – 13.32  Terence Leung, UCL, UK
Evaluation of limb tissue oxygenation at different elevation angles and their responses to local warming using a hybrid microwave-optical thermoregulation monitor

13.32 – 13.34  Larisa Safonova, Bauman Moscow State Technical University, Russia
Expansion of functional possibilities of tissue oximeters based on continuous wave measurements

13.34 – 13.36  Larisa Safonova, Bauman Moscow State Technical University, Russia
Bioadequate electromagnetic therapy efficiency estimation using tissue oximetry
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<th>Time</th>
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<td>13.36 – 13.38</td>
<td>Peng Cheng Li, Huazhong University of Science and Technology, China</td>
<td>Real-time Imaging of microcirculation using laser speckle: from basic to pre-clinic studies</td>
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<td>13.38 – 13.40</td>
<td>R. Hoshikawa, University of Electro-Communications Tokyo, Japan</td>
<td>Two-dimensional velocity imaging of cortical surface vasculature in the anesthetized mouse brains exposed to chronic hypoxia</td>
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<td>13.40 – 13.42</td>
<td>Qingming Luo, Huazhong University of Science and Technology, China</td>
<td>Visualizing a Mouse Brainwide Vascular Configuration and Coupling with Neuronal Networks at Sub-micron Resolution</td>
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**Lunch Time Seminar**

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<td>13:45 – 14:15</td>
<td>Atsushi Maki, Hitachi High-Tech, Japan</td>
<td>Evolution of optical topography - Neuroimaging to go</td>
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<tr>
<td>13.45 – 15.00</td>
<td>Lunch and poster viewing and poster viewing</td>
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<td>After 15.00</td>
<td>Free afternoon</td>
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Wednesday 2\textsuperscript{nd} July

**Session: Critical Care Adult (II)**

8.00 – 8.45  
Can Ince, Erasmus Un. of Rotterdam, the Netherlands – Keynote Talk  
The enigma of oxygen transport in critical care medicine

**Session: Blood Substitutes (I)**

8.45 – 9.15  
Abdu Alayash, Food and Drug Administration, USA – Plenary Talk  
Blood substitutes: why haven't we been more successful?

9.15 – 9.45  
Peter Keipert, Keipert Corp. Consulting, USA – Plenary Talk  
Clinical evaluation of MP4OX, an oxygen therapeutic agent and adjunct to resuscitation of severe hemorrhagic shock in trauma

9.45 – 10.00  
Billy Sze-Hang Lau, New A Innovation Limited, Hong Kong  
Dose-effects: hemodynamics, biochemical and tissue oxygen effects of a novel stabilized hemoglobin-based oxygen formulation (OC99); model of controlled severe oxygen debt via hemorrhagic shock and fluid volume

10.00 – 10.15  
Frank Zal, HEMARINA SA, France  
Supplementation of kidney machine perfusion with a new oxygen carrier to improve renal graft performance in a DCD porcine model

10.15 – 10.30  
Leif Bülow, Lund University, Sweden  
Hemoglobin-based blood substitutes (HBOCs) based on fetal hemoglobin

10.30 – 10.45  
Gary Silkstone, University of Essex, UK  
Modification of tyrosine electron transfer pathways in haemoglobin is protective against lipid oxidation

**Poster flash presentations**

10.45 – 10.47  
Darren Scroggie, UCL Medical School, UK  
Provision of oxygen for metabolic support of encapsulated liver cells during storage at ambient temperature using a perfluorocarbon

10.47 – 10.49  
Frank Zal, HEMARINA SA, France  
HEMO\textsubscript{2}Life\textsuperscript{®}, a natural oxygen transporter, improves donor heart preservation during prolonged storage

10.49 – 10.51  
Gary Silkstone, University of Essex, UK  
The βLys66Tyr variant of haemoglobin as a component of a blood substitute

10.51 – 11.20  
Coffee break and poster viewing
**Session: Critical Care Neonatal (I)**

11.20 – 11.35  **T. Goos, Erasmus Medical Center, the Netherlands**
Cerebral hypoxia during the postnatal transition of very preterm infants directly after delivery by cesarean section

11.35 – 11.50  **Berndt Urlesberger, Medical University Graz, Austria**
Even mild respiratory distress alters tissue oxygenation significantly in preterm infants during neonatal transition

**Poster flash presentations**

11.50 – 11.52  **Berndt Urlesberger, Medical University Graz, Austria**
Regional cerebral oxygen saturation during neonatal transition: Is there an influence of gender?

11.52 – 11.54  **Nariae Baik, Medical University of Graz, Austria**
Do sustained lung inflations affect cerebral regional oxygen saturation in preterm infants?

11.54 – 11.56  **John Klaessens, VU Uni. Medical Center Amsterdam, the Netherlands**
Non-contact monitoring of vital signs: results of clinical measurements at a neonatal intensive care

11.56 – 11.58  **Noriya Hirose, Nihon University School of Medicine, Japan**
Oxygen supplementation is effective to attenuate the maternal cerebral blood deoxygenation after spinal anesthesia for cesarean section

11.58 – 12.00  **Yuko Kondo, Nihon University School of Medicine, Japan**
Changes in cerebral blood flow and oxygenation during induction of general anesthesia with sevoflurane or propofol

12.00 – 14.00  **Lunch and poster viewing**

**Lunch Time Discussion Session: The future of Blood Substitutes**

13.00 – 14.00  including contributions from

**A. Abuchowski, Prolong Pharmaceuticals, USA**
PEGylated carboxyhemoglobin bovine (Sanguinate™): results of clinical Safety testing and use in patients

**George Biro, University of Ottawa, Canada**
What can be learned from HBOC trial failures?

**Hiromi Sakai, Nara Medical University, Japan**
Hemoglobin-vesicles for transfusion alternative and oxygen therapeutics

**Session: Critical Care Neonatal (II)**

14.00 – 14.15  **Harsimrat Singh, UCL, UK**
Cerebrovascular interactions in the neonatal brain during seizures
14.15 – 14.30  Gemma Bale, UCL, UK
In-vivo measurements of cerebral changes in cytochrome-c-oxidase using broadband near-infrared spectroscopy in neonates

14.30 – 14.45  Alexander Caicedo, Catholic University Leuven, Belgium
A new framework for the assessment of cerebral hemodynamic regulation in neonates using NIRS

14.45 – 15.00  Felix Scholkmann, University Hospital Zurich, Switzerland
Characterizing fluctuations of arterial and cerebral tissue oxygenation in preterm neonates by means of data analysis techniques for nonlinear dynamical systems

15.00 – 15.30  Tea Break and poster viewing

**Session: Critical Care Neonatal (III)**

15.30 – 15.45  Martin Wolf, University Hospital Zurich, Switzerland
Can the assessment of spontaneous oscillations by near infrared spectroscopy predict neurological outcome of preterm infants?

15.45 – 16.00  Terence Leung, UCL, UK
Investigation of the relationship between the sclera colour of the eye and the serum bilirubin level in newborn infants

16.00 – 16.15  Nariae Baik, Medical University of Graz, Austria
Influence of persistent foramen ovale (PFO) on regional cerebral oxygen saturation during immediate neonatal transition

16.15 – 16.30  Justin Skowno, The Children’s Hospital, Sidney, Australia
Transcutaneous near infrared spectroscopy to detect severe hepatic ischaemia in a porcine model

16.30 – 17.30  Annual General Meeting

From 19.00  River Cruise Banquet