What's on today?

08.45 **Symposia**
All Lecture Theatres
Pages 87–92

12.30 **Michael de Burgh Daly Prize Lecture**
Lecture Theatre 1 – *University Museum of Natural History*
Page 14

14.30 **Oral Communications C73–C108**
All Lecture Theatres
Pages 93–98

16.00 **Poster Communications PC247–PC361**
Marquee behind University Club
Pages 99–112

Thursday 14 July

Gordon Drummond, Senior Statistics Editor for *The Journal of Physiology*, is publishing a series of editorials on best practice in statistical reporting. Visit him at his poster near *The Journal of Physiology*'s stand, in the Marquee, to find out more.

Presenting and analysing data: reasons to be improved

G. B. Drummond

Department of Anaesthesia and Pain Medicine, University of Edinburgh, UK
Senior Statistical Editor, *The Journal of Physiology*

The standard of data presentation and data analysis in most biological journals leaves a lot to be desired. I recently reviewed a systematic sample of articles from one volume of *The Journal of Physiology*. None of the articles surveyed was faultless in study design, data presentation, or statistical analysis. Frequent faults included absent power/sample size calculations, no justification of sample size, not considering pairing or repeated measures, no adjustments for multiple testing, no justification of statistical methods used, no verification that assumptions implicit in the data analysis were met, not using dot plots to display raw data when small samples were used, and not reporting the numbers of observations for analyses. These observations support those of others.(1)

The current guidance for authors submitting material to *The Journal of Physiology* is restricted to gentle advice. This will not generate improvement in statistical standards. Authors will continue doing what they, and others, have done before unless we provide more didactic statements, a checklist of requirements, and impose zero tolerance of poor practice. A major problem is that "Classical" statistical testing is based on a process that is logical but tortuous and often not well suited to the studies that are reported in *The Journal*. Many of the studies reported in *J Physiol* are so small that the individual data could easily be plotted, and assessed visually. Leniency of this sort reduces the worry that more stringent criteria will deter submissions from those who have not learned to love statistics. Many editors and indeed referees have no greater skill in statistics than the authors. A universal checklist will allow editors to write their reports more easily, and provide rapid and helpful suggestions to authors who are struggling with their data presentation. "Show the data" is the best first step.

The Journal intends to introduce new recommendations, with better guidance on data presentation and statistical analysis for *Journal* contributors. We shall publish a series of short, bite sized articles, presenting the material in palatable and easily assimilated mouthfuls. These will then form the basis of a new series of recommendations for authors. This poster describes the process so far.

Ensuring the application of these standards rests with the editors and referees; and these articles are as much required reading for them. It will be necessary to avoid sustaining old habits and reinforcing errors: repeated presentation of the standards expected and reminders of these elementary errors will be needed.

Reference

1. Kilkenny C, Browne WJ, Cuthill IC, et al. Improving bioscience research reporting: the ARRIVE guidelines for reporting animal research. PLoS Biol 2010;8:e1000412.

Intracellular calcium and cardiac arrhythmias

Cardiac & Respiratory Physiology

Thursday 14 July 2011

***LT1** (University Museum of Natural History)*

Organised by David Eisner and Luigi Venetucci, *University of Manchester, UK*

08.45	Welcome and introduction by the organisers
09.00 SA70	**Critical factors controlling spontaneous SR Ca release in isolated ventricular cardiomyocytes** Godfrey Smith, *University of Glasgow, UK*
09.30 SA71	**Role of CaMKII in hypertrophy and heart failure** Lars Maier, *Georg-August-Universitaet Göttingen, Germany*
10.00	**Ca handling in persistent atrial fibrillation** Karin Sipido, *Katholieke Universiteit, Leuven, Belgium*
10.30	Refreshments in the Marquee behind University Club
11.15	**Cardiac electrical remodeling in arrhythmogenesis** David Rosenbaum, *Case Western Reserve University, Cleveland, USA*
11.45 SA72	**Calcium handling abnormalities in inherited arrhythmias** Silvia Priori, *Fondazione Salvatore Maugeri, Pavia, Italy*

Symposium

CR

Today's Cardiac & Respiratory Physiology Oral Communications will be held in this lecture theatre from 14.30, see page 93

For details of the Lecture Theatres, see page 8

Smooth muscle remodeling: Perspectives and mechanisms

Vascular & Smooth Muscle Physiology

Thursday 14 July 2011

Sponsored by DMT

***LT2** (Experimental Psychology A)*

Organised by Iain Greenwood, *St George's University of London, UK*, and Rachel Tribe, *King's College London, UK*

08.45	Welcome and introduction by the organisers
09.00 SA73	**Integrins and vascular remodeling – Insights using atomic force microscopy** Gerald A Meininger, *University of Missouri, Columbia, USA*
09.30 SA74	**Apoptosis and spiral artery remodelling** Guy Whitley, *St George's, University of London, UK*
10.00 SA75	**Cytoskeletal mechanisms in airway smooth muscle remodeling** Susan Gunst, *Indiana University School of Medicine, USA*
10.30	Refreshments in the Marquee behind University Club
11.15 SA76	**Role of ion channels in smooth muscle remodeling** M Theresa Perez-Garcia, *Universidad de Valladolid, Spain*
11.45 SA77	**Role of stretch in vascular smooth muscle remodelling** Per Hellstrand, *Lund University, Sweden*

Symposium

VS

Today's Vascular & Smooth Muscle Physiology Oral Communications will be held in this lecture theatre from 14.30, see page 94

For details of the Lecture Theatres, see page 8

Cellular and integrative functions of purines

Cellular & Integrative Neuroscience

Thursday 14 July 2011

***LT3** (Large lecture theatre Sherrington Building)*

Organised by Bruno Frenguelli and Mark Wall, *University of Warwick, UK*

08.45	Welcome and introduction by the organisers
09.00 SA78	**A role for purinergic signalling in adult neurogenesis** Herbert Zimmermann, *Goethe-Universität, Frankfurt, Germany*
09.30 SA79	**Modulation of hippocampal synaptic plasticity by adenosine A2A receptors** Ana Maria Sebastião, *University of Lisbon, Portugal*
10.00 SA80	**Painful P2X3 receptors** Peter Illes, *Universität Leipzig, Germany*
10.30	Refreshments in the Marquee behind University Club
11.15 SA81	**Role for ATP receptors in glia-neuron communication** Yuriy Pankratov, *University of Warwick, UK*
11.45 SA82	**Using optogenetics to study astrocytic purinergic signalling in the brainstem** Sergey Kasparov, *University of Bristol, UK*

Today's Cellular & Integrative Neuroscience Oral Communications will be held in this lecture theatre from 14.30, see page 95

For details of the Lecture Theatres, see page 8

Epithelial transport during infection and inflammation

Epithelia & Membrane Transport

Thursday 14 July 2011

***LT4** (Pharmacology lecture theatre)*

Sponsored by Cystic Fibrosis Foundation (USA) and Cystic Fibrosis Canada

Organised by John Hanrahan, *University, Montreal, Canada*, and Deborah Baines, *St George's University of London, UK*

08.45	Welcome and introduction by the organisers
09.00 SA83	**Regulation of sodium transport and pro-inflammatory cytokine secretion by the stress-activated metabolic sensor AMP-activated protein kinase in human bronchial epithelial cells** Ken Hallows, *University of Pittsburgh, USA*
09.30 SA84	**Role of cytokines in controlling gene expression and sodium transport in airway and alveolar epithelial cells; implications for cystic fibrosis and pulmonary edema** Yves Berthiaume, *Universite de Montréal, Canada*
10.00 SA85	**Inflammation, infection and airway glucose homeostasis** Emma Baker, *St George's University of London, UK*
10.30	Refreshments in the Marquee behind University Club
11.15 SA86	**Molecular mechanisms of intestinal epithelial tight junction regulation** Jerrold Turner, *University of Chicago, USA*
11.45 SA87	**Role of wtCFTR in airway epithelial inflammatory responses to bacterial exoproducts** Terry Machen, *University of California, Berkeley, USA*

Symposium

EM

Today's Epithelia & Membrane Transport Oral Communications will be held in this lecture theatre from 14.30, see page 96

For details of the Lecture Theatres, see page 8

Neuro-endocrine-immune interactions in reproduction

Metabolism & Endocrinology

Thursday 14 July 2011

LT5 (Lecture theatre Le Gros Clark)

Organised by Alison Douglas, *University of Edinburgh, UK*, and Petra C Arck, *McMaster University, Hamilton, Canada*

08.45	Welcome and introduction by the organisers
09.00 SA88	**Prenatal determinants of children's health** Petra C Arck, *McMaster University, Hamilton, Canada*
09.30 SA89	**CRH, urocortins and inflammation in human placenta** Chiara Voltolini, *University of Sienna, Italy*
10.00 SA90	**Maternal neuroendocrine-immune responses to stress in early pregnancy** Alison J Douglas, *University of Edinburgh, UK*
10.30	Refreshments in the Marquee behind University Club
11.15 SA91	**Stress, CRH and cytokines in childhood/adolescence and concurrent or later disorders** George Chrousos, *Athens University Medical School, Greece*
11.45 SA92	**Early life stress and reproductive dysfunction** Kevin O'Byrne, *Kings College London, UK*

Symposium

ME

Today's Metabolism & Endocrinology Oral Communications will be held in this lecture theatre from 14.30, see page 97

For details of the Lecture Theatres, see page 8

Developments in chronic obstructive pulmonary disease, and challenges for future research

Human & Exercise Physiology

Thursday 14 July 2011

***LT6** (Experimental Psychology B)*

Organised by Mary Morrell, *Imperial College London, UK*, and Ken O'Halloran, *University College Dublin, RoI*

08.45	Welcome and introduction by the organisers
09.00 SA93	**The effects of chronic sustained and intermittent hypoxia on muscle physiology** Ken O'Halloran, *University College Dublin, RoI*
09.30 SA94	**Chronic obstructive pulmonary disease as a systemic disease: a skeletal muscle perspective** Paul Greenhaff, *University of Nottingham, UK*
10.00 SA95	**Respiratory muscle function and training in patients with COPD** Alison McConnell, *Brunel University, Uxbridge, UK*
10.30	Refreshments in the Marquee behind University Club
11.15 SA96	**Effects of iron on the pulmonary circulation: a therapeutic role in COPD?** Annabel Nickol, *University of Oxford, UK*
11.45 SA97	**When obesity and COPD collide: Physiological and clinical consequences** Denis O'Donnell, *Queen's University, Kingston, Canada*

Symposium

HE

Today's Human & Exercise Physiology Oral Communications will be held in this lecture theatre from 14.30, see page 98

For details of the Lecture Theatres, see page 8

Oral Communications

Cardiac & Respiratory Physiology

Thursday 14 July 2011

LT1 (University Museum of Natural History)

The names below are the presenting authors, for a full list of authors see the abstract

C73	*14.30*	**Alveolar epithelial CNGA1 channels mediate cGMP-stimulated, amiloride-insensitive lung liquid absorption** William Wilkinson
C74	*14.45*	**The effect of ageing on the control of breathing: a role for the development of obstructive sleep apnoea** Keith Pugh
C75	*15.00*	**Interrelationship between conduction velocity, intracellular Ca^{2+} and gap junction resistance in ventricular myocardium** Rita Jabr
C76	*15.15*	**Mapping of cardiac activation with electrode arrays of monophasic action potential *in vivo* and *in vitro*** Zhigang Shui
C77	*15.30*	**Integrated assessment of cardiac contractility and calcium/calmodulin protein kinase II delta expression and activity following acute and chronic isoprenaline administration** Laura Mooney
C78	*15.45*	**Acute elevations in extracellular glucose confer a mild cardioprotective effect to isolated ventricular myocytes** Richard Rainbow

Today's Cardiac & Respiratory Physiology Poster Communications will be held in the Marquee behind University Club from 16.00, see page 99

CR

For details of the Lecture Theatres, see page 8

Oral Communications

Vascular & Smooth Muscle Physiology

Thursday 14 July 2011

LT2 (Experimental Psychology A)

The names below are the presenting authors, for a full list of authors see the abstract

C79	*14.30*	**Arterial stent intimal hyperplasia: role of hypoxia and blood-wall oxygen transport** Colin Caro
C80	*14.45*	**Mechanism of hydrogen sulphide mediated contraction in rat small pulmonary arteries** Philip Aaronson
C81	*15.00*	**Protein kinase C delta isoform shRNA plasmid construct restores vascular disorders in spontaneously hypertensive rats** Tatiana Novokhatska
C82	*15.15*	**Inhibition of HDAC8 and acetylation of Hsp20 regulates contractile activity of human myometrial smooth muscle** Magdalena Karolczak-Bayatti
C83	*15.30*	**The role of smooth muscle K^+ channels in conducted hyperpolarization** Timea Beleznai
C84	*15.45*	**Isolated perfused pig bladder: a novel experimental approach for the study of whole organ physiology in large animals** Bahareh Vahabi

VS

Today's Vascular & Smooth Muscle Physiology Poster Communications will be held in the Marquee behind University Club from 16.00, see page 110

For details of the Lecture Theatres, see page 8

Oral Communications

Cellular & Integrative Neuroscience

Thursday 14 July 2011

LT3 (Large lecture theatre Sherrington Building)

The names below are the presenting authors, for a full list of authors see the abstract

C85	*14.30*	**Evidence of a role for astrocyte purinergic signalling in regulation of extracellular potassium and action potential propagation in central nervous system white matter** Virginia Bay
C86	*14.45*	**Human embryonic stem cell derived functional astrocytes are neuroprotective through glutathione dependent and independent mechanisms** Kunal Gupta
C87	*15.00*	**Are astroglial G_q-protein coupled receptors functionally relevant?** Samantha Lane
C88	*15.15*	**Differential control of striatal inhibition by histamine** Tommas Ellender
C89	*15.30*	**Investigating glycine-activated currents in rat substantia nigra neurones** James Hallett
C90	*15.45*	**Electrophysiological deficits at GABAergic synapses on Purkinje cells of the dystrophin-deficient mdx mouse: possible implications for Duchenne Muscular Dystrophy** Stewart Head

Today's Cellular & Integrative Neuroscience Poster Communications will be held in the Marquee behind University Club from 16.00, see page 103

For details of the Lecture Theatres, see page 8

Oral Communications

Epithelia & Membrane Transport

Thursday 14 July 2011

LT4 (Pharmacology lecture theatre)

The names below are the presenting authors, for a full list of authors see the abstract

C91	*14.30*	**TRPM7 cation channel is overexpressed in human pancreatic ductal adenocarcinoma and is required for cancer cell migration** Pierre Rybarczyk
C92	*14.45*	**The effect of inflammation on human airway epithelial glucose transport and GLUT transporter expression** James Garnett
C93	*15.00*	**Non-genomic estrogen regulation of airway surface liquid height in normal and cystic fibrosis bronchial epithelia** Vinciane Saint-Criq
C94	*15.15*	**Genetic inactivation of the KCNN4 K^+ channel protects from lethality in a cystic fibrosis mouse model** Carlos Flores
C95	*15.30*	**Loss of DRA expression results in severely decreased murine colonic HCO3- secretion, low surface pH, disturbed mucus barrier, signs of colonic mucosal inflammation, and increased susceptibility to DSS-induced injury** Ursula Seidler
C96	*15.45*	**Renal cyst fluid from human polycystic kidney disease patients stimulates Cl^- secretion: Characterization of the active factor and target channels** Bonnie Blazer-Yost

EM

Today's Epithelia & Membrane Transport Poster Communications will be held in the Marquee behind University Club from 16.00, see page 105

For details of the Lecture Theatres, see page 8

Oral Communications

Metabolism & Endocrinology

Thursday 14 July 2011

LT5 (Lecture theatre Le Gros Clark)

The names below are the presenting authors, for a full list of authors see the abstract

C97	*14.30*	**Placental sirtuin 1 (SIRT-1) and mammalian target of rapamicyn (mTOR) in the Preobe Study: a protective response for the fetus against the adverse outcomes of maternal obesity?** Jole Martino
C98	*14.45*	**Glycaemic response and insulin sensitivity during the menstrual cycle in women** Sarah Hillier
C99	*15.00*	**The role of Annexin A1 in the manifestation of sexual dimorphisms in murine cerebral and systemic inflammatory responses to endotoxin** Ellen Hughes
C100	*15.15*	**Glucocorticoid-induced changes in liver metabolism during mouse pregnancy** Juanita Jellyman
C101	*15.30*	**Hypothalamic mechanisms mediating inhibition of prolactin secretion following stress in early pregnant mice** Victoria Parker
C102	*15.45*	**Acetylsalicylic acid impairs early renal development in cultured embryonic metanephros through a COX-independent mechanism** Angela Carvalho

Today's Metabolism & Endocrinology Poster Communications will be held in the Marquee behind University Club from 16.00, see page 109

ME

For details of the Lecture Theatres, see page 8

Oral Communications

Human & Exercise Physiology

Thursday 14 July 2011

LT6 (Experimental Psychology B)

The names below are the presenting authors, for a full list of authors see the abstract

C103 *14.30* **Skeletal muscle deoxygenation during respiratory fatigue in heart failure**
Antonio Nobrega

C104 *14.45* **Dietary nitrate supplementation reduces muscle metabolic perturbation and improves exercise tolerance in hypoxia**
Anni Vanhatalo

C105 *15.00* **The effects of prolonged hypobaric hypoxia on voluntary control of muscle in humans**
Emma Ross

C106 *15.15* **Chronic Epo deficit induces exercise performance decrease and massive muscle proteolysis in running mouse**
Laurence Mille-Hamard

C107 *15.30* **The effect of short duration high intensity interval exercise on postprandial lipaemia and soluble adhesion molecules**
Brendan Gabriel

C108 *15.45* **Human *in vivo* tendon adaptations to resistance training & detraining at different muscle lengths**
Gerard McMahon

HE

Today's Human & Exercise Physiology Poster Communications will be held in the Marquee behind University Club from 16.00, see page 107

For details of the Lecture Theatres, see page 8

Poster Communications

Cardiac & Respiratory Physiology

Thursday 14 July 2011

Marquee behind University Club

The names below are the presenting authors, for a full list of authors see the abstract

PC247 **Calcium stimulated adenylyl cyclase modulates ion channel currents in the guinea-pig atrioventricular node**
Kathryn Yuill

PC248 **Elevated extracellular glucose markedly attenuates ischaemic preconditioning in cardiac ventricular myocytes**
Mark Sims

PC249 **Effects of physiological parameter variation in a computational rabbit ventricular cell model**
Philip Gemmell

PC250 **The energetics of cardiac trabeculae undergoing quasi-realistic work-loops**
Denis Loiselle

PC251 **Computer simulation of human atrial fibrillation due to S140G and V141M mutations of the K_v7.1 gene**
Sanjay Kharche

PC252 **Mechanical and electrical effects of superoxide donor menadione in rat myocardium are associated with increased diastolic intracellular Ca^{2+}**
Ed White

PC253 **Effects of anandamide on electrical activity and contraction in guinea pig cardiac ventricular myocytes**
Emma Bolton

Continued on the next page

CR

Find out about the next Cardiac & Respiratory Physiology meeting on page 132

For details of the Lecture Theatres, see page 8

PC254 **The effect of inorganic phosphate on mitochondrial Ca^{2+} dynamics in single permeabilized ventricular myocytes of rat**
Chae Hun Leem

PC255 **Is SERCA overexpression anti- or pro-arrhythmic?**
Thomas Collins

PC256 **STED microscopy reveals secondary RyR cluster morphology**
Niall MacQuaide

PC257 **Can stimulation frequency modulate Ca^{2+} handling of sheep atrial myocytes?**
Daniel Wrigley

PC258 **Impact of in-utero and postnatal exposure to a high fat nutritional environment on clock and clock-controlled genes in murine hearts**
Aaron Stokes

PC259 **Telethonin regulates transverse (t)-tubule structure and Ca^{2+} induced Ca^{2+} release (CICR) in mouse ventricular myocytes**
Michael Ibrahim

PC260 **Human aging and heart rate variability, psychomotor speed and neurodynamic characteristics in rowers**
Oleg Dranitsin

PC261 **Relationship between seismocardiography and echocardiography for measuring cardiac cycle timing events**
J. Patrick Neary

PC262 **Location of the tetraalkyl ammonium (TAA) blocking site in the mouse cardiac ryanodine receptor (mRyR2)**
Sammy Mason

PC263 **Mice expressing a human K_{ATP} channel mutation have altered channel ATP sensitivity, but no cardiac abnormalities**
Roope Mannikko

PC264 **Identification of gating mutations in the TREK-1 K2P potassium channel by functional complementation in K+ uptake deficient yeast**
Chetan Sharma

Find out about the next Cardiac & Respiratory Physiology meeting on page 132

For details of the Lecture Theatres, see page 8

PC265 **Simulation analysis of Ca^{2+}-dependent inhibition dynamics of L-type Ca^{2+} current of pulmonary vein cardiomyocytes of rabbit**
Hyeon Sung Baek

PC266 **Preventive effect of mitochondrial substrates and calmodulin on L-type Ca^{2+} current in atrial cardiac myocytes of rabbit**
Hyun-A Kim

PC267 **Characterization of a TRPM7-like cation current in human atrial cardiomyocytes**
Irma Martisiene

PC268 **The solution structure of the EAG domain of hERG channels provides insight into the molecular basis for slow deactivation gating**
John Mitcheson

PC269 **Coupling of the Voltage Sensing Domain to the Pore Domain in the hERG K^+ Potassium Channel**
Steven Thomson

PC270 **Description of the gating behaviour of purified human cardiac ryanodine receptor (hRyR2) by kinetic modelling and burst analysis under minimal conditions**
Saptarshi Mukherjee

PC271 **Studies on IKr channel blockade in human cardiomyocytes as a cause of arrhythmias**
Hussein Rubaiy

PC272 **IP_3 sensitive, Ca^{2+}-dependent oscillating currents in cardiac myocytes of pulmonary vein of rabbit**
Jeong Hoon Kwon

PC273 **L-type calcium modulates the pro-arrhythmic response to dofetilide in human: a simulation study**
Nejib Zemzemi

PC274 **The sGC activator BAY58-2667 protects against sterile inflammatory shock in mice**
Benjamin Vandendriessche

Continued on the next page

Find out about the next Cardiac & Respiratory Physiology meeting on page 132

PC275 **Chronic intermittent hypoxia-induced respiratory muscle fatigue is mediated by reactive oxygen species**
Christine Shortt

PC276 **Maternal fructose and/or salt consumption programs cardiovascular hypersensitivity in the offspring**
David Gardner

PC277 **The impact of NAD(P)H oxidase on the regulation of renal hemodynamics**
Hayder Shabana

PC278 **Bradykinin mediated activation of sensory nerves in the kidney: impact on contra-lateral kidney function.**
Elaine Barry

PC279 **The role of Angiotensin (1-7) in the regulation of renal haemodynamics**
Julie O Neill

PC280 **Chronic intermittent hypoxia induces respiratory muscle weakness in neonatal rats which persists into early adult life.**
Ruth O'Connell

PC281 **Protective effect of hypercapnia on warm ischemia induced free radical damage of lungs retrieved from non-heart-beating donors**
Daniel Hodyc

PC283 **Overnight changes in neck circumference and pharyngeal calibre in heart failure patients with obstructive sleep apnoea**
Tom Carlisle

PC284 **The asthma associated cytokines IL-13 and TGFβ synergistically increase expression of TRPC6 in human airway smooth muscle**
Charmaine Ribeiro

PC285 **The long acting beta agonist formoterol and the cAMP raising agent forskolin both cause reduced expression of SERCA2 in human airway smooth muscle cells**
Oluwaseun Ojo

Poster Communications

Cellular & Integrative Neuroscience

Thursday 14 July 2011

Marquee behind University Club

The names below are the presenting authors, for a full list of authors see the abstract

PC286 **Use of burst analysis and agonist concentration jumps to investigate the properties of di- and tri-heteromeric NMDA receptors in dopaminergic neurons of neonatal rat substantia nigra**
Qian Zhao

PC287 **Functional characterisation of mutations in the TRESK K2P K^+ channel (KCNK18) associated with common migraine.**
Isabelle Andres-Enguix

PC288 **Impact of ischemic preconditioning on excitatory postsynaptic current (EPSC) and AMPA / kainate-activated currents in primary cortical neurons**
Samaneh Maysami

PC289 **Characterisation and pharmacological activation by bithionol of human SLO2.2A K^+ channels**
David Wrighton

PC290 **Effects of hyperthermia on neurogenesis and neurobehavior in the young male rat**
Bayram Yilmaz

PC291 **Effects of prenatal hypoxia-ischemic in the motor behavior and cardiovascular system**
Ive Sab

PC292 **Measuring the dynamics of retino-collicular map formation in the mouse**
Daniel Lyngholm

Continued on the next page

Find out about the new Editor-in-Chief's plans for neuroscience in *The Journal of Physiology* on page 123

For details of the Lecture Theatres, see page 8

PC293 **Oxytocin alters spike activity in oxytocin neurons**
Richard Dyball

PC294 **Nitric Oxide (NO) modulates the excitability of magnocellular neurons of the Supraoptic Nucleus (SON) during changes in plasma osmolality**
Melina da Silva

PC295 **The timing of antisaccades**
Imran Noorani

PC296 **The effect of coil type and navigation on the reliability of transcranial magnetic stimulation**
Melanie Fleming

PC297 **Human tremor size reduces with ischaemia due to decreased EMG to muscle gain**
Carlijn Vernooij

PC298 **Descending pathways influence sensitization of reflex responses in the rat**
Katharine Dobson

PC299 **Saccadic latency and information foraging**
Sara Hänzi

PC300 **Effects of chelates of gadolinium on intracellular calcium concentrations in isolated rat dorsal root ganglia neurons**
Haluk Kelestimur

PC301 **Possible nerve inflammation in patients with diffuse chronic pain syndromes**
Andrew Dilley

PC302 **CCL2 excites a subgroup of inflamed C-fibre axons in the rat**
Natalie Richards

PC303 **The gap junction opener trimethylamine enhances characteristics of network based activity within nociceptive dorsal horn**
Chris Kay

PC304 **Selective decline in slowly adapting type I mechanoreceptors during development in rat sinus hair follicles *in vitro***
Peter Cahusac

For details of the Lecture Theatres, see page 8

Poster Communications

Epithelia & Membrane Transport

Thursday 14 July 2011

Marquee behind University Club

The names below are the presenting authors, for a full list of authors see the abstract

PC305 **L-Arginine-nitric oxide pathway and possible implications for cardiovascular disease in depressive patients**
Tatiana Brunini

PC306 **X-ray crystal structure of a prokaryotic inwardly-rectifying (KirBac) potassium channel reveals the mechanism of channel opening at the bundle-crossing gate.**
Stephen Tucker

PC307 **Functional regulation of transient receptor potential vanilloid type(TRPV) 6 channel by extracellular pH**
Byung Yeh

PC308 **Protein Kinase A (PKA) is central for the forward transport of two-pore domain K^+ channels $K_{2P}3.1$ and $K_{2P}9.1$**
Alexandra Mant

PC309 **Correction of the cystic fibrosis transmembrane conductance regulator in cystic fibrosis epithelial cells using zinc finger nuclease homology-directed repair**
Jennifer Hollywood

PC310 **Oscillatory changes of intracellular chloride concentration during cell cycle progression in SiHa cells**
Wei-Chun Wei

PC311 **P2X subunits expression in mouse Leydig cells at different ages**
Ligia Antonio

Continued on the next page

Find out about the next Epithelia & Membrane Transport meeting on page 128

EM

For details of the Lecture Theatres, see page 8

PC312 **Epidermal growth factor-driven expression of a TTX-sensitive voltage-gated sodium channel potentiates human non-small cell lung cancer invasion via elevation of intracellular sodium concentration**
Tom Campbell

PC313 **Modulation of TRPM3 cation channel by intacellular Ca^{2+}**
Victoria Seymour

PC314 **Characterisation of a chloride conductance in canine chondrocytes**
Rebecca Lewis

PC315 **Prenatal exposure of pregnant rats to cigarette smoke and nicotine: effect on nitric oxide and fasting glycemia in treated and untreated neonates with vitamin C**
Ibukun Oyeyipo

PC316 **Cytokine regulation of natural antimicrobial peptide expression in cultured human vaginal epithelial and endocervical cells**
Rachel Tribe

PC317 **Mirror-like SeSAME/EAST renal phenotype in mice lacking the Kir5.1 (Kcnj16) K^+ channel subunit**
Stephen Tucker

PC318 **Regulation of the epithelial sodium channel (ENaC) by norepinephrine in cultured mouse renal collecting duct cells**
Morag Mansley

EM

Find out about the next Epithelia & Membrane Transport meeting on page 128

For details of the Lecture Theatres, see page 8

Poster Communications

Human & Exercise Physiology

Thursday 14 July 2011

Marquee behind University Club

The names below are the presenting authors, for a full list of authors see the abstract

PC319 **Quality of life in children with type 1 diabetes in Kuwait**
Fatemah Alotaibi

PC320 **The effect of a health enhancing physical activity programme on transient ischaemic attack and non-disabling stroke: The methodological design of a randomised controlled pilot trial**
James Faulkner

PC321 **Improvement in neurocognitive function: disassociating habituation from treatment effects**
Chris Marley

PC322 **Comparison of haemodynamics and metaboreflex sensitivity between high intensity interval and constant aerobic exercise in prehypertensive individuals**
Jae Seung Chang

PC323 **Functional involvement of the calmodulin/inositol 1,4,5-trisphosphate receptor-binding region of TRPC6 in human platelets**
José López

PC324 **Thapsigargin and the diacylglycerol analogue 1-oleoyl-2-acetyl-sn-glycerol differentially regulate the association between Orai and STIM proteins in human platelets**
Letizia Albarrán

PC325 **Three nights of sleep restriction impairs forearm skin microvascular reactivity in young healthy males**
Jonathan Moore

Continued on the next page

Find out about the next Human & Exercise Physiology meeting on page 129

For details of the Lecture Theatres, see page 8

PC326 **Temperature effects on muscle force in pre- and post-menopausal women.**
Julie Bieles

PC327 **Artificially aged skeletal myoblasts display reduced regeneration in bio-engineered skeletal muscle**
Adam Sharples

PC328 **Intracellular calcium and phosphate in intact muscle stimulated to fatigue in the anaesthetised mouse**
David Allen

PC330 **Kinetic control of oxygen consumption in single *Xenopus laevis* skeletal muscle fibres is not first-order**
Rob Wüst

PC331 **TNF-α inhibits amino acid uptake and activation of the MAPK pathway in isolated intact mammalian skeletal muscle fibres through a COX-dependent pathway**
Mohammed Rashid

PC332 **Dihydrotestosterone (DHT) stimulates amino acid uptake in mouse fast-twitch fibre bundles by increasing the expression and activity of the L-type amino acid transporter (LAT) 2**
Gabriel Mutungi

PC333 **A putative model of endurance exercise using bio-engineered skeletal muscle**
Darren Player

PC334 **Effect of hindlimb suspension on the expressions of neurotrophins in rat soleus muscle**
Tatsuro Hirose

PC335 **Relationship between serum pH and seizure onset following birth asphyxia in the newborn.**
Rachael Delahunty

Poster Communications

Metabolism & Endocrinology

Thursday 14 July 2011

Marquee behind University Club

The names below are the presenting authors, for a full list of authors see the abstract

PC336 **Effects of ghrelin administration on regulation of food intake in arthritic rats.**
Maria Lopez-Menduiña

PC337 **Fenofibrate administration ameliorates the inhibitory effect of adjuvant-arthritis on leptin and adiponectin.**
Ana Belen Gómez-SanMiguel

PC338 **The role of clock genes and clock controlled metabolic genes in the developmental priming of fatty liver disease.**
Kiran Sihota

PC339 **Effect of duration-of-stay at high altitude on plasma hormones and psychological variables**
Meenakshi Sachidhanandam

PC340 **Galanin and different levels of energy requirements on gonadotropins levels in female goats**
Fatemeh Aboutalebi

PC341 **Expression pattern and signalling pathway alterations in the brain concur with the hypermetabolic phenotype of mice lacking G*nasxl*/XLαs**
Katie Burton

PC342 **Impaired kidney function in rats six months after unilateral nephrectomy**
Vlasta Oršić

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ME

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Poster Communications

Vascular & Smooth Muscle Physiology

Thursday 14 July 2011

Marquee behind University Club

The names below are the presenting authors, for a full list of authors see the abstract

PC343 **Tissue-specific responses of human uteroplacental smooth muscles to Ca^{2+}/calmodulin-dependent kinase II inhibition**
Michele Sweeney

PC344 **Reactive oxygen species potentiate vasodilator effect of nitric oxide donor with gold nanoparticles in aortas from renal hypertensive rats**
Bruno Silva

PC345 **Role of Kv1.3 channel in vascular smooth muscle cells proliferation in a porcine model of coronary restenosis**
Pilar Cidad

PC346 **Kv7.4 channels contribute to β-adrenoceptor regulation of rat renal artery**
Friederike Zunke

PC347 **The effects of gestation and agonists on the ability of magnesium to reduce uterine contractility**
Alison McCullough

PC348 **Caveolin-1 knockout reduces the expression of cavin-1, but not flotillins, in murine smooth muscle**
Michael Taggart

PC349 **The Novel Potassium Channel Kir7.1 is a Critical Component of Uterine Quiescence in Mice and Human.**
Conor McCloskey

VS

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PC350 **Effect of high external potassium on spontaneous calcium oscillations in isolated ICC from the rabbit urethra.**
Bernard Drumm

PC351 **Properties of a Na^+ current in freshly dispersed smooth muscle cells from the rabbit airway**
Eamonn Bradley

PC352 **Caveolar disruption with methyl-β-cyclodextrin (MCD) causes endothelium-dependent contraction of rat femoral arteries**
Ashraf Al-Brakati

PC353 **Arterial acetylation of histones is increased by a broad class I/II lysine deacetylase (KDAC) inhibitor but not by a specific KDAC8 antagonist**
Aiqing Chen

PC354 **Comparison of TMEM16A and Best 3 expression and function in murine thoracic aorta.**
Alison Davis

PC355 **Responses of ICC populations in the bladder to electrical field stimulation suggests functional innervation**
Susannah Gray

PC356 **siRNA-mediated knockdown of caveolin-1 protein also reduces expression of cavin-1, but not flotillin-1, in cultured human smooth muscle.**
Michael Taggart

PC357 **Properties of interstitial cells in human uterus**
Helena Parkington

PC358 **Evidence of phosphatidylcholine-specific phospholipase C involvement in hypoxic pulmonary vasoconstriction**
Ievgen Strielkov

PC359 **Ca^{2+}-activated K^+ channels in human fetoplacental arterial smooth muscle cells**
Melissa Brereton

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PC360 **Effect of modulators of the nitric oxide/cGMP pathway on L-type Ca^{2+} current in rabbit corpus cavernosum smooth muscle cells.**
Claire Doyle

PC361 **Caveolae subpopulations in rat aortic smooth muscle**
Caroline Dart

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