



**Department of Physiology
The University of Hong Kong**

Physiology Symposium 2009

Theme

Physiology from Protein Structure to Function

Topics

**Neural Physiology
Respiratory Physiology
Cardiovascular Physiology
Cellular and Molecular Physiology**

**The Elaine G.C.F. Tso Memorial Lecture
*Perry F. Bartlett, FAA***

May 29-30, 2009

**Lecture Theater 1 and Exhibition Area
Cheung Kung Hai Conference Centre
Li Ka Shing Faculty of Medicine
The University of Hong Kong**

Meeting information:

<http://www.hku.hk/physio/>

Welcome Message

The local organizer has the pleasure to welcome you to participate in this exciting meeting hosted by the Department of Physiology, The University of Hong Kong. Following the success in the past meetings, this Symposium has been a forum to facilitate academic interaction with the aim to foster collaborative research among colleagues from the participating universities. Highlights on the Scientific Programme are The Elaine G.C.F. Tso Memorial Lecture, keynote and invited lectures, as well as oral and poster sessions for abstract presentations. We wish you all an enjoyable and fruitful meeting.

Symposium Chair:

CHAN Ying Shing
FUNG Man Lung

Scientific Programme Committee:

CHAN Y.H. Julie, Kaohsiung Veterans General Hospital
LEE Hon Cheung, The University of Hong Kong
TAM S.C. Michael, The Chinese University of Hong Kong
WANG Xian, Peking University

Organizing Committee:

HO Me Lin, Kaohsiung Medical University
KO Wing Hung, The Chinese University of Hong Kong
LU Kwok Tung, National Taiwan Normal University
POON W.F. Paul, National Cheng Kung University
 TSAI S.J. Sean, National Cheng Kung University
YUNG Wing Ho, The Chinese University of Hong Kong

Meeting Information

Date: May 29-30, 2009

Venue: Cheung Kung Hai Conference Centre (Lecture Theatre 1) and
Exhibition Area (Seminar Rooms 1, 2, 3 and Exhibition Room),
Li Ka Shing Faculty of Medicine, The University of Hong Kong,
21 Sassoon Road, Pokfulam, Hong Kong

Official Language: English

Meeting Secretariat:

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Scientific Programme

29th May 2009 (Friday)

8.00 – 8.45 am Registration (*Foyer outside Lecture Theatre*)

8.45 – 9.00 am **Welcoming Remark**
Professor H.C. Lee
Head of Physiology, The University of Hong Kong

Opening Address
Professor Raymond H.S. Liang
President of Hong Kong Academy of Medicine

Symposium I – Physiology from Protein Structure to Function

Chairpersons: Samuel H.H. Chan and Michael S.C. Tam

9.00 – 9.45 am Keynote Lecture (**KL1**)
Professor DING Jianping, Shanghai Institutes for Biological Sciences
Structural and Functional Studies of Tryptophanyl-tRNA Synthetases: Mechanism, Specificity, and Evolutionary Relationship

9.45 – 10.15 am Professor HAO Quan, The University of Hong Kong (**IL1**)
Understanding Protein Function Through Structure

Coffee/Tea break & Poster viewing (Exhibition Area)

11.00 – 11.30 am Professor ZHANG Mingjie, The Hong Kong University of Science and Technology (**IL2**)
Synaptic Signaling Viewed by NMR Spectroscopy and X-ray Crystallography

Symposium II – Cellular and Molecular Physiology

Chairpersons: Y.S. Chan and M.L. Tsai

11.30 – 12.00 nn Professor TANG Ming-Jer, National Cheng Kung University (**IL3**)
Why are Most Organs Soft? Substratum Stiffness Regulates Cell Differentiation

12.00 – 12.30 pm Professor WANG Yun, Peking University (**IL4**)
Regulation of Neuronal Polarity by Protein Kinase D

Group Photo (Fan Pui Garden)

Lunch (Buffet in Exhibition Room)

Symposium III – Neural Physiology

Chairpersons: Y. Wang and W.H. Yung

- 2.00 – 2.30 pm Professor CHAN Samuel H.H., Chang Gung Memorial Hospital -
Kaohsiung Medical Center (**IL5**)
*Brain Stem Death as a Determinant for Resumption of Spontaneous
Circulation After Cardiac Arrest*
- 2.30 – 3.00 pm Professor KE Ya, The Chinese University of Hong Kong (**IL6**)
*L-DOPA Neurotoxicity is Mediated by Up-regulated Expression of
Divalent Metal Transporter 1 Without Iron Response Element (DMT1-
IRE)*
- 3.00 – 3.30 pm Professor WANG Jia-Yi, National Defense Medical Center (**IL7**)
*New Mechanism(s) underlying the Neuroprotective Effects of
Granulocyte-colony Stimulating Factor on Ischemia/reperfusion Injury
in the Brain*

Coffee/Tea break & Poster viewing (Exhibition Area)

Oral Presentation Session – I

Chairpersons: Sandy H.P. Lu and Chun-Wai Ma

- 4.00 – 4.15 pm LU Chun-Wun, National Cheng Kung University (**OP1**)
*Molecular Regulation of Pyruvate Dehydrogenase Kinase 3 by Hypoxia
and its Impact on Metabolic Switch in Cancer Cells*
- 4.15 – 4.30 pm SHEA Graham Ka Hon, The University of Hong Kong (**OP2**)
*Fate Commitment in Bone Marrow Stromal Cell Derived Schwann Cells
is Dependant on Axonal Contact*
- 4.30 – 4.45 pm WONG Christine Siu Ling, The Chinese University of Hong Kong (**OP3**)
*Aging Exaggerates COX-2-mediated Endothelium-dependent
Contractions in Hamster Aortae*

The Elaine G.C.F. Tso Memorial Lecture

Chairperson: Professor Paul K.H. Tam, Pro-Vice-Chancellor (Research)

5.00 – 6.00 pm

Introductory remark

Professor H.C. Lee, Head of Physiology

Gift presentation

Professor S.P. Lee, Dean of Medicine

Lecture

*“Regulation of Neurogenesis in the Hippocampus and
its Importance in Memory and Learning”*

Professor Perry F. Bartlett, FAA
The University of Queensland

Reception (Exhibition Room)

6.45 pm *Bus Transportation to Dinner Venue*
(Main Entrance on Sassoon Road)

7.30 pm *Symposium Dinner*
(Hunan Garden Restaurant, The Forum, Exchange Square, Central)

Scientific Programme

30th May 2009 (Saturday)

8.00 – 8.45 am Registration (*Foyer outside Lecture Theatre*)

Symposium IV – Cardiovascular Physiology

Chairpersons: Stephen S.M. Chung and X.Q. Yao

8.45 – 9.30 am Keynote Lecture (**KL2**)
Professor CHAN Julie Y.H., Kaohsiung Veterans General Hospital
Mitochondrial Dysfunction and Oxidative Stress in Neurogenic Hypertension

9.30 – 10.00 am Professor ZHU Yichun, Fudan University (**IL8**)
A Novel Role of Hydrogen Sulfide in Cardiovascular Regulation

Coffee/Tea break & Poster viewing (Exhibition Area)

Poster Presentation Session (*Exhibition Area*)

Chairpersons: Paul W.F. Poon and Stephen Y.W. Shiu

10.10 – 10.15 am KOTAKA Masayo, The University of Hong Kong (**P1**)
Structural Basis for Enzymatic Mechanisms of ADP-ribosyl Cyclase

10.15 – 10.20 am LIANG Feng Ting, The Chinese University of Hong Kong (**P2**)
Involvement of P38 MAPK and NFkB in Poly-L-arginine-induced Cytokine Release in Human Bronchial Epithelial Cells

10.20 – 10.25 am LIAO Wan-Chun, National Cheng Kung University (**P3**)
Evoked Gamma Band Activity to AM Stimuli in the Auditory Cortex of the Conscious Rat

10.25 – 10.30 am NG Ka Pak, The University of Hong Kong (**P4**)
Postnatal Responsiveness of Vestibular-related Thalamic Neurons to Angular and Linear Head Movements

10.30 – 10.35 am SHEN Bing, The Chinese University of Hong Kong (**P5**)
Cyclic AMP Stimulates TRPC6 Channel Externalization through PI3K-PKB-MEK-ERK1/2 Signaling Pathway

10.35 – 10.40 am TSAY Shioh-Jen, National Sun Yat-Sen University (**P6**)
Protection Against the High Fructose Diet-induced Hypertension After Activation of PPAR in the RVLM

- 10.40 – 10.45 am WONG Tak-Wah, National Cheng Kung University (**P7**)
Photodynamic Therapy Inhibits Cancer Cell Adhesion, Migration and Invasiveness Depends on Focal Adhesion Kinase Signaling
- 10.45 – 10.50 am WU Wei, The University of Hong Kong (**P8**)
Human Ether α -go-go Gene Potassium Channels are Modulated by EGFR Tyrosine Kinase

Oral Presentation Session – II

Chairpersons: M. Kotaka and Raymond K.K. Leung

- 11.00 – 11.15 am TAM Chun Wai, The University of Hong Kong (**OP4**)
Putative Cellular Receptor for Secreted PDZ Domain-containing Protein 2 (sPDZD2) in Cancer Cells
- 11.15 – 11.30 am ZENG Xuhui, Washington University (**OP5**)
KCNMB Beta4 Subunit Selectively Modulates Slo3 Expression and Function

Symposium V – Respiratory Physiology

Chairpersons: M.L. Fung and W.H. Ko

- 11.30 – 12.00 nn Professor HWANG Ji-Chuu., National Taiwan Normal University (**IL9**)
Activation of Pulmonary Vagal C-Fiber Receptors Evokes Glottal Closure
- 12.00 – 12.30 pm Professor KOU Yu Ru, National Yang Ming University (**IL10**)
Detrimental Effects of Toxic Smoke on Lung Cells: To Live or Not to Live

- 12.30 pm **Closing Remarks**
Professor H.C. Lee
Head of Physiology, The University of Hong Kong

Light sandwiches (Exhibition Room)