

香港大學心臟血管研究所

THE INSTITUTE OF CARDIOVASCULAR
SCIENCE AND MEDICINE



2014 Annual Report

Mission Statement of the
Institute of Cardiovascular Science and Medicine

The Institute of Cardiovascular Science and Medicine (ICSM) commits itself to strive for excellence in research, teaching and training in cardiovascular sciences which contributes to the prevention and patient management of cardiovascular diseases in Hong Kong.

We shall offer the highest standards of teaching research and scholarship in an interactive environment conducive to creativity, to innovative learning and to freedom of thought, enquiry and expression in all aspects of cardiovascular sciences.

We shall continue to undertake research, teaching and other forms of service in clinical and basic cardiovascular sciences which will advance our quest for wisdom, truth and excellence in biomedical science at large.

We shall make known the mission of this Institute in Hong Kong and internationally.

Governance

Council

The members of the Institute elect a Council, who are responsible for carrying out the work of the Institute according to its Mission, Objectives, By-Laws and Regulations. The Council consists of the Officers, the immediate Former Director (if available), and three to ten Council Members. The Officers of the Institute are the Director, Deputy Director, Honorary Secretary and Honorary Treasurer. Each Council serves the Institute for a period of two years. The Seventh Council of the Institute was elected at the 17th Annual General Meeting on 23rd November 2013, and remained in office throughout 2015.

Ninth Council of the ICSM

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|---------------------|-------------------------|------------------|--------------------------|
| Director: | Professor B.M.Y. Cheung | Council Members: | Professor K.R. Boheler |
| Deputy Director: | Dr. H.J. Ballard | | Dr M.P.H. Chan |
| | | | Professor Y. Huang |
| | | | Dr M.C.W. Kong |
| | | | Dr G.P.H. Leung |
| Honorary Secretary: | Dr. S.W.S. Leung | | Professor R.A. Li |
| | | | Professor R.Y.K. Man |
| | | | Dr. E.H.C. Tang |
| Honorary Treasurer: | Dr. M.L. Fung | | Professor P.M. Vanhoutte |
| | | | Dr Q. Yang |
| | | | Dr K.K.H. Yiu |

Membership

At the end of the year 2014, membership stood at 117, and consisted of 12 Founding Members, 49 Full Members, 6 Associate members and 62 Affiliate Members.

Criteria for membership

Clinicians, scientists, researchers and students with an interest in the cardiovascular field are invited to become members of the Institute. The classes of membership open to applicants are Full, Associate or Affiliate Membership.

All applicants for admission shall

1. Be at least 18 years of age; and
2. Be of good character and repute; and
3. Undertake in writing to adhere to the By-Laws of the Institute, as amended from time to time.

Applicants for admission as a Full Member shall also

1. Be a full time or honorary teacher (Assistant Professor, Honorary Clinical Lecturer or above) of the University of Hong Kong or be deemed to be holding an equivalent position; and
2. Be engaged in research in cardiovascular science or cardiovascular medicine, as evidenced by his or her published works.

Applicants for admission as Associates shall also

1. Possess either a medical degree (MBBS or equivalent) plus a higher qualification (MRCP or equivalent), or a doctorate (PhD or equivalent) in science; and
2. Be engaged in research in cardiovascular science or cardiovascular medicine.

Applicants for admission as Affiliates shall also

1. Possess a University degree or equivalent in medicine, nursing or science; and
2. Be engaged in or have a strong interest in cardiovascular research.

Applications for membership, accompanied by the appropriate supporting documents (e.g. resume, list of relevant publications, copies of certificates) should be submitted to the Honorary Secretary, to whom membership enquiries may also be addressed. The application form may be obtained by writing or e-mailing (icsm@hkucc.hku.hk) to the Honorary Secretary, or it may be downloaded from the membership section of our website (<http://www.icsm-hk.org>)

Research

Scientific Meetings

The Eighteenth Annual Scientific Meeting: Bridging the Translational Gap

The Eighteenth Annual Scientific Meeting was held on November 1st 2014 at the Hong Kong Convention & Exhibition Centre, under the Co-chairmanship of Professor Ken R. Boheler, and Dr. Kelvin H. Yiu.

The meeting started in the morning with oral and poster presentations by the young investigators: 18 abstracts were submitted for the meeting, and prizes were awarded to the best oral communications and the best poster presentations. The Young Investigator Awards were sponsored by the Sun Chieh Yeh Heart Foundation.

The scientific programme comprised of three Symposia: one in the morning after the Young Investigator Award competitions and two in the afternoon after the Opening Ceremony. The Morning Symposium included the presentations on “Overcoming Barriers to the Use of Human Pluripotent Stem Cells” by Professor Ken Boheler from University of Hong Kong, and on “Non-Ending Search for the Best Pharmacological Vasodilator for Coronary Artery Bypass Grafts” by Professor Guo-Wei He from TEDA International Cardiovascular Hospital & the Affiliated Hospital of Hangzhou Normal University (China).

The afternoon was devoted to a series of keynote lectures. In the first afternoon symposium, clinically-focused lectures titled “Electrical Remodeling of the Failing Heart and the Risk of Sudden Cardiac Death” and “Advances in PCI: Novel Imaging and Novel Devices” were presented respectively by Professor Gordon Tomaselli from Johns Hopkins University (U.S.A.) and Professor Stephen Lee from Queen Mary Hospital (Hong Kong). Topics in the second afternoon symposium included “GLP-1-Elevating Agents Benefit Endothelial Function”, delivered by Professor Yu Huang from Chinese University of Hong Kong, “Recent Advance in Clinical Management of Acute Coronary Syndrome and Lipid Disorders”, presented by Dr. Michael Chan from University of Hong Kong, and “Recent Advance in Imaging”, delivered by Dr Kelvin Yiu from University of Hong Kong.

The meeting closed with a brief address from ICSM Director, Professor Bernard Cheung, and from one of the Trustees of Sun Chieh Yeh Heart Foundation, Professor Chu-Pak Lau, followed by the presentation ceremony for the Young Investigator Awards.

External Research Grants awarded in 2014 to members of the ICSM
as Principal Investigator

| Principal Investigator | Awarding Body | Project Title | Awards (HK\$) |
|------------------------|----------------------------------|---|---------------|
| Professor K.R. Boheler | RGC GRF | Mechanistic Study of Vascular Ehlers-Danlos Syndrome using Induced Pluripotent Stem Cells derived from Humans with COL3A1 Mutations | 1,022,494 |
| Professor K.R. Boheler | HMRF - Advanced Medical Research | STF31 and the Selective Ablation of Tumorigenic Human Pluripotent Stem Cells from Differentiated Cells Destined for Regenerative Medicine | 976,500 |
| Professor Y.F. Cheung | HMRF - Advanced Medical Research | Circulating MicroRNAs and Myocardial Damage in Paediatric Cancer Patients Receiving Anthracycline Therapy | 832,754 |
| Professor Y.F. Cheung | HMRF - Advanced Medical Research | Circulating Transforming Growth Factor- β and Aortic Dilation in Patients with Repaired Congenital Heart Disease | 493,752 |
| Professor Y. Huang | RGC GRF | Critical Role of Smad Signaling in Mediating Vascular Inflammation and Dysfunction in Diabetes and Obesity | 959,868 |
| Professor Y. Huang | HMRF - Advanced Medical Research | Investigation of In Vivo and In Vitro Vascular Benefits of Vitamin D in Mouse Models of Obesity and Diabetes | 993,920 |
| Dr S.W.S. Leung | RGC GRF | Vasoconstrictor Signals in Hypoxia: Role of Soluble Guanylyl Cyclase | 1,171,188 |
| Professor R.A. Li | RGC GRF | Ontogenic Combinatorial Conditioning of 3D Human Pluripotent Stem Cell Ventricular Models for Facilitated Maturation | 1,212,445 |
| Dr E.H.C. Tang | RGC GRF | Enhancement of the Fat-Burning Capacity of White and Brown Adipose Tissue by Activation of Prostaglandin E Receptor Subtype 4 | 1,004,128 |
| Prof H.F. Tse | RGC GRF | Lower Thoracic Spinal Cord Stimulation for Treatment of Heart Failure with Preserved Ejection Fraction: Insight from a Porcine Model of Hypertensive Cardiomyopathy | 865,890 |

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| Professor Q. Yang | RGC GRF | Role of ER Stress in Endothelial Dysfunction During Hypoxia- Reoxygenation — Mechanistic Insight from Endothelial Ion Channels | 505,736 |
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ICSM publications in 2014

Abstracts from the Eighteenth Annual Scientific Meeting (held in November 2014) were published in October 2014 issue of the Journal of the Hong Kong College of Cardiology (Volume 22, No. 2 pp.44-57)

| | | |
|--|---|----|
| K Boheler | OVERCOMING BARRIERS TO THE USE OF HUMAN PLURIPOTENT STEM CELLS | 47 |
| GW He | NON-ENDING SEARCH FOR THE BEST PHARMACOLOGICAL VASODILATOR FOR CORONARY ARTERY BYPASS GRAFTS | 47 |
| GF Tomaselli | ELECTRICAL REMODELING OF THE FAILING HEART AND THE RISK OF SUDDEN CARDIAC DEATH | 48 |
| Y Huang | GLP-1-ELEVATING AGENTS BENEFIT ENDOTHELIAL FUNCTION | 48 |
| MPH Chan | RECENT ADVANCE IN CLINICAL MANAGEMENT OF ACUTE CORONARY SYNDROME AND LIPID DISORDERS | 48 |
| KY Yiu | RECENT ADVANCE IN IMAGING | 48 |
| HK Wong, Y Cai, EHC Tang | KNOCKDOWN OF REPRESSOR ACTIVATOR PROTEIN 1 FACILITATED FOAM CELL FORMATION BY AUGMENTING CHOLESTEROL UPTAKE | 49 |
| YM Liang, X Li, YL Zhang, Z Zhen, SC Yeung, MSM Ip, HF Tse, QZ Lian, JCW Mak | AMELIORATION OF CIGARETTE SMOKE-INDUCED CARDIAC DYSFUNCTION AND INFLAMMATION BY MESENCHYMAL STEM CELLS | 49 |
| CM Detremmerie, SWS Leung, A Xu, Y Gao, PM Vanhoutte | ENDOTHELIUM-, SOLUBLE GUANYLYL CYCLASE-DEPENDENT CONTRACTIONS IN ISOLATED ARTERIES | 50 |
| YZ Zhao, S Flavahan, SWS Leung, A Xu, PM Vanhoutte, NA Flavahan | ENDOTHELIAL DYSFUNCTION CAUSED BY INCREASED PRESSURE IN ADULT MOUSE CAROTID ARTERIES IS MEDIATED BY LOCAL ANGIOTENSIN SIGNALING | 50 |
| Y Cai, PM Vanhoutte, EHC Tang | REPRESSOR ACTIVATOR PROTEIN 1 INDUCES PRO-INFLAMMATORY CYTOKINES PRODUCTION IN MACROPHAGES THROUGH NFKB SIGNALING | 51 |
| O Baretella, A Xu, PM Vanhoutte | ROLE OF IP RECEPTORS IN RENAL BASAL ARTERIAL TONE AND ENDOTHELIUM-DEPENDENT CONTRACTIONS | 51 |

| | | |
|--|--|----|
| D Qu, J Liu, CW Lau, Y Huang | DIFFERENTIAL MECHANISMS FOR INSULIN-INDUCED RELAXATIONS IN MOUSE POSTERIOR TIBIAL ARTERIES AND MAIN MESENTERIC ARTERIES | 52 |
| WS Cheang, CY Ngai, Z Chen, FP Leung, Y Huang | BLACK TEA AMELIORATES ENDOTHELIAL FUNCTION BY INHIBITING ENDOPLASMIC RETICULUM STRESS IN HYPERTENSIVE RATS | 52 |
| WT Sun, XC Wang, CM Yu, Q Yang | ROLE OF ER STRESS IN VASCULAR BKCa DYSFUNCTION CAUSED BY HOMOCYSTEINE | 53 |
| XC Wang, WT Sun, CM Yu, Q Yang | ROLE OF TRPC3 IN ENDOTHELIAL KCa ACTIVITY: EFFECT OF HYPOXIA-REOXYGENATION | 53 |
| H Chen, SWS Leung, RYK Man | EFFECTS OF WY14643 AND FENOFIBRATE ON ACETYLCHOLINE-INDUCED CONTRACTIONS IN AORTIC RINGS FROM SPONTANEOUSLY HYPERTENSIVE RATS | 54 |
| JF Pan, R Guo, EC Liang, GL Tipoe, ML Fung | INTERMITTENT HYPOXIA AGGRAVATES EARLY PATHOGENESIS OF NON-ALCOHOLIC FATTY LIVER DISEASE IN RATS | 54 |
| L Zhang, SWS Leung, RYK Man | PREVENTION OF GLYCERYL TRINITRATE TOLERANCE BY FLAVONOIDS | 55 |
| CS Lam, YY Liu, GL Tipoe, ML Fung | CHRONIC INTERMITTENT HYPOXIA INDUCES DEPRESSIVE-LIKE BEHAVIOR IN RATS | 55 |
| MY Lee | FLUOXETINE-INDUCED CARDIAC DEPRESSION IS ASSOCIATED WITH THE TOTAL MAGNESIUM EFFLUX IN RATS | 56 |
| F Ying, Y Cai, EHC Tang | IMPAIRED COLD TOLERANCE IN EP4 KNOCKOUT MICE IS NOT DUE TO COMPROMISED RECRUITMENT OF UCP1 | 56 |
| TL Chiu, SWS Leung | ROLE OF EXTRACELLULAR SIGNAL-REGULATED KINASE IN THE REGULATION OF ENDOTHELIUMDEPENDENT RELAXATIONS IN PORCINE CORONARY ARTERIES | 57 |
| X Zhang, K Wang, Q Yang, J Wang, C Xuan, GW He | PROTEOMIC STUDY REVEALS CHANGES OF ACUTE PHASE PROTEINS IN THE PLASMA OF PATIENTS WITH CONGENITAL HEART DISEASE | 57 |

Publications of ICSM Members in 2014

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