

香港大學心臟血管研究所

THE INSTITUTE OF CARDIOVASCULAR
SCIENCE AND MEDICINE



2007 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 Fifth Council of the Institute was elected at the 9th Annual General Meeting on 3rd December 2005. The Sixth Council of the Institute was elected at the 11th Annual General Meeting on 8th December 2007.

Fifth Council of the ICSM (December 2005 – December 2007)

Director:	Professor T.M. Wong	Council	Dr. H.J. Ballard
Deputy		Members:	Dr. B.M.Y. Cheung
Director:	Professor H.F. Tse		Professor Y. Huang
Honorary			Professor C.P. Lau
Secretary:	Dr. M.L. Fung		Dr. K.L.F. Lee
Honorary			Dr. G.P.H. Leung
Treasurer:	Professor S.S.M. Chung		Professor R.Y.K. Man
			Professor P.M. Vanhoutte

Sixth Council of the ICSM (December 2007)

Director:	Professor C.P. Lau	Council	Dr. M.L. Fung
Deputy		Members:	Professor Y. Huang
Director:	Professor P.M. Vanhoutte		Dr. K.L.F. Lee
Honorary			Dr. G.P.H. Leung
Secretary:	Dr. H.J. Ballard		Dr. G.R. Li
Honorary			Professor R.Y.K. Man
Treasurer:	Professor S.S.M. Chung		Dr. H.F. Tse
			Professor T.M. Wong

Membership Sub-Committee of the Council

Dr. H.J. Ballard

Professor Y. Huang

Membership

At the end of the year 2007, membership stood at 104, and consisted of 11 Founding Members, 46 Full Members, 7 Associate members and 46 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 (eg. 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>)

Scientific Meetings

The Eleventh Annual Scientific Meeting: Recent Advances in Hypertension and other Cardiovascular Dysfunctions

The Eleventh Annual Scientific Meeting was held successfully on December 8th 2007 in the Sheraton Hotel, funded by Servier International. Co-chairmen of the Meeting were Prof SSM Chung, Prof Y Huang and Dr KLF Lee. The scientific programme comprised six invited lectures and one interactive session on the treatment of hypertension. Invited talks and the interactive session were delivered by our overseas speakers: Prof BF Yang from the Harbin Medical University, China; Prof J Sassard from University of Lyon, France; Prof PYA Ding from National Yang-Ming University Taipei Veterans General Hospital, Taiwan; Prof DL Clement from University of Gent, Belgium; and also by our local faculty members, Prof Y Huang, Prof PM Vanhoutte, Prof CR Kumana, YT Tai and members of the Hong Kong College of Cardiology. Seven oral presentations and ten posters were presented, from which the six best presentations were selected for the Best Paper Award supported by the Dr Sun Chieh Yeh heart Foundation. Prof J Sassard commended the impressive performance of the presenters. The awards to the best three oral and three poster presenters, were handed out by Prof TM Wong. The meeting concluded with closing remarks from the ICSM Director. The meeting was very well received and attracted about 120 registrants. Forty one abstracts were submitted and accepted for publication in the Journal of the Hong Kong College of Cardiology.

6th Scientific Conference on Cardiovascular Sciences across the Straits 2007

The Sixth Scientific Meeting on Cardiovascular Sciences across the Strait, organised by the Chinese Pharmacological Society, Chinese Physiological Society, Chinese Pathophysiological Society, Chinese Medical Society and Xin Jiang Medical University, was held from 27-30 July 2007 at Urumqi, Xinjiang, China. Three ICSM representatives gave plenary lectures at the conference: Professor T.M. Wong delivered a lecture entitled "Testosterone protects the heart against ischemic insults – mechanisms of actions". Professor Huang Yu spoke on the topic "Black tea and theaflavins protect vascular function" and Professor Yao Xiaoqiang on "Cyclic nucleotide-gated cation channels in vascular endothelial cell".

Joint scientific session in the HK College of Cardiology Annual Meeting

A HK College of Cardiology / ICSM Joint Symposium was held at the HKCC Annual Meeting on Friday May 4, 2007. There were three speakers from the ICSM: Professor Paul Vanhoutte delivered a lecture entitled "Nutrition, Endothelial Function and Cardiovascular Diseases"; Professor Wong Tak-ming delivered a lecture entitled "Should Testosterone be Used as a Hormone Replacement After Andropause", and Professor Huang Yu delivered a lecture entitled "Is Vaso-protection of COX-2 Inhibition Due to Actions on Endothelial Cells". The presentations were very well received by the participants.

Visitors and Seminars

Professor Metin Avkitran, Secretary General of the International Society for Heart Research, visited the ICSM on February 4-6, 2007 with the support from the HKTB. He met with ICSM members and delivered a seminar entitled "The Na⁺/H⁺ exchanger as a therapeutic target in cardiac disease" on February 6, 2007. The event was held jointly with the Department of Physiology, HKU.

Dr. William Kongto Hau of the Volcano Corporation presented a seminar entitled: "Virtual Histology (VH-IVUS): A New Diagnostic Paradigm for Coronary Artery Disease" which was jointly hosted by the Department of Physiology and the ICSM on Thursday, 27 September 2007.

Research Collaboration

The ICSM has been working closely with the Research Centre of Heart, Brain, Hormone and Healthy Aging of the Faculty of Medicine, HKU on research in areas related to cardiovascular science and medicine, geriatric medicine and diabetes, vascular biology, and regenerative biology and medicine.

Meeting our Targets

Aims for 2007

Our goals were to further enhance the breadth and depth of the research collaboration with other research groups, by bringing together researchers in Cardiovascular Science and Medicine, and to actively promote collaboration between our members. ICSM members continued to obtain the award of research grants and to publish research papers in top international journals. Members have been actively participating and involved in the research activities in the HKU strategic research theme, namely the Heart, Brain, Hormone and Healthy Ageing (HBHA). Last, but not least, collaborative links were further expanded to other groups researching in areas related to cardiovascular science and medicine. All of these objectives were fully achieved during 2007.

Aims for 2008

International collaborations

The ICSM has been actively seeking international links for new research collaborations, joint scientific meetings, so as to promote research activities and to further increase the visibility of the ICSM internationally, for example, by strengthening collaborations with the International Society for Heart Research; ICSM members also collaborate with colleagues in Australia, Mainland, Taiwan, Japan, Europe and North America.

Collaboration with other research groups

The major mortality and morbidity in the ageing population is attributable to cardiovascular disease, whilst diabetes is associated with accelerated atherosclerosis. Heart disease, peripheral vascular disease and stroke are the major causes of death in diabetic patients over the age of 50: diabetes doubles the probability of stroke and increases the probability of myocardial infarction by 3-5 times. We aim to strengthen our links with the HBHA research centre and research groups working on geriatric medicine and diabetes, vascular biology, and regenerative biology and medicine so as to further increase our research contribution in these areas.

External Research Grants awarded in 2007 to members of the ICSM

Principal / Co-Investigator	Awarding Body	Project Title	Award HK\$
Dr BMY Cheung, HKU (PI)	RGC	Do biomarkers of inflammation and obesity predict the development of hypertension in Hong Kong Chinese?	900,039
Dr YF Cheung, HKU (PI)	Children's Thalassaemia Foundation	Novel real-time 3-dimensional echocardiographic assessment of right and left ventricular function in patients with beta-thalassaemia major	162,000
Prof GW He, CUHK (PI)	RGC	Studies on the function and mRNA and protein expression of ion channels in the coronary endothelium related to ischemia.	1,085,729
Prof YW Kwan, CUHK (PI)	RGC	A novel regulation of insulin release by HMG CoA reductase inhibitors (statins) in porcine isolated pancreatic islets beta-cells	1085,729
Dr GPH Leung, HKU (PI)	RGC	Nimodipine suppresses chemokine release via inhibition of adenosine uptake in endothelial cells	954,000
Dr SWS Leung, HKU (PI)	RGC	Regulation of endothelial-derived hyperpolarizing factor-mediated responses in physiological and pathological conditions	1,088,534
Prof RYK Man, HKU (PI)	RGC	Mechanism for the modulation of vascular function by flavonoids	1,065,435
Prof F Tang, HKU (PI)	RGC	Adrenomedullin as a new metabolic hormone: its metabolic actions in the skeletal muscles, adipose tissues and liver, interaction with endothelin and other adipokines, and possible roles in metabolic syndrome.	984,259
Dr SCW Tang, HKU (PI)	RGC	Mapping the molecular footprints and therapeutic targets of diabetic nephropathy	1,085,729
Prof PM Vanhoutte, HKU (PI)	RGC	Endothelium-Derived Contracting Factor (EDCF) in Spontaneous Hypertension	791,466
Prof XG Yao, CUHK (PI)	RGC	Interaction of TRPC channels with large conductance Ca ²⁺ -sensitive potassium channels in vascular smooth muscle cells	1,095,876
Prof XG Yao, CUHK (CI)	RGC (Central Allocation)	Peptidomimetics for Drug Discovery: Design, Synthesis and Biological Applications	3,400,000

ICSM Publications in 2007

Abstracts from the Tenth Annual Scientific Meeting (held in December 2007) were published in the October 2007 issue of the Journal of the Hong Kong College of Cardiology (Volume 15, Number 2).

<u>PM Vanhoutte</u>	ENDOTHELIAL DYSFUNCTION IN HYPERTENSION	79
<u>BF Yang</u> , YJ Lu, CQ Xu, HL Shan, Y Zhang, ZW Pan and BX Li	RESEARCH ON NOVEL TARGETS REGULATING CARDIAC ISCHEMIC ARRHYTHMIAS	79
WT Wong, XY Tian, FP Leung, LM Yung, CW Lau, XQ Yao, Paul M Vanhoutte and <u>Y Huang</u>	CYCLOOXYGENASE - DEPENDENT ENDOTHELIAL DYSFUNCTION IN RENOVASCULAR HYPERTENSION	79
<u>Jean Sassard</u>	THE ROLE OF THE RENIN ANGIOTENSIN SYSTEM IN BLOOD PRESSURE REGULATION AND HYPERTENSION	80
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<u>DL Clement</u>	NEW TRENDS IN THE MANAGEMENT OF ARTERIAL HYPERTENSION	80
<u>J Gao</u> , RF Li, GQ Yang, TQ Wang, K Le, YX Bao, FY Zhang, WJ Tang and PQ Liu	TANSHINONE IIA ATTENUATED CARDIAC FIBROSIS IN RATS VIA INHIBITION OF OXIDATIVE STRESS: IN VIVO AND IN VITRO INVESTIGATIONS	81
<u>LY Song</u> , MWL Koo, BMY Cheung and CP Lau	EFFECTS OF GREEN TEA ON HYPERCHOLESTEROLEMIA INDUCED HYPERTENSION IN RATS	81
<u>FT Tang</u> , TQ Wang, XQ Wu, SR Chen, P Wang, RF Li, HJ Zhang, J Gao, LP. Bao, PQ. Liu and HQ. Huang	EXPRESSION PATTERN OF GENES RELATED TO THE CHOLESTEROL UPTAKES AND EFFLUX IN AGE-DEPENDENT ATHEROSCLEROTIC DEVELOPMENT OF APOE ^{-/-} MICE	82
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Publications of ICSM Members in 2007

Chan LY, Keung WYW, Leung SWS, Che CM, Man RYK. The vasorelaxation effect of an extract of chinese medicinal herb, radix angelica pubescens, in porcine coronary artery. Meeting the Challenges of an Aging Population, Hong Kong, March 3-4, 62, 2007.

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