

MCI RESEARCH MEETINGS



Dr Ng Chin Hin (right), MCI student, presenting his project at a research meeting while Professor Rush (left) gives his comments



A research meeting in progress

Mentoring is a critical element in our students' learning. To address this need, for the third cohort of MCI students in the second year of their programme, we have introduced a multidisciplinary mentoring team for each student so that in addition to his or her respective research supervisor, there is also an expert in quantitative sciences (biostatistics, epidemiology and bioinformatics) to provide advice. To complement this, we have also started regular research meetings where students present their research projects for critique from a panel of clinical and quantitative experts. These meetings are led by Professor John Rush, Vice-Dean of Clinical Sciences, Duke-NUS Graduate Medical School, and supported by the team of quantitative scientists from the Centre for Quantitative Medicine in Duke-NUS, as well as Associate Professor Allen Yeoh and several clinician-researchers and scientists from the Yong Loo Lin School of Medicine.

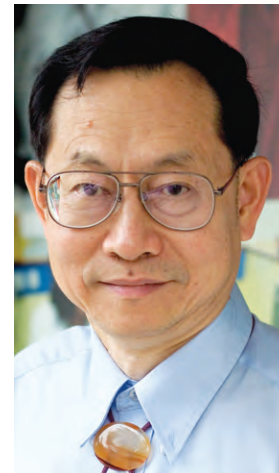
MCI AS A DISPLAYABLE QUALIFICATION

We are pleased to announce that MCI has been added to the Singapore Medical Council's Register of Displayable Qualifications with effect from 2010.

MESSAGE FROM

Chairman

Specialist Accreditation Board Research Committee



Professor Woo Keng Thye

One needs to be equipped with the necessary basic and technical skills for research if one wishes to be engaged in research. It is not unreasonable to suggest that one would have to enroll in a research school and attend classes in research in order to become a researcher.

The Master of Clinical Investigation (MCI) programme at the NUS Yong Loo Lin School of Medicine is designed to familiarise doctors with research designs and methodology, grant application and statistical skills to enable them to pursue clinical research. The MCI programme nurtures clinicians so that they will be poised to answer the questions in translational research relevant to their specialty. The advantage of this course is that busy clinicians can attend classes interspersed over a two year period and acquire their research training without having to venture overseas. I would strongly recommend more doctors interested in a research career to attend this course and I congratulate the present graduating cohort for their accomplishment and wish them every success in all their research endeavours.

“Always bear in mind that your own resolution to success is more important than any other one thing.”

Abraham Lincoln

About the Master of Clinical Investigation (MCI) programme

The MCI programme was developed by the Yong Loo Lin School of Medicine, National University of Singapore, in consultation with the Ministry of Health. Launched in August 2008, it aims to nurture more clinician scientists to enhance Singapore's translational and clinical research capability. The programme is funded by the National Research Foundation through the National Medical Research Council, which also provides scholarships for students in the programme.

All students who enrol in the MCI programme are required to complete nine modules in coursework, and undertake a research project each over a period of two years. The programme trains them to develop their projects into grant proposals for submission to a local or international funding agency.

“It is only by persistent intelligent study of disease upon a methodical plan of examination that a man gradually learns to correlate his daily lessons with the facts of his previous experience and of that of his fellows, and so acquires clinical wisdom.”

Sir William Osler (1848 – 1919)

ACHIEVEMENTS OF OUR ALUMNI

Research Grants

Class of 2010:

Chin Woon Loong Calvin
Dept of Cardiology, National Heart Centre
Awarded SingHealth Foundation Grant (2010)
“Role of endothelial dysfunction in the pathogenesis of coronary microvascular ischemia in patients with systemic lupus erythematosus”

Jimmy Lee Chee Keong
Dept of General Psychiatry 1 & Research Division, IMH
Awarded NMRC NIG Grant (2010)
“Elucidating Potential Lipid-based Biomarkers in Schizophrenia”

Quah Hui Min Joanne
SingHealth Polyclinics, Outram
Awarded SingHealth Foundation Grant (2009)
“Prevalence, Perceptions and Barriers to care of Depression among Geriatric Primary care patients in Singapore”

Class of 2011:

Kuan Win Sen
Dept of Emergency Medicine, NUS
Awarded NUHS Pitch For Funds Merit Award (2010)
“The role of SphK1 as an early diagnostic and prognostic marker for patients with sepsis in the Emergency Department: A comparison with current standard of care”

Awarded NUHS Clinician Research Grant (2011)
“Emergency Department Management of Sepsis Patients: A Goal-Oriented Non-Invasive Sepsis Trial (AGONIST)”

Low Hsiu Ling Andrea
Dept of Rheumatology & Immunology, SGH
Awarded SingHealth Foundation Grant (2010)
“Cardiac biomarkers in systemic sclerosis: the association with pulmonary arterial hypertension and cardiomyopathy”

Subramaniam Tavintharan

Dept of Medicine, KTPH
Awarded NMRC Programme Project Grant (2011)
“Novel genetic and non-genetic risk factors for endothelial dysfunction and diabetic micro-angiopathies”
Awarded AHPL Small Innovative Grant (2011)
“Association of microRNA and protein expression with Insulin Resistance and Body Mass Index”

Thia Teck Joo Kelvin
Dept of Gastroenterology & Hepatology, SGH
Awarded SingHealth Foundation Grant (2011)
“Optimising Colorectal Polyp Detection and Differentiation Through Image-enhanced Endoscopy”

Research Awards and Scholarships

Class of 2010:

Chin Woon Loong Calvin
Dept of Cardiology, National Heart Centre
NRF-MOH Healthcare Research Scholarship (PhD), 2011

Pan Jiun Yit
National Skin Centre
NHG Research Investigator Scientist Enabler (RISE) awardee, 2008-2010
Best Free Paper, Dermatology Update, 2008
Best Free Paper, Dermatology Update, 2010

Tan Ngiap Chuan
SingHealth Polyclinics, Pasir Ris
Second prize for Best Oral Paper at the Wonca Asia Pacific Regional Conference, 2011

Class of 2011:

Thia Teck Joo Kelvin
Dept of Gastroenterology & Hepatology, SGH
Awarded SingHealth Outstanding Publication Award, 2011

OUR CURRENT STUDENTS

3RD Cohort – August 2010 Intake

Name	Designation	Institution
1 Ang Han Nian, Marcus	Registrar	Singapore National Eye Centre
2 Ch'ng Jack Kian	Registrar	Department of General Surgery, Singapore General Hospital
3 Goh Jia Jun	Registrar	Department of Neurosurgery, National Neuroscience Institute
4 Ng Chin Hin	Associate Consultant	Department of Haematology-Oncology, National University Hospital
5 Rajinder Singh	Consultant	Department of Neurology, National Neuroscience Institute
6 Sng Ban Leong	Consultant	Women's Anaesthesia, KK Women's and Children's Hospital
7 Swati Handa	Senior Staff Registrar	Department of Ophthalmology, KK Women's and Children's Hospital
8 Tan Pei Lin, Lynnette	Registrar	Department of Psychological Medicine, Tan Tock Seng Hospital
9 Tan Shu Yun	Registrar	Department of Family Medicine & Continuing Care, Singapore General Hospital
10 Teng Gim Gee	Consultant	Department of Medicine, Division of Rheumatology, National University Hospital
11 Wee Kien Han Andrew	Deputy Director/ Senior Family Physician	SingHealth Polyclinics, Marine Parade

4TH Cohort – August 2011 Intake

Name	Designation	Institution
1 Dharmaraj Rajesh Babu	Registrar	Department of Surgery, National University Health System
2 Go Yun Yun	Medical Officer	Dermatology Unit, Singapore General Hospital
3 Goh Ting Hui Angeline	Consultant	Department of Renal Medicine, Singapore General Hospital
4 Hey Hwee Weng Dennis	Registrar	Department of Orthopaedic Surgery, National University Health System
5 Nadira Binte Hamid	Specialist Registrar	Department of Cardiology, National Heart Centre Singapore
6 Colin Ngeow	Consultant	Medical Services Division, St Luke's Hospital
7 Tay Bee Gek, Laura	Associate Consultant	Department of Geriatric Medicine, Tan Tock Seng Hospital
8 Wu Mei Wen, Fiona	Registrar	Department of Urology, National University Health System

Advisor : Assoc Prof Koh Woon Puay

Editors : Yang Chunxuan, Rafika Senan

Executive Chairman

National Medical Research Council (NMRC)



Professor **Donald Tan**

It is my pleasure to have this opportunity to pen a message for this second issue of the Master of Clinical Investigation (MCI) newsletter.

My heartiest congratulations to our elite group of nine doctors who form the second graduating cohort of the MCI programme this year.

Translational and clinical research (TCR) is important in advancing medical innovations and bringing better clinical treatment and care to our patients. Clinician-scientists, equipped with both medical and research knowledge, provide the critical link in TCR by combining clinical observations and science to generate healthcare solutions.

The MCI programme, administered by NUS and supported by NMRC, plays an important role in nurturing clinicians with interest in incorporating research into clinical practice, and providing the foundation to build a pipeline of full-fledged clinician-scientists in Singapore.

I am greatly encouraged by the achievements of the first and second cohorts of the MCI graduates, some of whom have secured research grants and scholarships. I am confident that MCI will continue to equip our clinicians with applicable skills, bringing them closer towards careers as clinician-scientists and to enhance Singapore's TCR capabilities.

Once again, congratulations to all graduates and wishing all MCI students every success in their endeavours!

Programme Director



Assoc Prof **Koh Woon Puay**, Programme Director (middle), with Programme Administrators, Ms Yang Chunxuan (left) and Ms Rafika Senan (right)

There is an anonymous saying, "A milestone passed, new things begun, dreams as shining as the sun, a goal achieved, a victory won! That's Graduation!" For our 9 doctors who form the second cohort of graduates in the MCI programme, although the programme is not long enough to be considered a milestone, nevertheless, new things have certainly begun for all, and with several already achieving their short-term goals and winning small victories. Indeed, to graduate from this programme while juggling clinical work, administrative responsibilities and family commitment in the last two years is a victory in itself.

Among them, Dr Tavintharan is principal investigator of one of the three projects that have enabled him and his team from Khoo Teck Puat Hospital to win a prestigious programme project grant from National Medical Research Council (NMRC). Dr Andrea Low, Dr Kelvin Thia and Dr Kuan Win Sen have also won grants from the SingHealth Foundation and the National University Health System (NUHS) where they work. From our first cohort, Dr Calvin Chin has won the NRF-MOH Healthcare Research Scholarship to pursue PhD studies in clinical research. The other graduates are also planning to submit for funding the grants they have worked on.

An exciting development for our third cohort of students this year is the engagement of Professor John Rush and a team of quantitative scientists from the Centre for Quantitative Medicine, Duke-NUS, to mentor our students on their projects. Associate Professor Allen Yeoh and several other clinician-researchers and scientists from NUHS are also mentoring our students in teams and at regular research meetings. I am grateful to all who have come forward to teach, encourage and collaborate with our students.

A quote by Martin Luther King, Jr. goes, "Take the first step in faith. You don't have to see the whole staircase, just take the first step." For our graduates, the first grant application or the first manuscript submission is that first step towards their goal. I wish our graduates and also our current students in MCI every success as they take their first steps towards contributing to the knowledge and practice of medicine through their research.

Heartiest Congratulations to the MCI GRADUATING CLASS 2011

Dr Chan Wei-Shih, Derrick – Consultant, Paediatric Neurology, KK Women's and Children's Hospital

Derrick enrolled in MCI with the goal of gaining a firmer grounding in research. While the spectrum of modules offered by MCI provided Derrick the exposure to a wide range of possible research techniques, he found the modules covering epidemiology and statistics especially useful, as they had helped to deepen his understanding of the concepts of research design.

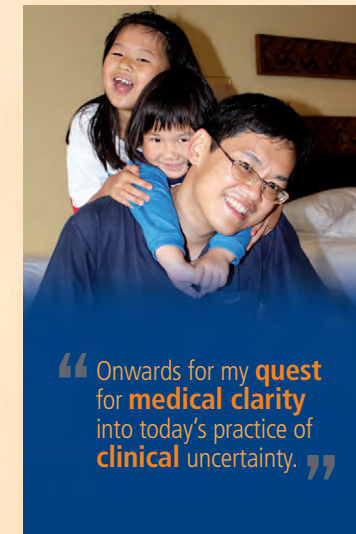
While MCI has been useful in building foundations, Derrick feels that more work is required in developing individual research direction. Hence, to further his research training, he has enrolled in the Khoo Clinical Scholar programme upon completing MCI.

Derrick would like to thank the course director, supervisors and administrators for their help and patience throughout the course.



“ The MCI has been instrumental in **equipping** and **exposing** us to **research methodology**, and specifically in writing and submitting a grant. ”

“ Attending MCI has been a **worthwhile journey** and **learning experience**. ”



Dr How Choon How – Deputy Director, SingHealth Polyclinics, Sengkang

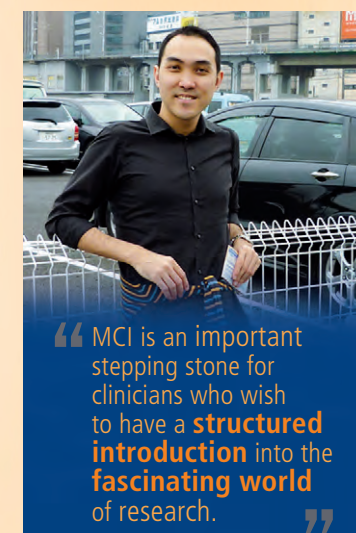
Going through the modules in MCI had helped Choon How to see his patients, their conditions and clinic work processes in a different light. "There is a saying in Chinese that '一花一世界' (every flower is a world). Everything seems to have a new gloss, something in it, beckoning to be discovered."

Moving forward, Choon How hopes to be the new miner in the research goldmine of Primary Care. He hopes to encourage and help more family physicians understand and join in the efforts to build new knowledge for the benefit of the patients.

Choon How would like to thank his wife and daughters for their loving support throughout the course. Incidentally, his wife, Dr Joanne Quah, is an alumnus from the first graduating class of 2010.

“ Onwards for my **quest** for **medical clarity** into today's practice of **clinical uncertainty**. ”

“ Improving clinical practice through clinical research is **pivotal** in the **current environment** of evidence-based medicine. ”



Dr Ng Yew Poh Vincent – Registrar, Neurosurgery, National Neuroscience Institute

Vincent found the coursework in MCI challenging but enriching. To him, it was nice to belong to a close cohort of friends coming from different disciplines to learn from one another. Lunchtime chit-chat was always something he looked forward to amidst the long and often tiring day.

Vincent is grateful to NMRC for their kind scholarship; to Assoc Prof Koh Woon Puay for her encouragement and advice; to Assoc Prof Ng Wai Hoe and Assoc Prof Ivan Ng for their strong support; to Chunxuan for her help all the time; and, last but not least, to his colleagues who have been most understanding during the course.

“ MCI is an important stepping stone for clinicians who wish to have a **structured introduction** into the **fascinating world** of research. ”



“ I hope to improve the quality of my clinical research, and provide a **major step** towards **improving** the lives of patients I care for. ”

The second graduating cohort of 9 students come from 9 different clinical disciplines but share a common goal in attending MCI to learn the skills of clinical research. They also share the same challenge in juggling clinical work, family and personal commitment, and attending the programme. While many have acknowledged the support of their spouses, we are proud to have a husband-and-wife team, Dr Derrick Chan and Dr Andrea Low, complete the programme together. As they graduate, let's find out more about their journey through MCI and their different plans for the future.

Dr Low Hsiu Ling Andrea – Consultant, Rheumatology, Singapore General Hospital

Andrea embarked on the MCI as she wanted to be equipped with the tools to conduct good quality research. Despite the initial apprehension, she and her classmates had fun being students again, including the marathon coffee sessions to keep them going.

For her future plans, Andrea looks forward to applying the knowledge gained in advancing her research interest in systemic sclerosis, specifically in the areas of cardiopulmonary and gastrointestinal complications of the disease.

Andrea would like to thank the programme director and administrators, the tutors, her mentors and her fellow classmates for making this a worthwhile journey and learning experience.



“ Overall the course was **comprehensive** and the **knowledge** gained from MCI would prove **valuable** in future research opportunities. ”

Dr Chua Kai Peng, Daniel – First Year Resident, Singapore National Eye Centre

As a medical officer undergoing a research stint at the Singapore Eye Research Institute (SERI), Daniel was keen to have structured training in research, and searched for a course that would allow him to gain quantitative and analytic skills in population-based and patient-oriented research. Hence, he chose the MCI, which offered in-depth training in biostatistics, clinical research design and methodology, cost-effectiveness research and health economics.

The inspiration and support given by his supervisor and mentor, Prof Wong Tien Yin, was instrumental in his completion of the MCI programme. Daniel's attachment with SERI reaffirmed his passion for Ophthalmology, and upon completing the MCI, he has started his Ophthalmology residency programme.

Dr Kuan Win Sen – Consultant, Emergency Medicine, National University Hospital

Win Sen embarked on the MCI based on Associate Professor Shirley Ooi's recommendation that it could be a stepping stone towards conducting clinical research. He went into the course equipped with only the curiosity of what MCI meant but graduated with the full appreciation of the in-depth methodology of research and the mind-stimulating world of statistics.

Win Sen enjoyed the critique sessions with his cohort tremendously as their diverse specialties allowed him to broaden his perspective in medicine and clinical practice. Under the helm of Associate Professor Malcolm Mahadevan, Win Sen has chosen to develop a niche in sepsis management by investigating diagnostic, therapeutic and prognostic factors affecting patients with sepsis.



“ A privilege to have interactions with **esteemed** and **recognized** clinician scientists, and **be inspired** by their examples. ”

Dr Monica Chan – Associate Consultant, Infectious Diseases, Tan Tock Seng Hospital

For Monica, the highlights of her MCI journey were the exposure to relevant new areas not covered by clinical training, e.g. pharmacology, biomarkers, statistics, ethics and epidemiology, and in meeting clinicians from different walks of life and at differing stages of research experience.

Moving forward, Monica plans to use all the tools provided by the course to embark on research in outpatient parenteral antibiotic therapy.

Monica would like to thank all the lecturers who took valuable time from their own busy schedules to share their experiences and inspiration, and to help the students consolidate the knowledge required to conduct meaningful and relevant research.

Dr Subramaniam Tavintharan – Senior Consultant, Endocrinology, Khoo Teck Puat Hospital

Tavin counts enrolling in the MCI course as a great blessing for him. With strong support from his family and colleagues in his institution, and help from lecturers, mentors and the MCI administrative team, the course had surpassed his expectations and allowed him to achieve important goals.

The coursework and network opportunities that MCI provided had allowed him to better appreciate research methodology, study planning and data analysis. Skills in grantsmanship and manuscript writing, generously shared by experts, were also very useful and had played a major part in improving his grant proposals and publications.



“ Clinical research requires **personal sacrifices** and a **willingness** to persevere until a breakthrough happens. ”

Dr Thia Teck Joo Kelvin – Consultant, Gastroenterology, Singapore General Hospital

For Kelvin, the excellent course faculty of MCI has laid the foundations for him to embark on an academic research career. He has learnt that to bring an idea to fruition in the research world requires many calculated steps, re-thinking and refocusing, widely keeping abreast with latest developments, as well as a willingness to collaborate.

Hence, Kelvin hopes to continue being productive in research and to help his juniors in their research endeavours. To achieve his goals, he will be embarking on a research study looking at early detection of colorectal polyp and dysplasia.

Kelvin is grateful to his wife, to his mentor, Dr Ling Khoon Lin, and to his department for their support and help.