



Yong Loo Lin
School of Medicine

MediCine

A publication of The Yong Loo Lin School of Medicine • Issue 10 / May 2014

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Dean's Message



Dear Friends,

Warmest greetings!

In 2008, we were honoured to receive several valuable medical books from alumnus and renowned

plastic surgeon Dr Khoo Boo Chai (Class of 1954). Many of these precious books were autographed by the authors. To continue the late Dr Khoo's legacy and spirit of knowledge-sharing, we have established the Khoo Boo Chai Athenaeum. This Athenaeum is located at the Khoo Teck Puat Advanced Surgery Training Centre, National University Hospital. Dr Khoo's exceptional gift will benefit our future generations.

In this issue, we will feature a new column, Science of Life, which showcase exciting research taking place at the School. Associate Professor Chong Yap Seng from the Department of Obstetrics and Gynaecology will discuss his work on effects of early life factors on an individual's long-term health.

Our medical students have done us proud by being among the recipients for this year's NUS Student Achievement Awards. The NUS Student Achievement Awards was launched by the NUS Office of Student Affairs to recognise students' outstanding contributions to the University beyond academia. These students have certainly demonstrated

their unwavering dedication to contribute to society despite the demands of their challenging coursework.

The 4th Annual Graduate Scientific Congress was successfully organised by our graduate students in collaboration with the Nursing and Pharmacy Departments. This Congress provides a common platform for basic science and clinical researchers of different disciplines to communicate and exchange ideas. More than 300 participants attended the Congress and these participants formed a good mix from the School of Medicine, Saw Swee Hock School of Public Health, Faculty of Dentistry, Alice Lee Centre for Nursing, Cancer Science Institute, Wong Hock Boon Society, and the Department of Pharmacy.

I would like to congratulate our alumnus Dr Mok Ying Ren (Class of 2012) on his and Singapore's very first gold medal win in the 2013 Southeast Asia (SEA) Games marathon. In the Alumni Voices column, Dr Mok shares his passion and aspirations as an athlete. We wish Dr Mok all the best in his preparations for the Rio 2016 Olympic Games!

Enjoy the read! I hope these updates help to keep you in touch with the latest in our School!

Yeoh Khay Guan

Dean

Yong Loo Lin School of Medicine

A Gift of Knowledge for Generations of Surgeons To Come



The late Dr Khoo Boo Chai

Having received an extraordinary gift of rare medical books and shares from alumnus and renowned plastic surgeon Dr Khoo Boo Chai (Class of 1954), the Medical School has established the Khoo Boo Chai Athenaeum located at the Khoo Teck Puat-Advanced Surgery Training Centre, National University Hospital. The Athenaeum houses the late Dr Khoo's invaluable medical books, many of them autographed by authors, as well as other books, journals and materials.

Alumnus Dr Khoo Teng Chuan (Class of 1982), Dr Khoo Boo Chai's son and Chief Medical Officer at the Singapore Clinical Research Institute, says, "My parents always considered education as one of the most important determinant factors that shapes a person's future and career. Through this gift of his lifetime collection of rare books, our family hopes to enable those who seek this knowledge to gain the wisdom and apply it to their medical practice to benefit patients as well as impart this knowledge to future generations of surgeons."

Explaining his father's deep love for the free exchange of knowledge and skills, the younger Dr Khoo says, "When our father started his early career in Plastic and Reconstructive Surgery, he was driven by the need to help patients with cleft lips and palates. It was during his very early training under Professor Benjamin Sheares that he learned about the careful treatment of tissues and wounds and suturing techniques that formed the basis to inspire him to try and address the unmet need of the cleft lip and palate repair. He felt that there was a dearth of opportunities to train and share sophisticated surgical techniques with young budding plastic surgeons. He then made it his life's mission to freely share his knowledge and skills with all those who sought him out as a teacher and mentor - especially in this part of the world."

Alumnus and Professor Lee Chuen Neng Lee Chuen Neng (Class of 1975), Head of the Department of Surgery, says,

"Our department is honoured to be the custodian of Dr Khoo's treasured collection of medical books, all of which were a significant part of his life and passion for medicine and medical education. The Athenaeum will be an extremely useful resource in advancing medical education and research and will benefit many future generations of surgeons, both locally and regionally."

When asked what advice his father would give to current medical students, Dr Khoo says, "He would tell them to work hard, aim high and always have a world view in all things. Travel and see the world and learn from others. Be selfless in giving of your time and knowledge to your fellow physicians and surgeons. He would also discourage medical students to consider medicine as a way to chase the dollar, as above all else, a patient's needs must come first. To this, I would add to ensure that there is a life outside the workplace and not to let work consume you to the neglect of everything else in life."

From left:
Prof Lee Chuen Neng, Dr
Khoo Teng Chuan and
Mr Khoo Teng Cheong,
sons of the late Dr Khoo
Boo Chai, and Assoc Prof
Mikael Hartman.





Mrs Phoon Meng Chee

**Laboratory Manager
Department of Microbiology**

In this issue, we feature Mrs Phoon Meng Chee, who oversees the Department of Microbiology laboratories. Her impressive 42 years at the School have not dimmed her enormous enthusiasm for virology research and training. In recognition of her dedicated service, she recently received the prestigious National Day Long Service Award 2013.

How has the Medical School changed during your career?

When I first joined, it was called the Faculty of Medicine. I saw it grow from a three-storey building in College Road to the present cluster of multi-storey buildings. It's been amazing to see it evolve into the leading medical school in Asia.

Share with us more about your work in overseeing the laboratories.

I supervise a team of 25 lab technologists and operations associates, some of whom I specifically train to support the medical and dental practical classes. I also coach some research assistants and students. My other duties include finance, administration and safety-related matters.

For instance, our building MD4 recently underwent a regularisation exercise from October 2012 to December 2013. This involved a major renovation of our building in compliance with the new laboratory safety regulations. Being the point of contact for my department, I was actively engaged in the planning and organisation of this exercise, which involved meeting strict floor-by-floor renovation timelines. Despite the additional responsibilities and many extra hours, this humbling experience allowed me to gain invaluable insight on optimal lab planning and design. My colleagues and I now have the satisfaction of working in a very safe and pleasant environment.

I also enjoy helping to organise social events for the department, including the annual Staff and Student Welcome Party. We have a different theme every year and we take pride in creating food and game stalls customised to the theme. These fun-filled activities promote cordial interactions among us, which is essential for the department spirit.

You are a co-author in 35 internationally refereed papers, on two of which you are first author. In addition, you have co-authored 28 conference papers, three of which won best poster awards. Tell us more about your passion for research.

During my younger school days, biology was always my favourite subject. My curiosity about diseases eventually led to my present interest and passion for virology research on Enteroviruses and Influenza A viruses.

In my career, I have been privileged to be involved in various interesting research projects, such as those performed in response to the unexpected epidemics of influenza; conjunctivitis; and hand, foot and mouth disease. My team and I helped to isolate and characterise the viruses. My aspiration is for our research findings to aid present-day vaccine development.

You have also won numerous awards over the years. Which award is especially meaningful to you?

I received the annual Boehringer Mannheim Award in 1997. This is a national award presented by the Singapore Society of Pathology to recognise a medical technologist who has made outstanding contributions to the practice of any branch of laboratory medicine in Singapore. I was glad that my work had been recognised and this has given me the motivation and aspiration to work harder.

Do you have an overall philosophy that guides your approach to your work?

Success is within reach if you constantly improve yourself and stay positive-minded.

Effects of Early Life Factors on Long-Term Health

The number one concern of many expectant mothers is the health and wellbeing of their baby. So what and how much does one have to eat in order to ensure a healthy baby? Associate Professor Chong Yap Seng from the Department of Obstetrics and Gynaecology shares with us some insight on his research.

Assoc Prof Chong's research focuses on the effects of early life factors, especially maternal metabolism and nutritional adequacy, on the long-term health of an individual. He and his colleagues established the Growing Up in Singapore Towards Healthy Outcomes (GUSTO) patient cohort, the largest of its kind in Asia, to study how early life factors affect development of metabolic and other diseases. GUSTO consists of 1247 Chinese, Malay, and Indian women, who have been followed throughout pregnancy; and their offspring, who are tracked from birth until age three to four.

The theory is that, in a nutrient-poor environment caused by maternal malnutrition or an abnormal placenta, the baby adapts by storing energy efficiently ("thrifty" baby). When the baby is born into a normal nutrient environment, it continues to store nutrients rather than grow in size. Conversely, in a prenatal nutrient-rich environment, such as in a pregnant woman who is overweight or who overeats, elevated insulin levels stimulate growth in the baby and predispose it to become overweight.

Although the effect of early life factors on metabolic disease is still being studied, results have begun to emerge in other areas. Stunningly, more than half of the women were found to be deficient in various vitamins and minerals, which may be responsible for the unexpectedly high rates of maternal gestational diabetes and other conditions in the cohort.

Assoc Prof Chong is also the founding director of the new Singapore Centre for Nutritional Sciences, Metabolic Diseases and Human Development (SiNMeD). His research is linked to the work at SiNMeD, a collaboration among A*STAR's Singapore Institute for Clinical Sciences and the NUS Yong Loo Lin School of Medicine. Research at SiNMeD frequently blurs the lines between different fields to decipher how early life factors such as maternal lifestyle and nutrition before, during, and after pregnancy influence the future health of the individual. These factors may change the way genes are expressed through epigenetic means, in which methods that don't alter the DNA sequence.

About the School of Medicine, Assoc Prof Chong mused, "It is the best possible place to do this kind of work. Although clinical services are central to everything we do, medical research is also highly valued here."

"The developing foetus represents the phase of life with the fastest cell division. If something goes awry during this period, it's more likely to have an effect than at other times in a person's life."

Assoc Prof Chong Yap Seng,
Department of Obstetrics and Gynaecology;
and founding director of SiNMeD

How the GUSTO study results can be applied to improve health and prevent disease:

- Initiate education programs to inform women about potential long-term effects of pregnancy behavior.
- Change healthcare policy to test all pregnant women for gestational diabetes, instead of only those at risk (current practice).
- Implement interventions in the form of exercise and healthy eating.
- SiNMeD and food companies are collaborating to evaluate role of nutrition in metabolic disease, allergy, and neurodevelopment, with eventual goal of producing foods that provide optimal nutrition for each individual.

9th NUS Student Achievement Awards

24 Jan 2014 was a night of celebrations and glitz at the University Cultural Centre for 850 guests as they witnessed 51 award recipients going on stage to receive their accolades at the 9th NUS Student Achievement Awards. Organised by the Office of Student Affairs, this annual event recognises exceptional individual students or student groups who have made noteworthy contributions to the University, outside academia.

Our medical students have yet again done us proud by being amongst the awardees selected from a total of 128 nominees based on a strict set of criteria. This year's award categories included Leadership, Projects (Arts & Culture), Projects (Community Service), Projects (New Initiatives) and Competitions.

The Projects (New Initiatives) category is a newly added category, and Project Inspire, an initiative by the Medical Society, was one of the awardees. The Medical Society publication directorate successfully published 'Hearfelt' that provided a platform for established doctors to share their valuable experiences with patients. The project is also a product of the students' continuous effort to support the Christine Chong Hui Xian Bursary.



Children of Cambodia committee members receiving the Gold Award in Projects (Community Service) category.

Other initiatives by our students have also received a total of one gold and three silver awards under the category for Projects (Community Service). They are Children of Cambodia (Gold Award), Constructing Care Collaboration (Silver Award), Project F.L.Y (Silver Award) and Project Sa'bai (Silver Award). The Medical Society was also presented with the 'Recognition for Campus Vibrancy' and 'Special Commendation' certificates'.

The Medical School would like to congratulate all our winners in the ninth NUS Student Achievement Awards. Our medical students are indeed commendable for their conviction and dedication to their work beyond the classroom. They have undoubtedly exhibited the spirit of all-round excellence through their tireless devotion to contributing to society whilst achieving academic brilliance.

It is truly heartening for the team to see our original goal fulfilled. That is, to celebrate the achievements of our Singapore doctors and to inspire the next generation.

**Liang Sai (Phase III Medical student),
Team Leader of Project Inspire**

Earth Hour 2014

On 29th

March 2014, NUS Yong Loo Lin School of Medicine joined the global movement in protecting the planet, again.

Since the medical school supported the Earth Hour in 2013, the School had saved 124,320 kwh for a period of a year. That is equivalent to powering 42 units of 3-Room HDB flat.

The School continues to make a difference this year by switching off lights for one hour for MD 4, MD 5, Centre for Translational Medicine (CeTM), MD 7, MD 9, MD 10, Clinical Research Centre(CRC) and NUHS Tower Block.

Supporting Earth Hour for the second time, the School will carry on to seek ways to further implement initiatives to save more electricity, and be part of the communities from across the world committing their efforts to protect the planet.



EARTH HOUR

Before
Earth Hour



During
Earth Hour



4th Annual Graduate Scientific Congress

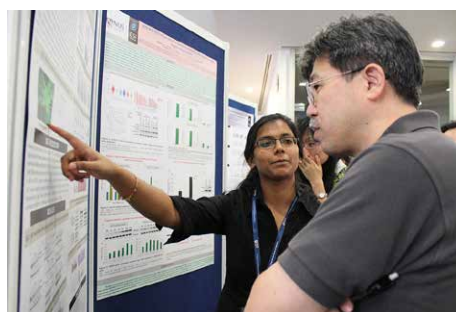
11 March 2014, the Yong Loo Lin School of Medicine 4th Annual Graduate Scientific Congress (AGSC) was successfully held at the NUHS Tower Block Auditorium, attracting an overwhelming crowd of 450 participants. This highly anticipated event was organised by a group of exceedingly dedicated medical, nursing and pharmacy graduate student volunteers to promote scientific advancements. Their goal was to provide a common platform for basic science and clinical researchers of different disciplines, to communicate and exchange ideas.

This year's theme "Exploring Science, Advancing Medicine" was inspired by the diversified research areas our students and colleagues are immersed in. The congress received overwhelming responses from students and staff across the Medical School, Saw Swee Hock School of Public Health, Faculty of Dentistry, Wong Hock Boon Society, Cancer Science Institute of Singapore, Alice Lee Centre for Nursing Studies and the Department of Pharmacy. A total of 113 representatives from more than 18 different departments presented their work in posters and oral presentations.

The event highlights were two plenary keynote lectures by the eminent scientists, Professor Nicholas Gascoigne (Head, Department of Microbiology) and Associate Professor Allen Yeoh (Senior Consultant, Department of Paediatrics). Both speakers shared mind-provoking accounts of their respective dynamic career journeys, a true inspiration for all researchers to pursue their aspirations and dreams.



Dean, Assoc Prof Yeoh Khay Guan giving the welcome address.



A graduate student (center) engaging the audience in her research presentation.

“ We were humbly pleased to pull through the congress successfully. The whole experience has been an adventurous journey with unpredictable challenges along the way. Nevertheless, there was great enthusiasm and synergy within the team. Undertaking this project has resulted in the most enriching, unparalleled and satisfying experience for all of us. ”

4th AGSC organising committee members, Tham Yih Chung (PhD student, Department of Ophthalmology), Lim Fui Ping (PhD student, Alice Lee Centre for Nursing Studies) and Sweelin Chew (PhD student, Department of Biochemistry)

Striking Gold

Coming in first at the 2013 Southeast Asia (SEA) Games marathon, alumnus Dr Mok Ying Ren (Class of 2012) became the first Singaporean man to ever win a Gold medal in SEA Games marathon history. Ying Ren is no stranger to the podium, having clinched Gold in the SEA Games triathlon event back in 2007. MediCine caught up with him to find out more about the athlete within the doctor and his sights on the upcoming Olympics 2016 in Rio.

THE DOCTOR

I'm currently serving as a medical officer in the Singapore Armed Forces (SAF). I will be focusing on the sports medicine aspect of training our soldiers together with my seniors at the soldier performance centre of the SAF.

When I was younger, I aspired to become a doctor because I wanted to be in an occupation that involved human interaction and science. I had a keen interest in biology and as an athlete, I enjoyed the study of the human body and how it can run into problems. Being a doctor also equipped me with the skill to help others at their lowest points in life and I find much satisfaction doing so.

THE ATHLETE



Dr Mok Ying Ren running for Singapore in SEA Games 2013.
Photo: Ghana Segaran

I started off as a swimmer in primary school. I swam the distance events of 1500 metre free-style and 200 metre butterfly. I kept up with my swimming in secondary school, but I also tried my legs out at cross country running which I did reasonably well in. In junior college, I got bored of swimming in the pool daily and that was when I decided to try out triathlon.

Training for the 2007 SEA Games triathlon event during my medical studies was a challenging period. I stayed in Sheares Hall in NUS and that offered me a lot of convenience in terms of training and cutting down transport time since my home is in Tampines. Thus, I could devote three to four hours to training daily. This usually takes place twice a day in the morning before school and in the evening after lessons. It took me quite a lot of discipline and I needed to fight off significant peer pressure with the large number of late night activities at the hostels. I was fortunate that one of my hall neighbours was a triathlete as well and we did some training together.

Some of the hardest training I did involved brick training - doing cycling and running training one after another. I remember bringing my cycling trainer to the track in the hot 1pm sun to do repetitions of cycling and running at the track under the hot sun to simulate the hot weather conditions in Thailand, the host country of the 2007 SEA Games.

... continued from previous page

I did triathlon for a fair number of years before I decided to switch my focus to running which suited my busy schedule much better. Unlike triathlon, running training can be done anytime and almost anywhere. All you need is a pair of shoes.

THE HISTORIC MARATHON GOLD

It was a very unexpected medal, much more a win. I enlisted into the medical officer cadet course 2 weeks before the SEA Games and it was not a walk in the park. Despite fantastic support from my course mates and instructors, the course was still not easy - military training is and should be tough to train good soldiers and I was determined to do whatever is required of me to perform well as a medical officer in the SAF. During the exercises, I suffered from back aches and also had a hacking cough prior to leaving Singapore.

I also left Singapore one day before the race and had to endure a six-hour bus ride to Nay Pyi Taw. I was on pain killers for my back ache and cough syrups. I wasn't very positive of my chances when I found out that previous year's gold, silver and bronze medallists are all present. I was mentally prepared to finish out of the medal

table. Moreover, the recce at 6pm that day did not give me any confidence when I saw the five rounds of rolling hills. I decided to just put in my best effort and see where it will lead me to.

On race day, all of us racers stuck closely together in a group. In the final two laps several of the runners broke away and built a huge gap between us. I decided to pace steadily as I felt it was within my limits. Eventually, I was surprised to see my competitors slowly dropping back in the last four kilometres and eventually overtook my final competitor in the final kilometre. It was so close!

MAKING RIO A REALITY

My plan is to take a year off after national service to train full time to attempt to qualify for the Olympics in 2016 for the marathon event. Running in the Olympics is every athlete's dream and aspiration. To represent Singapore at the highest level of sporting competition would be such an honour. For me it is also about finding how far I can go in my running career. To qualify for it, it takes a long term uninterrupted block of training from now till then and lots of patience. There may be stumbling blocks along the way and it is important not to give up. My key goal is to not get injured so as to keep my training as consistent as possible.



Photo: Mok Ying Ren

May to July

Date	Event & Venue
May 10	Singapore Medical Association 55th Annual Dinner <i>Venue to be confirmed</i>
July 3	Medical Dinner Fairmont Hotel Singapore
July 12	Commencement Ceremony 2014 University Cultural Centre, NUS
August 11	White Coat Ceremony University Cultural Centre, NUS

Details may be subject to change at the discretion of the respective departments without prior notice.

3

Calling all alumni!

Steps to Stay Connected



1

Update your particulars



with us via email (alumni.med@nus.edu.sg) and receive the latest news and events around school

2

Contact Us



to plan your next class gathering!

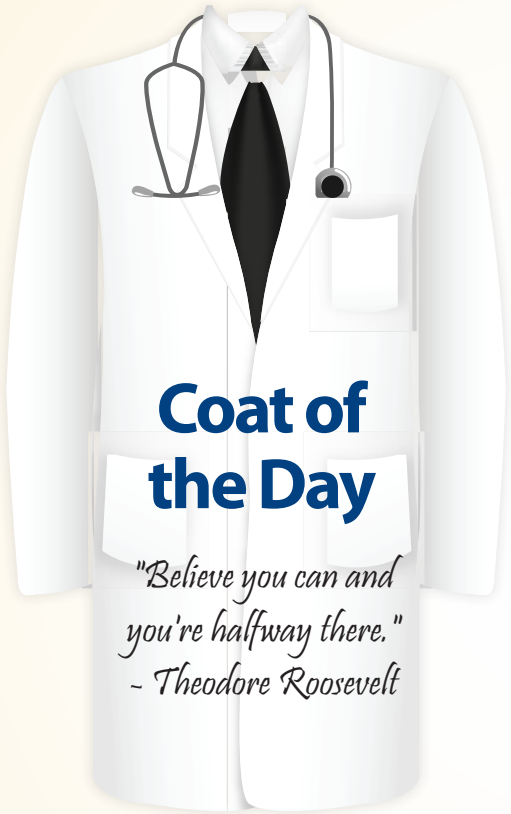
3

Choose your part/role



in shaping the next generation of doctors.

- Admission selection committees
- Career guidance to students
- House mentor
- Mentor for student initiatives



Yong Loo Lin
School of Medicine

The Yong Loo Lin School of Medicine is the first academic body in Singapore's history dedicated to tertiary education. Established in 1905, it has the honour of being the foundation of what has now evolved into the National University of Singapore. The School is a strong component in the University's Mission to advance knowledge and foster innovation, educate students and nurture talent in service of Singapore and society.

White Coat Humour

A man was just coming out of anaesthesia after an operation in the hospital, and found his wife sitting at his bedside. His eyes fluttered open, and he murmured, "You're beautiful." Flattered, the wife continued her vigil while he drifted back to sleep. Later, he woke up and said, "You're cute." Startled, she asked him, "What happened to 'beautiful'?" He replied, "The drugs are wearing off."

Picture Quiz

The Results are out!

The correct answer for the last issue's Picture Quiz is:



Children's playground at NUH Main Building Level 4

Congratulations to our three winners!

- Fong En Li Norman (*Class of 2017*)
- Ooi Tong Li (*Class of 2017*)
- Hannah Ng (*Class of 2017*)

Winners will be notified by email on prize collection.



Where am I?

Submit your answers to:
alumni.med@nus.edu.sg
Contest ends on:
1st June 2014

First 3 correct answers will win a **\$10 Starbucks Card** each!
Multiple entries are not accepted.

MediCine

is brought to you by the
Yong Loo Lin School of
Medicine, Dean's Office.

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