

NUS OPEN HOUSE08

features:



*New academy for
pharmaceutical industry*

*Working together
with faculty -
Alumni find ways
to get involved*



Faculty of Science

*Cultivate passion
Catalyze change
Create future*

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OmniSci

May 2008

News from Faculty of Science,
National University of Singapore

OmniSci is a production of the Faculty of Science to inform alumni and friends about the current programmes and activities in the Faculty.

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OmniSci

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The views and opinions expressed are those of the authors and do not necessarily represent the views of the Faculty of Science or the National University of Singapore.

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Dean's MESSAGE

In this issue of OmniScience we focus on the people in the Faculty of Science.

A/Prof Lim Tit Meng has been Vice-Dean at the Faculty of Science Dean's Office since 2002. In February, he was seconded for two years to the Science Centre as Assistant Chief Executive (Education Programmes). His untiring efforts to work with staff, students and in the promotion of science in schools will be stepped up to a higher level in his new position.

The University highlighted the achievements of our own in the University Awards, and the Faculty of Science once again dominated the awards ceremony with a total of five awardees. A/Prof Sow Chong Haur was given the Outstanding Educator Award. Among his efforts is the setting up of the very successful Physics Demonstration Lab. He has also been an active mentor for the Science Research Programme for junior college students. This year his team from NUS High School clinched a Gold medal at the Singapore Science and Engineering Fair, and went on to win first place in the Intel Science and Engineering Fair in the USA. Professor Shen Zuwei was named Outstanding Researcher, and Dr Peter Ho and Associate Professor Loh Kian Ping were awarded the Young Researcher Awards. At the same ceremony, Professor Goh Suat Hong was conferred the honour of Emeritus Professor.

We must also thank Alumni for their invaluable connection to the wider world. They are a tireless bunch who give career and industry talks, counsel prospective, interview incoming and give advice to graduating students. Not to mention, they certainly add humour and colour to Commencement. Alumni add reality to our ivory tower.

We certainly owe our place here to students. Recently, we launched the Science Student Fund for students who suddenly find themselves in financial difficulty. This fund gives back to the community by using the earnings from the endowed government matching grant when donations are made to the Faculty. Your donations to the Faculty will be used to benefit this fund.

Professor Andrew Wee
Dean, Faculty of Science



Working together with faculty

Alumni find ways to get involved



Every year in March, a small group of Science alumni stand before an audience of young and eager 18 year olds. Their message, "Come and join me." This year, four alumni joined the Dean, Professor Andrew Wee, in his message "The Sky is no Limit". They related stories of their student life and the training in Science that has prepared them for their lives.



Alumni have found other ways to get involved and give back to the Faculty that has been so much a part of their formative years.

Admission into NUS has become more liberal in recent years. The majority of students are still admitted with their A level results. The Faculty is now at liberty to admit 10% at our discretion. These students are admitted based on, among other criteria, an interview. We have found alumni to be an invaluable resource for the interview panel. Each year about 20 alumni volunteer for this role. They bring with them industry experience. Some of the qualities which they find important have surprised the faculty members who sit with them for these discretionary interviews. Discretionary interviews begin at the end of April and end in mid-May.

The grandest event in the NUS calendar must certainly be commencement. Commencement is held during the first two weeks of July. The Faculty of Science invites alumni to take part in commencement in several ways. The Faculty is so large that we take up four ceremonies. We invite one commencement speaker for each ceremony. Alumni are also invited to form the academic procession.

Besides these formal events, many alumni find time to add value to the whole educational experience for our Science students. In the past, alumni have participated in industry talks, career planning workshops and networking sessions.

Open House 2008 alumni guest speakers

*Dr Audi Fong, BSc (Merit) 1995,
BSc (Hons) 1996, PhD 2001
Senior Assistant Director,
Ministry of Trade & Industry*

*Dr Christopher KC Syn, BSc (Hons) 1996,
PhD 2001
Forensic Scientist,
Health Science Authority*

*Dr Bernard Leong, BSc 1998
Partner, Thymos Capital LLP*

*Eric Sandosham, BSc 1994, BSc (Hons)
1995, MSc 2002
Director of Decision Management,
Citibank Singapore Ltd*

*Want to get involved and
give back? To find out how,
please contact Mr Perry Hee
at 6516 1468 or
email: sciheep@nus.edu.sg*

Reflections

*Tan Meng Chwan –
on my life's journey*

◆ *By Tan Meng Chwan
MSc 2003, PhD 2007*

My undergraduate studies began in engineering at NUS under an SAF scholarship. I joined the air force as an engineering officer and was with the SAF until recently, when I joined NUS as an NUS-Overseas Postdoctoral Fellow.



I was always interested in physics. However, SAF offered me a scholarship with terms that I could not refuse, and since engineering is really an applied form of physics, I took it. That was in 1994. Interestingly enough, although I was in engineering, I chose an honours project on electromagnetic wave theory, a central topic in theoretical physics. In addition, I made some groundbreaking discoveries, and my results were presented at an international IEEE conference on Antennas and Propagation in Atlanta in 1998.

After serving the SAF for 5 years, I decided to go back to school to do what I had always wanted to do – Physics. Although there were misgivings about being accepted, I decided to give it a shot. Indeed, thanks to my honours thesis, I was accepted into the MSc course in 2001, part-time, as I still had to keep my day job.

In 2003, I learnt that NUS had a part-time PhD programme for working people like me. Having thoroughly enjoyed the MSc, I enrolled in the PhD programme. My official supervisor, Edward Teo, was open to my preference when I told him that I wanted to work on a frontier topic in theoretical physics such as string theory. Although this topic is not exactly his main area of expertise, he said that he would try his best to help me anyway. For the next two years from 2003 to 2005, I taught myself string theory whilst trying to juggle my day job in the air force.

It was an uphill struggle, and honestly, there were many times when I wanted to give up.

The most trying moment had to be in mid-2005. By then, I had thought long and hard about a problem for my PhD thesis, and had written up an article for publication in the leading Journal of High Energy Physics. To my catastrophic disappointment, the referee had rejected my paper. He pointed out a misrepresented formula that had propagated from another

published reference! I was absolutely devastated. The issue couldn't be rectified.

I quickly realised that the root of my problem was that I had built my research upon the work of others who were less than absolutely credible. As such, I finally decided to read the latest paper by Fields medallist Edward Witten. Witten is regarded as Einstein's successor to the title of the greatest living physicist of all time. Of course, I was absolutely lost on my first reading of his paper. I "mugged" his paper like I was studying it for an exam. Line by line, I verified everything that he had written and finally, I understood it and more – I even spotted several errors in his paper! Initially unconvinced that he could be wrong, I reworked the calculations again and again, only to be assured that I was indeed right. I politely wrote to him about the errors that I had uncovered, and he cordially thanked me for pointing them out.

At that juncture, after having learnt enough from his paper, I was all set to write my own. I quickly wrote a paper which generalised and therefore encompassed his and other people's results. I sent it to Witten. He wrote back to congratulate me on my groundbreaking development, and also acknowledged that I had been right about the errors in his paper. He then asked me to meet him at the Strings 06 conference in Beijing. When we met, we hit it off immediately. Witten even introduced me to all the top string theorists who were present. And I, of course, told them all about NUS and Singapore. I felt proud to be doing this for my home institution and motherland. It was the most exhilarating moment of my life in physics.

Tan Meng Chwan started his life in NUS as an engineering undergraduate because of an SAF scholarship. He has returned to his first love – Physics – and is now an NUS-Overseas Postdoctoral Fellow at the Institute for Advanced Study in Princeton, USA. Here, he reflects on his life's choices and advises us that life is what we make of it.



Within 6 months of the Strings conference in June 2006, I managed to get my first groundbreaking paper published in the most exclusive journal in all of theoretical / mathematical physics, *Advances in Theoretical and Mathematical Physics* (ATMP). My paper was a world's first on the topic of Chiral Differential Operators. This paper preceded Witten's that contained the corrections of the errors which I had pointed out.

By the end of 2006, I had also written three other papers bridging the gap between the mathematical and the physical literature on this subject once and for all. With the first three papers, I completed my PhD thesis, and submitted it for examination in January 2007.

After some deliberation, I asked Edward Witten to be my external PhD thesis examiner. He kindly agreed to do so, and three months later, he returned with a rather encouraging report on my thesis. This led me to seriously consider a major career switch. I had no desire to live in America indefinitely just to do string theory. To me, there is no place like home. After all, my friends and family are all here. Fortunately, my case was made known to the Provost, Professor Tan Eng Chye, who quickly suggested that I take up the NUS-Overseas Postdoctoral Fellowship (NUS-OPF).



Confident from Witten's positive impression of my work, I asked him to take me in as his postdoctoral apprentice at the Institute for Advanced Study.

Although my application was made way past the deadline when all the offices were already occupied, I received his invitation. The invitation was only for a year in AY 07/08, as he would be on sabbatical in 08/09. So, instead of following him around wherever

he went, I decided to broaden my horizons to learn and collaborate with others as well. Hence, I applied to the California Institute of Technology (Caltech) to join another world-class string theorist, Anton Kapustin, whom I had also been in contact with. He kindly agreed to invite me over also.

This arrangement under the NUS-OPF is a "dream come true" for me. One of my greatest aspirations is to be able to do something meaningful for my country and fellow Singaporeans with my intellect. For me, this is to be able to take theoretical physics in NUS and Singapore to unprecedented heights at the international level. By nurturing and encouraging younger generations to follow in my footsteps, we can attain world-class standards in all areas of research, not just applied ones. Doing this extra bit gives me a much deeper sense of satisfaction than just being a successful scientist alone. If I join the rest of the string theorists in America, I would be no different from them. And what would be so special or outstanding about that?

I look forward to my return to NUS, when I can take the best of what I have gathered here in the USA home to Singapore. Ultimately, I hope that with my effort, Fields medallists and Nobel laureates like Edward Witten, Steven Weinberg, David Gross and likes, might someday think of our University as a place to seriously ponder over their research.

SSF

Science Student Fund —
fund used to help students





**Kim was desperate. A month ago, her father passed away in a road accident. She had one more year to go to complete her degree in Life Science.*

The sole breadwinner's family finances were such that Kim needed to borrow some money for the rest of her studies. All avenues for help or even loans she was aware of had timing or other constraints. Kim went to one of her professors for advice. Fortunately, he was aware of the Faculty's recently established initiative the Science Student Fund (SSF).

The Fund was set up for students such as Kim. These students now have access to help directly and immediately or, as in Kim's case, through an alert professor who was aware of such a provision. This is a ready resource for staff who are well placed to give such needed advice and assistance. This is another useful aspect of staff-student relationships which can have long term if not life long benefits for both university and community. Students like Kim, receiving such sympathy and support at such a crucial time in their lives are likely to be even more sensitive and supportive of societal needs in the future.

To set up such a Fund, the Faculty has to rely on the interest – earnings - from MOE matching grants for donations made to the University. The government matching has to be endowed. The earnings could however be used for projects in line with the spirit of the original donations.

The SSF caters to two categories of students. Those such as Kim would qualify for the SSF (Emergency). Their circumstances are totally unforeseen. For example, in her case, it is the death of a breadwinner or a sudden loss of income of the breadwinner through retrenchment or bankruptcy. For such students, their course fees for that year would have already been paid for. They just needed some money for their daily expenses.

The other category is the SSF (Bursary). Students may only apply for an NUS Bursary if all their fees are financed through the several loans available to them. These are the MOE Tuition Fee Loan, CPF Education Scheme, Mendaki Subsidy and NUS Study Loan. Students are sometimes unaware of this restriction. This makes the NUS Bursary unavailable to them. The SSF (Bursary) tides students over until the next financial aid cycle or when they find other means of financing their degree programme.

Since February, the Faculty has have disbursed \$1,000 each to two students under SSF (Emergency) and \$800 to another student under SSF (Bursary). While we may rejoice over much of the progress and prosperity in Singapore we are also mindful that hardship cases are also on the increase. While we take pride at the great strides we have made in both research and teaching to make NUS a world class university we must also be there for those of our students in their hour of need.

NUS is now known for its prestige and passion for research and teaching. Help us to make NUS also a place of compassion. We appeal to alumni and friends of the Faculty to join us by donating directly to this Fund or other Faculty projects where the matching Government contribution would also benefit this Fund.

Donations to the Science Student Fund may be made to the Faculty by cheque payable to "National University of Singapore" (*Please indicate "Science Student Fund"*). All donations to the University are eligible for double tax relief and will attract an equal matching grant from the government.

** To protect the identity of the student, her name and certain circumstances have been changed.*



Two of our three gold award winners in the SSEF 2008

Strong showing by NUS High School in Science and Research competitions

◆ *By Eileen Lim, NUS High School*

NUS High School has had an amazing run of achievements in science and research in the past few months. The school was the overall champion at its first showing in the 20th Singapore Physics Olympiad (SPhO) 2007 in November last year. It continued to bag 8 awards in the 19th Singapore Chemistry Olympiad. This was followed by another 10 awards at the Singapore Science and Engineering Fair (SSEF) held in March 2008.

The School, which sent 15 students for the SPhO, saw 10 of them receiving prizes ranging from an honorary mention to a gold award. Five of these students will go on to represent Singapore at the Asian Physics Olympiad at Ulaanbaatar, Mongolia on April 2008.

Fiona Foo, who emerged as the overall winner in the SPhO, said she enjoyed being able to pursue what she loves studying in NUS High School. She prepared for the Olympiad while staying at

the school's hostel with other classmates last year. "We prepared for the Olympiad at night. It was a relaxed atmosphere and I took it because I enjoyed the subject."

The Singapore Chemistry Olympiad was the school's maiden participation. NUS High School bagged 1 Gold, 5 Silver and 2 Bronze. Two students were selected as part of the team of 4 to represent Singapore in the 40th International Chemistry Olympiad.

The SSEF is a national fair that is affiliated to the Intel International Science and Engineering Fair (Intel ISEF). It is intended for students who had conducted research over the past year to showcase their findings. In SSEF 2008, NUS High School students exhibited their excellence and passion in Science through various research topics – Biochemistry to Physics & Astronomy, and Animal Sciences to Engineering. Out of the 10 awards, three groups of students attained Gold awards, while two groups obtained Silver awards, and the remaining groups secured 3 Bronze and 2 Merit awards. Performing well at the national level, our Gold

award winners, Zhao Ye and Zhai Weichao will be representing Singapore at the prestigious ISEF 2008 in Atlanta, Georgia in May 2008.

NUS High School is a relatively young school. Its outstanding achievements indeed fulfill the objectives for which it was founded upon: nurture young talent in Mathematics and Science.

The school aims to provide more opportunities for students to pursue their passion and develop their talent in the future.

NUS High School's SRP project wins SSEF and will go to Atlanta for ISEF

◆ By Lim Kim Yong, NUS High School

The Science Research Programme (SRP) is one of the first programmes initiated to provide opportunities for secondary and junior college students to experience real research under the guidance of a professional scientist. To date, similar programs that have sprung from the same motivations include the A*STAR attachments and the Science Mentorship Programmes. SRP, however, retains much of its allure as the premier programme that provides students a quality experience in research.

This year, two students from NUS High School of Mathematics and Science worked under the supervision of NUS Associate Professor Sow Chornng Haur on a novel method to modify and pattern nanomaterials. Instead of employing the typical routes of laser-writing, physical etching or wet chemistry synthesis methods, the students used solar power to modify and convert copper oxide nanomaterials from one form to the other. By focusing sunlight using a hybrid telescope-microscope lens system, they were able to concentrate sunlight onto a small area of as-grown copper oxide nanowires. Such a procedure changes the structure of the nanowires into nanoballs. They were surprised to discover that the nanoballs had been converted to a different oxidation state and a different crystalline structure from the original nanowires.



Prof Sow Chornng Haur showing the ropes of research to Zhao Ye and Weichao

This nanoengineering technique of using the sunlight directly allowed the team to garner a gold medal in the Singapore Science and Engineering Fair (SSEF) 2008. In addition, the team was also selected to represent Singapore in the Intel International Science and Engineering Fair (Intel ISEF) to be held in Atlanta, United States in May 2008.

So what do the students have to say about their SRP experience?

Zhao Ye, 18 comments on the experience: "Being scorched under the sun during the hottest time of the day, this SRP project has not been an easy one. It really tested our perseverance and patience.

We also had the opportunity to know and use many of the equipment that are not available in high school such as TEM, SAED, Raman Spectrometer, Field Emission Equipment etc.

We love the environment in the lab that we were working in. Our professor is always very enthusiastic and supportive of our work but a certain amount of independence is expected of us. This is actually good as it never fails to give us the feeling of accomplishment when we were able to obtain our results successfully."

Having been through the paces of experimental work, the students also prepared hard for the presentations at the Science Fairs.

Zhai Weichao, 18, has this to say about the experience of joining science fairs: "The atmosphere during Science Fairs is electrifying. You get to talk to other participants including other SRPians and also the judges. It is very possible to get even more ideas after a Science Fair, some of which we have not even thought about before."

So, how has the SRP influenced youngsters in terms of a career choice? Already, the program can boast to have produced some of our outstanding faculty members. But for now, Zhao Ye and Weichao are already considering a research career in mathematics and science. That probably tells something.

** The team from NUS High School clinched the first prize at the Intel ISEF. This is the premier science competition in the world exclusively for students grades 9-12. It annually provides a forum for more than 1,500 students from over 40 countries to showcase their independent research*

Off To Other

Pastures

Associate Professor Lim Tit Meng



A scholar, teacher, researcher, entrepreneur, mentor, administrator and friend. Associate Professor Lim Tit Meng is all these and more to those of us who had the privilege of working with or studying under him. This feature reflects on the many talents of the man whose name has become synonymous with quality service in the Faculty.

As a young lecturer in his early career in the then Department of Zoology, A/Prof Lim took his many responsibilities in his stride, juggling his teaching load with research and departmental administration. His passion for teaching was frequently rewarded with accolades from his former students; during the period 1993-2002, he garnered an impressive 8 teaching excellence awards both at Faculty and University levels, and was listed in the NUS Top 100 Excellent Teachers, 2002.

Over the past 20 years, his research work spanned diverse areas in developmental biology (molecular mechanisms in cell death and aging, Parkinson's disease, acute leukemia) and biotechnology (tissue engineering, carbon nanotube-based biosensors, lab-on-chip devices). He was among the first multidisciplinary researchers who crossed discipline domains to collaborate with engineers and clinicians more than a decade ago. These collaborations resulted in many refereed research papers in Tier-1 journals, both as co-investigator and principal investigator. At least five patents have been granted with him as a co-inventor. As a prolific researcher and educator, he has supervised no less than 14 MSc students, 15 PhD candidates and 5 post-doctoral fellows.

As a passionate science communicator, A/Prof Lim also left an indelible mark in the development of Singapore's young science talents. As a much sought after speaker, he is a familiar face in many junior colleges and schools, speaking on topics in life sciences, innovation and creativity. He has given public talks at platforms like Science and Technology Month, Excel Fest, Science Fairs and school seminars for parents. He has also given many radio and TV interviews on scientific issues, both in English and Chinese. In addition, he served regularly as a judge, some times as the Chief Judge, in many local and overseas science fairs and Biology Olympiad. And as a mentor, he has supervised countless student projects and in the process, influencing many students to pursue careers in science and technology.

His entrepreneurial spirit has been well demonstrated in his pioneering efforts as a founding members of the Institute of Molecular Agrobiolgy (which later became the Temasek Life Science Laboratories); the Special Programme in Science, the Core Curriculum (which later became the University Scholars Programme), and the Biosensor Focus Interest Group (a multidisciplinary research consortium). At the turn of the Millennium, recognising the need to promote and to bring about awareness of the life science revolution, he organized



and ran many life sciences programmes for private corporations and the general public. He even pioneered the formation of a Kids Club for his children and his friends' children so that they could grow up developing a passion for learning.



Administration is another area he excels in. Following a stint as Deputy Head in the Department of Biological Sciences, A/Prof Lim went on to be Vice-Dean at the Faculty of Science from June 2003 to February 2008. Reflecting his many talents again, he held concurrent portfolios overseeing the faculty's finance matters, human resources, alumni affairs, student outreach, faculty workplace health and safety management, and crisis management. He was also instrumental in the Faculty's effort in popularising science among schools and the public by co-organising the very successful 'Dinosaurs: A T-rex named Sue and Friends' exhibition at the Science Centre in 2006, and the 'Cultures of Creativity: Nobel Museum Centennial Exhibition' in NUS from October 2006 to February 2007.



It is not surprising therefore that A/Prof Lim was recently approached and offered the position of Assistant Chief Executive Officer of the Science Centre Singapore. Following his conviction that he could constructively contribute to the Nation in promoting science literacy and propagating a passion for science and technology, he took on a 2-years secondment to help initiate new directions in the Science Centre. In his new appointment he will be instrumental in implementing policies and plans that will no doubt have a profound influence for many students in Singapore. In particular, A/Prof Lim will also help develop the proposed new Science Centre at Jurong Lake.



A/Prof Lim continues his close ties with the Faculty. True to his calling, he continues to hold office in the Department of Biological Sciences so that he may continue to teach, mentor and inspire students, and continue to be at the forefront of on-going research in his field.

Department of Statistics and Applied Probability

Celebrates 10 Years



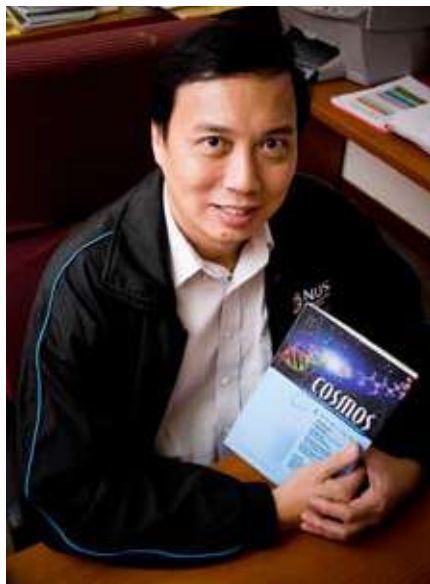
The Department of Statistics and Applied Probability celebrates its 10th Anniversary this year. As part of the celebrations, a one-day symposium was held on 25 January 2008 at the University Hall Auditorium. The Special Guest of Honour for the symposium was NUS Provost, Professor Tan Eng Chye.



Other guests of honour included the Dean of Science, Professor Andrew Wee and Professor Saw Swee Hock. The symposium was attended by 90 participants including current staff and students as well as ex-colleagues and alumni. After some opening remarks by the Provost, Professor Louis Chen proposed a special vote of thanks to Professor Chong Chi Tat who was instrumental as the then Provost in setting up the department. A presentation on the history and development of the

department given by the current head Anthony Kuk was followed by some reflections from Professors Tailen Hsing and Young Truong, the first two heads of the department who came back from the USA especially for the occasion. Eight talks were given subsequently by various speakers to showcase the excellent research done by members of the department and the myriad of applications of statistics.





We all know professors teach. And they do research. But what else do they do? Well, we can find them sometimes in their labs. And they have office hours. They attend conferences and give public speeches. And sometimes they just disappear – the office says they are in a meeting. And they spend many hours at committee meetings.

OmniScience caught up with Professor Andrew Wee, Dean of the Faculty of Science to ask him for a little-known task that takes up his time. He chose to discuss his responsibilities as an editor.

I am a surface and nano-scientist. It is thus natural that the journals that I play an editorial role are in these fields.

In 2002, nanoscience was a new and rapidly developing field. I was approached by the publisher, World Scientific, to help start the *International Journal of Nanoscience*. This interdisciplinary, internationally-reviewed research journal covers all aspects of nanometre scale science and technology. Articles in any contemporary topical areas are sought, from basic science of nanoscale physics and chemistry to applications in nanodevices, quantum engineering and quantum computing. I am now co-managing editor together with J G Hou at the University of Science and Technology of China and Anvar Zakhidov at University of Texas at Dallas, USA.

I am involved in the entire process of managing the processing of contributed manuscripts. This includes sending the manuscripts to suitable reviewers,

What Do Our Professors Do?



and making decisions on whether or not to publish a manuscript. In addition, I am involved in policy decisions as well as general promotion of the journal.

I play a similar role as regional editor for *Surface and Interface Analysis* and editor-in-chief for *COSMOS*.

Surface and Interface Analysis is published by Wiley. I was appointed to handle the increasing number of manuscripts being submitted from South-East Asia and China. This journal is devoted to the publication of papers dealing with the development and application of techniques for the characterisation of surfaces, interfaces and thin films.

COSMOS is the Journal of the Singapore National Academy of Science. It publishes invited review articles with the aim of promoting interdisciplinary research in Science and Mathematics.

In addition, I am also a member of the editorial board of *Surface Review and Letters*, *Current Nanoscience* and the newly launched *Research Letters in Physics*, all of which are international journals.

Many students go into science thinking that language is not an important skill for scientists. Even for a highly technical science like Physics, we spend a large amount of time writing papers/proposals, or editing other people's writing.

Besides editing, I also get requests by editors to review manuscripts from other journals. I also write and edit papers, invited reviews, book chapters and books. One of the most important writing that I do is writing research grant proposals and reports. And I do a lot of that since experimental surface science research is expensive.

Many of our academic staff are involved with editorial boards of various scientific journals. They spend long hours in editorial and review processes, since the participation of scientists is crucial to the success of the entire scientific peer review process.

What do our professors do?

For the last two years, and almost every year before, Science has been honoured at the NUS University Awards as Outstanding Educator Award winners. In the next *OmniScience* we look at another aspect of a professor's life – teaching. And I am sure you will be amazed at the range of teaching our professors are engaged in.

Head of Biological Sciences, Prof Hew Choy Leong, retires

Professor Hew Choy Leong, BSc 1963, stepped down from the headship of the Department of Biological Sciences on 31 March 2008,

after providing strong leadership to the Department of Biological Sciences since late 1999. For more than 8 years, he raised the international status of the department with his unique brand of leadership.

Prof Hew is an alumnus, who obtained an MSc from Simon Fraser University (Canada) and a PhD from the University of British Columbia (Canada) and built a successful career in academia in Canada.

Prof Hew's research and teaching interests have been in the biology and biotechnology of antifreeze proteins, and in transgenic fish, molecular endocrinology and proteomics. His research laboratory in Canada was among the first to clone various fish antifreeze proteins, solving the structure of these proteins and generation of fast-growing transgenic fish.

Since his appointment in NUS, he has developed strong platform technologies in structural biology and proteomics to study the structure and function of viral proteins as well as cancer biomarkers.

"With the recent emphasis in life sciences and translational research, it is both an exciting and challenging time to be back in Singapore. I am happy that DBS is an active player and is making important contributions."

The Faculty of Science would like to express our sincere thanks to Professor Hew Choy Leong for his distinguished service to both Department and Faculty. We wish him all the best in his future endeavours.





Associate Professor Prakash Kumar becomes Acting Head of the Department of Biological Sciences

Associate Professor Prakash Kumar took over the helm of the Department of Biological Sciences (DBS) as Acting Head on 1 April 2008.

A/Prof Kumar's own research areas include plant development, plant physiology and molecular biology. He has a BSc (Hons) from Mysore University (India), an MSc from Madras University (India), and a PhD from University of Calgary (Canada).

He joined the then Botany Department at NUS in September 1989. During the 19 years he has been with NUS, he has built up an active research programme. He currently serves on the editorial boards of three journals within his research field.

A/Prof Kumar served as Deputy Head of the Department from October 2000 to December 2005. He was an active member of the Life Sciences Undergraduate Curriculum Implementation Committee that successfully launched the new Life Sciences curriculum in the year 2002. Subsequently, he served as the Faculty Associate (Education) in the Provost's Office from January 2006 to January 2007. Among other responsibilities, he chaired the Board of Undergraduate Studies and the Board of Graduate Studies during that period.



Currently, DBS is one of the largest departments in the Faculty of Science and has very active research and teaching programmes. In his present capacity as the Acting Head, A/Prof Kumar hopes to be able to continue the good work of former head Professor Hew Choy Leong in leading the department.

A/Prof Kumar will also take over as Co-Chair of the Life Sciences Undergraduate Program Committee.

New Academy for pharmaceutical industry

◆ Source: NUS Newshub

There is a growing demand for safe and effective health products, as well as more stringent scientific standards for regulating such products in the pharmaceutical industry. The Singapore Academy of GxP Excellence (SAGE) was launched on 25 March to meet such demands, with aims to train high quality workforce and promote best pharmaceutical practices.

The Academy is a joint collaboration between NUS, the Economic Development Board (EDB), the Health Sciences Authority of Singapore (HSA) and the Singapore Workforce Development Agency (WDA) as well as leading pharmaceutical companies. It will develop training programmes in a collaborative educational environment involving major stakeholders – academia, health authorities and industry – based on the GxP guidelines.

G stands for “Good” and P stands for “Practice” with the practice descriptor “x” in between. They are guidelines in manufacturing (GMP), clinical research (GCP) and vigilance or health product safety (GVP) to ensure safe, quality and effective products such as medicines, cosmetics, traditional medicines and medical devices for public use.

Said Associate Professor Chan Sui Yung, who heads SAGE as well as the Department of Pharmacy:

“The faculty members at SAGE will be drawn from the academia, health authorities and major industry players in Singapore and overseas. It will be the first centre in this region that will harness state-of-the-art technologies to deliver global programmes efficiently and effectively. It will continually identify education and training gaps and provide relevant course content.”

Targeting professionals, managers, executives and technicians in the pharmaceutical industry and those who are interested to make a switch to the industry, SAGE will offer continuing education for basic degree holders and those with Diploma and ITE qualifications. The Academy plans to train 300 to 500 professionals per year.



“... a joint collaboration between NUS, the Economic Development Board (EDB), the Health Sciences Authority of Singapore (HSA) and the Singapore Workforce Development Agency (WDA) as well as leading pharmaceutical companies.”



“Targeting professionals, managers, executives and technicians in the pharmaceutical industry and those who are interested to make a switch to the industry...”

Interested applicants can call SAGE at 65168977 or visit <http://www.pharmacy.nus.edu.sg/SAGE.htm>



Professor Sodhi awarded Hrdy Fellowship

The Department of Organismic and Evolutionary Biology at Harvard University awards the Sarah Hrdy Visiting Fellowship in Conservation Biology. The duties of the visiting fellow include teaching a course and/or giving lectures in conservation biology. Additionally, they are expected to conduct research in collaboration with faculty members at Harvard.

For the 2008-09 academic year, Navjot S. Sodhi, professor in the Department of Biological Sciences, was awarded the Hrdy Fellowship. During the fellowship, he will be collaborating with Professor Naomi Pierce on a project entitled "Biodiversity conservation and poor people: is there any hope for consilience?" They will be surveying various protected areas within Southeast Asia and asking people surrounding the protected areas about their attitudes towards biodiversity conservation, whether they harvest resources from the protected areas and what would they need to halt their harvesting activities (e.g. alternative employment or food sources).

In addition, as a Fellow, Prof Sodhi and Professor Paul Ehrlich, Bing Professor of Population Studies at Stanford University, will edit a textbook tentatively entitled

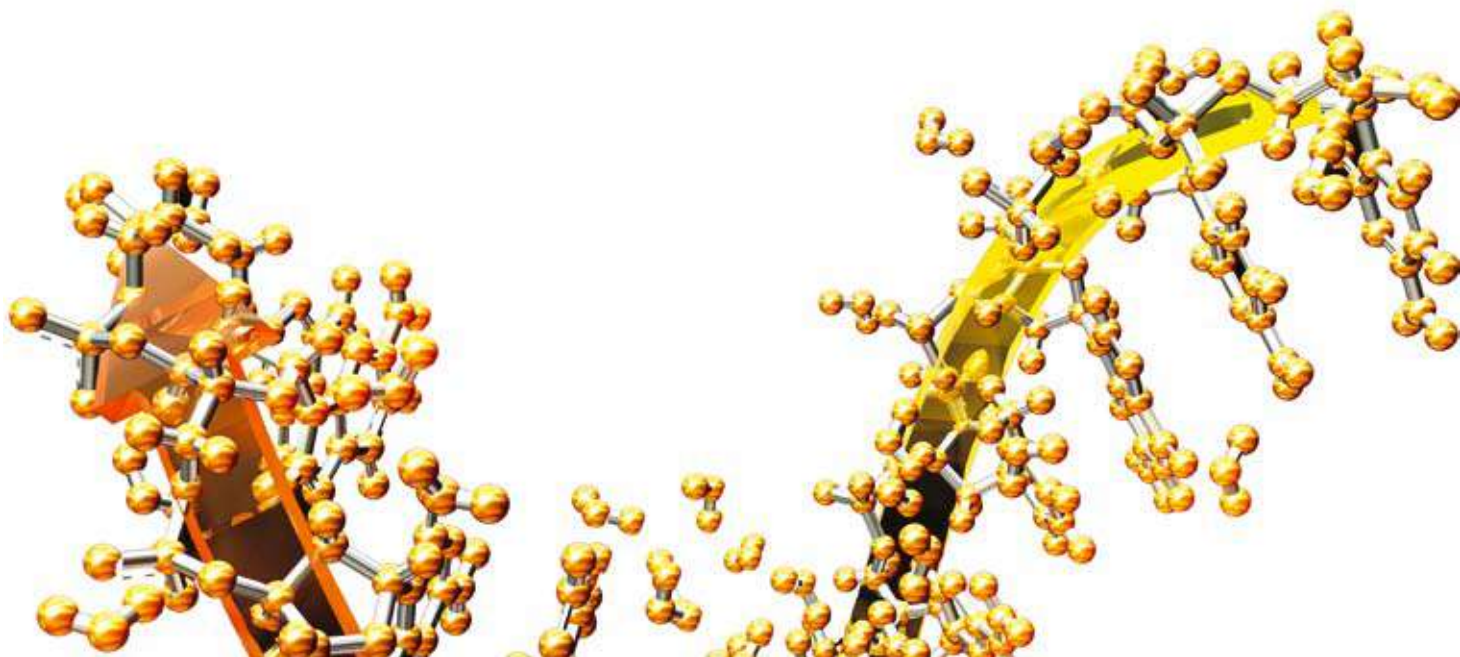
"Conservation Biology for All". They have worked with the Oxford University Press (OUP) on a publication model that will freely distribute the textbook. For the first 12 months after publication, OUP will sell the hard copies to recover cost. At the same time, funds generated through royalties will be used to make gratis books available to scientists in developing countries through the Natural History Book Store. After this 12-month period, the book will be available free on the internet.

Prof Sodhi shares his perspective, "The basic reason for this arrangement is that developing country scientists have been finding it difficult to afford a decent textbook. This is a shame from a conservation perspective, since these are the countries where most of biodiversity is located in the backdrop of unprecedented habitat loss. We are hoping that the book will fill an important knowledge vacuum."

In writing this text book, Prof Sodhi and Prof Ehrlich have approached top conservation biologists to write on specific topics.

Prof Sodhi adds, "We are pretty pleased with the response thus far. Bill Laurance, Kevin Gaston, Dan Simberloff, Carlos Peres, Tom Brooks, David Wilcove, Kai Chan, and Barry Brook have agreed to write chapters."

Prof Sodhi also plans to teach a course in Tropical Conservation Biology while at Harvard.



A*Star provides almost \$9 million in funding by the BIOMEDICAL RESEARCH COUNCIL

The Biomedical Research Council (BMRC) approved \$8,934,353 in funding for projects in the Faculty of Science.

The BMRC was established in October 2000. It supports, oversees and coordinates public sector biomedical research and development activities in Singapore. The BMRC:

- Oversees the development of core research capabilities within A*STAR research units specializing in bioprocessing; chemical synthesis; genomics and proteomics; molecular and cell

biology; bioengineering and nanotechnology and computational biology.

- Actively promotes translational medicine and cross-disciplinary research, as part of its efforts to advance human healthcare.
- Supports biomedical research in the wider scientific community such as public universities and hospitals.
- Engages in human capital development in the biomedical sciences and promotes societal awareness of biomedical research through outreach programmes

Internal Research Funding

The Ministry of Education (MOE) and the University through the Office of Research (ORE) and the Faculty offer research funding to scientists. This year, projects valued at \$5,787, 530 received internal research funding.

World Class Research from World Class Scientists

◆ Source: Knowledge Enterprise online

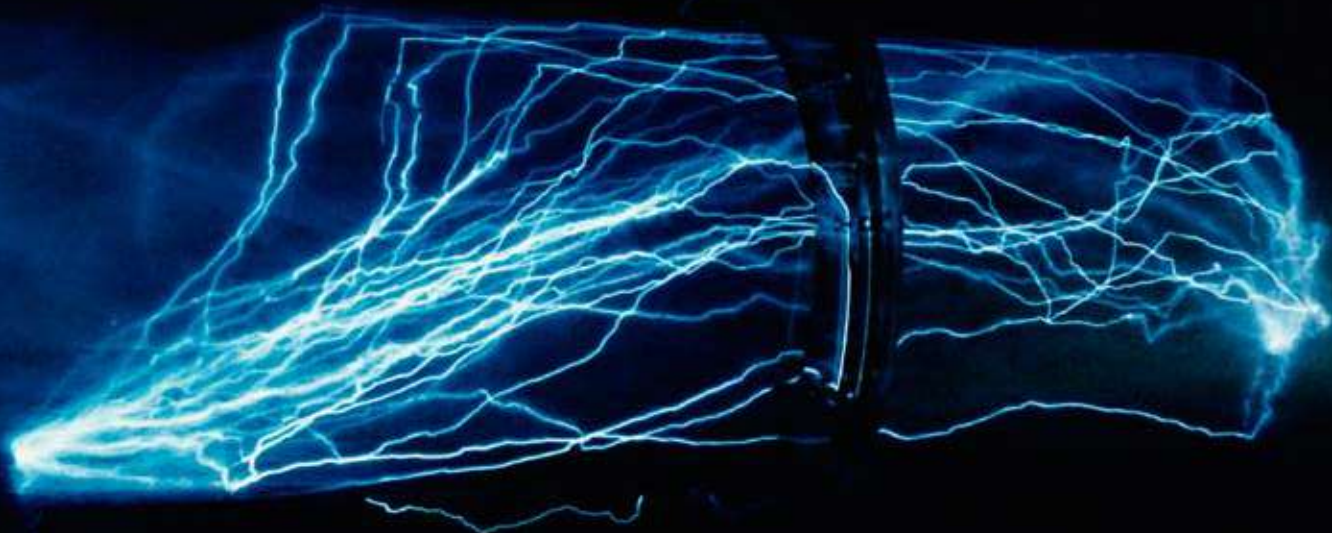
The National Research Foundation (NRF) Research Fellowship launched last May, received applications worldwide. Ten inaugural Research Fellows were selected. These brilliant and passionate researchers will receive up to US\$1.5 million each to carry out cutting-edge research in Singapore.

Dr Barbaros Öezylimaz, Assistant Professor, Department of Physics, is an experimental physicist specialising in the newly emerging fields of spintronics and carbon-based nanotechnology. A Turkish-German scientist, he joined NUS last December after completing his postdoctoral research at Columbia University.

“I was attracted to NUS and Singapore because it is one of the most dynamic places for research. The nanofabrication infrastructures ranging from a number of state-of-the-art clean rooms to an in-house synchrotron facility provide the necessary means to compete with the world’s leading institutions. Singapore reminds me of the other great city, New York, but with sunshine all year round... a tropical version of Manhattan,”

Dr Cynthia He, Assistant Professor, Department of Biological Sciences, is probably the first scientist in the world to image a *Trypanosoma brucei* cell (responsible for the parasitic African sleeping sickness) through an entire cell division cycle that lasted almost 10 hours under a microscope. During the process at Yale University, she discovered a structure in the cell which is responsible for its duplication.

In the next few years at NUS, Dr He aims to unravel the mysteries of this structure, further understanding the regulation of cell cycle in this parasite as well as in other organisms. The hope is to develop new therapies to treat these persistent pathogenic organisms.



Temasek Young Investigator Award 2007:

Discovery enables plastic to “conduct” electricity

◆ *Extracted from: NUS Newshub*

Scientists from the NUS Organic Nano Device Laboratory have created a revolutionary carbon-based solution that enables plastic to “conduct” electricity. The discovery, led by Dr Peter Ho, Assistant Professor in the Department of Physics, will pave the way for plastic electronics applications in next-generation civilian and military devices. For his effort, Dr Ho received the Temasek Young Investigator Award and a \$500,000 grant to advance the research.

The annual award is jointly presented by NUS and the Defence Science and Technology Agency (DSTA) to build up a pool of young researchers in areas related to defence and security.

“It is an honour to know that the research work that my team has been undertaking has the potential to contribute to Singapore’s defence and security,” said Dr Ho.



WINNING TEAM: Temasek Young Investigator Dr Peter Ho (extreme right) and his team of scientists examining the graphene solution.

His team discovered an efficient way to convert graphite – the carbon material that gives pencil their marking ability – into a solution of one atom-thick sheets of graphenes. The solution,

when coated onto materials such as plastics or silicon, produces high-quality conductive film. Potential applications include the electronic paper, chem-bio sensors and wearable electronics.

Dr Ho’s team will explore the use of the graphene material to create large-area robust solar cells that can be pasted onto windows. They will also attempt to turn the graphenes sheets into semi-conductor for applications in plastic electronics.

FACULTY NOTES



New Head for Physics

After a search of many months, the Department of Physics has come home to find its new head. Professor Feng Yuan Ping, originally from China, obtained his PhD in 1987 from the Illinois Institute of Technology. Prof Feng joined the Department of Physics, NUS, in 1990. His research interest is in computational condensed matter & materials physics. He has authored/co-authored more than 200 scientific papers in international refereed journals and authored one book. Over the years, he awarded Faculty Teaching Awards several times and Honour Roll, and the NUS Excellent Teaching Award.

Prof Feng acting head of the Department of Physics for a year since former Head of Physics Professor Andrew Wee became the Dean of Science.

Belated Science Alumni Awards

Science alumni Ms SEETOH Hoy Cheng and Ms Olivia LUM Ooi Lin, were presented with their Science Alumni Award crystal trophies during two separate visits.



Ms Seetoh Hoy Cheng, BSc 1970, BSc Hons 1971, who is Singapore's High Commissioner to New Zealand and the Fiji Islands, was in town and dropped by the Faculty to receive her award on 26 October 2007. Presenting the award at the Dean's Office was Dean of Science, Professor Andrew Wee.

Ms Seetoh was nominated to receive an Outstanding Science Alumni Award in 2005. Despite her busy schedule while in Singapore, Ms Seetoh managed to fit in a visit to the Faculty and had lunch at KR-50 on the NUS Kent Ridge campus with Prof Wee, Vice-Dean Lim Tit Meng, Dean of Students Tan Teck Koon and alumni relations



Consultant Dr Lawrence Chia. During lunch we found out the Dean of Students Tan, who is also an Associate Professor in the Department of Biological Sciences, and Ms Seetoh were contemporaries as Botany undergraduates.

Ms Olivia Lum, BSc 1985, BSc Hons 1986, was nominated to receive a Distinguished Science Alumni Award in 2005. She was presented the award during a lunch at Patara Fine Thai Cuisine at Raffles City by the Dean of Science, Professor Andrew Wee on 12 March 2008. Joining Ms Lum and Prof Wee at the lunch were Vice-Dean Chin Wee Shong, Chemistry Deputy Head Richard Wong and alumni relations Consultant Dr Lawrence Chia.

Ms Lum graduated with a BSc Hon degree in Chemistry. Despite humble beginnings she forged her own way and is now the Group CEO and President of Hyflux Ltd, the leading water filter company in Asia.



Seeing Stars

As part of the UK-Singapore Partners in Science Initiative, the Faculty of Science and the British High Commission jointly presented "An Introduction to Neutron Stars" on 29 February. The lecture by Professor Jocelyn Bell Burnell, Visiting Professor of Astrophysics in the Department of Physics, Oxford University was very well attended. Students from NUS, NTU, schools and junior colleges came to listen to Prof Bell talk about pulsating radio stars (Pulsars) or neutron stars. These are some of the most bizarre and incredible objects in the universe, and have stretched our knowledge of the behaviour of matter and served as clocks to test Einstein's theories. The Lim Seng Tjoe Lecture Theatre (LT27) was full to overflowing.



Visitors to Science

Visits by other universities to NUS and the Faculty indicate our standing among the international academic community.

- Senior Associate Dean for the Sciences in the College of Arts and Sciences at University of North Carolina at Chapel Hill, the Samuel Baron Distinguished Professor of Physics and Astronomy Bruce Carney was here in January to visit the Faculty together with his colleagues to work out an MOU on student exchange.
- Professor Pak Un-Jong, Dean of the Faculty of Liberal Education, Seoul National University, Korea, paid a courtesy call on the Dean on 13 February.
- Professor Ferenc Hudecz, Rector of the Eotvos Lorand University in Budapest, Hungary, and his team, visited the Faculty to discuss research collaborations in early March.
- Also in early March, Rector of Hue University of Agriculture and Forestry Dr Tran Van Minh lead a group here on a study visit.
- Professor Peter Lewis, Vice Dean of Research and International Relations, Faculty of Medicine, University of Toronto, paid a courtesy call on the Dean on 17 March.
- University Kebangsaan Malaysia's Professor Aminah Abdullah of the Faculty of Science & Technology, led a delegation of 32 on a study visit of the faculty in mid-March.
- Professor Lu Jian Mei of Suzhou University visited the faculty in mid-April. This is part of ongoing graduate studies collaborations between our universities.

Promoted

Professor CHAN Heng Huat
(Mathematics)

Professor LEE Soo Teck
(Mathematics)

Professor XU Xingwang
(Mathematics)

Associate Professor Ryan Philip Anthony BETTENS
with tenure (Chemistry)

Associate Professor FAN Wai Yip
(Chemistry)

Associate Professor Hans Frederick Willeboordse
with tenure (Physics)

Dr SEOW Teck Keong
Senior Lecturer (Biological Sciences)

Dr Adrian Michael LEE
Senior Lecturer (Chemistry)

Dr LEONG Lai Peng
Senior Lecturer (Chemistry)

Dr Rajesh Ramchand PARWANI
Senior Lecturer (Physics)

Dr LAM Siew Hong
Lecturer (Biological Sciences)

Dr Peter Alan TODD
Lecturer (Biological Sciences)

Dr TAN Heok Hui
Lecturer (Biological Sciences)

Dr TAN Swee Hee
Lecturer (Biological Sciences)

Dr BASHEER Chanbasha
Lecturer (Chemistry)

Dr ZHAO Jin
Lecturer (Chemistry)



University Awards 2008 were held on 11 April 2008. The Faculty of Science was honoured with four awards and the conferring of one of our own with the title of Emeritus Professor.

Outstanding Educator Award

Associate Professor Sow Chorng Haur
Physics

"My greatest reward in teaching is to help ignite the sparkle of knowledge in students' eyes."

Outstanding Researcher Award

Professor Shen Zuowei
Mathematics

"Research is discovering ... and understanding the discovery."



Young Researcher Award

Dr Peter Ho

Physics

"The study of organic semiconductors not only lays the foundation to a possible revolution in electronics, but also provides an important perspective in our understanding of life processes such as photosynthesis and signal transduction."

Associate Professor Loh Kian Ping

Chemistry

"Diamond has always interested mankind because of its brilliance and hardness. My research in the last 10 years have revealed remarkable properties in this material which could impact areas from medicine, electronics to nanoscience, providing ample opportunities for learning new chemistry and physics."

Emeritus Professorship

Professor Goh Suat Hong

Chemistry

The University honoured Professor Goh Suat Hong of the Department of Chemistry, with an Emeritus Professorship. Professor Goh, an alumnus with a BSc 1964 and DSc 1993, earned his MS and PhD degrees from University of Akron in the USA. Prof Goh's research interests are in the miscibility of polymer blends and Fullerene-based polymeric materials and polymer/carbon nanotube composites. He has been the recipient of numerous University and Faculty Teaching Awards and other awards from the University, Singapore National Institute of Science, National Science and Technology Board, ASEAN Committee of Science and Technology and Federation of Asian Chemical Societies. Most recently, he was honoured by the University of Akron with an Outstanding Alumni Award.

Congratulations, Prof Goh!



In the Forefront

NUS Teaching Awards

The Centre for Development of Teaching and Learning awards the Annual Teaching Awards for of NUS. For the academic year 2006/2007, 41 faculty members were nominated. Of these, 6 were from the Faculty of Science.

- *Professor IP Yuen Kwong Alex*
Biological Sciences
- *A/Prof ZHOU Weibiao*
Chemistry
- *A/Prof Victor TAN*
Mathematics
- *Dr CHAN Chun Yong Eric*
Pharmacy
- *Dr YAP Von Bing*
Statistics & Applied Probability
- *Ms CHEN Peiyi*
Statistics & Applied Probability

In addition, faculty members who were awarded the Teaching Awards 3 years consecutively were placed in the Honour Roll to recognise their sustained high performance in teaching. A total of fourteen were added to the Honour Roll, of which 5 were our own faculty from Science.

- *Professor GOH Suat Hong*
Chemistry
- *Professor KOH Khee Meng*
Mathematics
- *A/Prof GOH Say Song*
Mathematics
- *A/Prof CHAN Lai Wah*
Pharmacy
- *A/Prof SOW Chorng Haur*
Physics

NUS Safety and Health Awards

The NUS Safety and Health Awards Ceremony was held on 11 March 2008.

NUS Annual Safety & Health Performance Award (ASHPA)

ASHPA is an annual award presented by Office of Safety, Health & Environment (OSHE), to give recognition to departments that have performed well in safety and health through the implementation of the safety and health management system. We had 100% participation from all our laboratory-based departments for the Annual Safety and Health Award 2007. This year, 2 of our departments were selected among the top five departments in the University for effectively implementing Safety and Health practices in year 2007. They received Silver Awards (S\$ 35,000) during the Annual Safety and Health Day organized by OSHE.

Silver Award

- Physics
- Pharmacy

Merit Award

- Biological Sciences

Participation

- Chemistry

NUS Safety and Health Improvement Programme (SHIP)

SHIP is aimed at empowering NUS staff with the motivation to bring about improvements in some aspects of their workplace safety and health through teams that are modelled after the Work Improvement Team programme (WITs). Through this process the department/research institute is able to improve their safety performance. This year 5 teams participated from Science (2 from Chemistry and 3 from Pharmacy):

Bronze Award

- Chemistry ERT, Department of Chemistry, led by Mr Tan Khai Seng

Merit Award

- EASI, Department of Pharmacy, led by Ms Teresa Ang Certificate of Improvement
- Chemistry Fire Safety, Department of Chemistry, led by Mr Tan Khai Seng
- The Sail, Department of Pharmacy, led by Ms Neo Geok Eng
- STEP, Department of Pharmacy, led by Dr Georgia Pastorin

NUS Quality Service Awards

Source: Knowledge Enterprise online

NUS honoured departments and staff for providing quality service on 24 January during Quality Service Day.

Honoured at the occasion were 13 individuals who received the NUS Quality Service Award. Four of them were from Science. They were A/Prof Lim Tit Meng (Dean's Office), Ms Lim Wan Li (Chemistry), Ms Wong Kway Yip Veronica (Biological Sciences), and Mr Wu Tong Meng, Samuel (Physics).

A/Prof Lim Tit Meng stood out among the winners as an academic who went the extra mile to make a difference to students outside the University. The former Vice-Dean (now seconded to the Singapore Science Centre as Assistant Chief Executive) has helped to promote learning of life science as a consultant in various secondary schools and junior colleges, and voluntarily led the Singapore team in the International Biology Olympiad to success for several years. Not forgetting his students in NUS, he has also helped to raise funds to enable needy students to go on exchange programmes.

A/Prof Lim is the recipient of the award in the academic category as the NUS Quality Service Award for academic staff will be phased out in 2008.

Annals of Statistics appoints a new Associate Editor

Xia Yingcun, associate professor in the Department of Statistics has been appointed Associate Editor of the prestigious journal *Annals of Statistics*. Said Professor Anthony Kuk, head of the department, "To be appointed as an AE for the *Annals of Statistics* is certainly an honour and a sign that our peers have recognised and taken notice of your work. This is another indication of how well you and the department are doing."

Outstanding Referee in Physics

American Physical Society (APS) has designated Professor Berthold-Georg Eglert with the honour of Outstanding Referee. The selection of "Outstanding Referee" recognises 130 of its 42,000 active referees. In this inaugural year, a larger group of 534 were selected.

By initiating the programme, APS expresses its appreciation to all referees whose efforts in peer review. *APS is the world's largest professional body of physicists representing over 45,000 worldwide.*

Singapore Science and Engineering Fair (SSEF)

This year's Singapore Science and Engineering Fair saw 246 projects short listed by participating secondary and junior college students. Eleven projects mentored by faculty members from the Faculty of Science bagged prizes. Many other mentors from NUS put in considerable time and effort to guide their projects. These mentors are an important part of our overall outreach programme to inspire students to consider a career in science.

In the Forefront *(cont')*



- ◆ A/Prof Jagadese J. Vittal and Dr Mangayarkarasi Nagarathinam from the Department of Chemistry had their article, “Photochemical [2 + 2] cycloaddition as a tool to study a solid-state structural transformation”, published in the January 2008 issue of Chemical Communications. It was among the top10 accessed on the web for the month. In the same issue, A/Prof Vittal, together with Dr Koh Lip Lin and Abdul Malik Puthan Peedikakkal, published the article “Photodimerization of a 1D hydrogen-bonded zwitter-ionic lead(II) complex and its isomerization in solution”.

- ◆ Physics Professor Li Baowen and Research Fellow Wang Lei succeeded in building diodes that manipulate heat, which paves the way for thermal transistors and logic. They described the emerging field of “phononics” in the March 2008 issue of Physics World.

- ◆ Dr Kang Lifeng (Pharmacy), NUS Postdoctoral Fellow at the Massachusetts, published a paper “Microfluidics for drug discovery and development: From target selection to product lifecycle management” in the January 2008 issue of Drug Discovery Today.

- ◆ Dr Chen Ping, assistant professor in the departments of Physics and Chemistry, had a paper “High-capacity hydrogen storage in lithium and sodium amidoboranes” published online in Nature Materials in December 2007.

- ◆ A/Prof Lim Tit Meng (Biological Sciences) together with Heng Chew Kiat (Yong Loo Lin School of Medicine), and Victor Samper, Ji Hongmiao and Chen Yu of A*Star, whose application for patent of their Nucleic Acid Purification Chip was published at the Japanese Patent Office in November 2007.

- ◆ Dr Mathew Lim and Professor Navjot S Sodhi from the Department of Biological Sciences, and Professor John Endler (University of Exeter) had a letter published in a January issue of Science entitled “Conservation with Sense”.

- ◆ A/Prof Li Tianhu and colleagues in the Department of Chemistry, had their article “Site specific self-cleavage of certain assemblies of G-quadruplex” that was published in January 2008, highlighted in the December 2007’s Chemical Biology, an easy-to-use point of access to chemical biology news and research from across RSC Publishing.

FoS Calendar of Events

10 May – 31 July

- Physics Summer Internship Programme for Indian Students (SIPIS 2008)

18 May – 2 June

- Chemistry China Immersion Programme

24 May

- Science Open House

24 May

- Science Research Congress

29 May

- Lunchtime Talk: "Quality control of botanical medicine and botanical products" by A/Prof Koh Hwee Ling

29 May – 3 June

- Physics Enrichment Camp

1 June – 22 June

- Physics Immersion Trip to Germany

4 – 6 June

- 2nd International Workshop on Transmission of Information and Energy in Nonlinear and Complex Systems

15 – 19 June

- 9th International Hydrocolloids Conference

10 – 11 July

- Science Commencement Ceremonies

14 – 19 July

- 7th World Congress on Probability and Statistics

18 July

- NUS Commencement Dinner

20 July

- Conference in honour of Professor Bai Zhidong on his 65th Birthday

25 July

- Science Freshman Briefing

4 – 9 August

- Orientation Week

5 – 7 August

- Regional Electrochemistry Meeting of South-East Asia (REMSEA 2008)

6 August

- Science Dean's Welcome Tea

6 August

- Creative & Heuristic Application of Science (CHAOS 2008) Finals

21 August

- Lunchtime Talk by Professor Andrew Wee

13 September

- SMP 14th Youth Science Conference

OmniSci

Faculty of Science

*Cultivate passion
Catalyze change
Create future*

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