

**Distinguished Science Alumni Awards 2005**  
**TAN Kian Meng William, PBM**  
**BSc 1980**  
**Scientist/Doctor/Paralympian/Humanitarian**

Dr William TAN personifies both passion and compassion. Born in 1957, he contracted polio at the age of two and was paralysed from the waist down. Notwithstanding his disability, he has shown outstanding strength in overcoming adversities. From a kindergarten drop-out, he topped Selegie Primary and went to Raffles Institution on a Ministry of Education Scholarship for his secondary and Pre-University education.

The NUS Alumnus who majored in Biology and Psychology joined the Civil Service after graduation in 1980. In pursuit of his dream to become a scientist and medical doctor, he ventured abroad for postgraduate studies in 1989. Holder of a First Class (Honours) in Physiology, this Harvard University's Fulbright Scholar and Oxford University's Chevening Scholar has also trained at the world-renowned Mayo Clinic in USA.

Dr TAN is an accomplished wheelchair marathoner and Paralympian. As a social activist par excellence, he chairs various Foundations and committees, and propelled his wheelchairs in ultra-marathons across the lengths of New Zealand, Malaysia, Thailand, United States and helped raised more than \$14 million for charities locally and internationally, over the last 18 years.

He has received several accolades, including the Reader's Digest Inspiring Asians' Award, Commonwealth Youth Award, and the Outstanding Young Persons of the World Award.

He is strongly rooted to his alma mater. He spearheaded and helped establish the NUS Alumni Chapter in Boston. In 1993, he wheeled 100km across Singapore to raise funds for the Universities Endowment Fund. In 1994, he completed another ultra-marathon to raise funds for the NUS Students' Fund, followed by another in 1997 for the NUS Carnival of Challenges.

In 2000, he spearheaded the Professorship in Geriatrics, securing a donation of \$1.5 million from Parkway Group Healthcare. To improve the quality of care of children with cancer, Dr TAN has spearheaded the Professorship in Paediatric Oncology.

Towards raising \$1.5 million for the Professorship, he recently completed gruelling wheelchair marathons in ten continents within 70 days. His amazing race to break the existing Guinness World Record of 99 days took him to Antarctica, Argentina, Egypt, Thailand, South Africa, Netherlands, Australia, New Zealand, Canada and USA between February and May 2005.

**"There are no dreams that are unattainable for anyone who has the will and determination to redefine what is humanly possible!"**

**Distinguished Science Alumni Awards 2005**  
**TAN Wee Hin Leo, BBM, PPA(E), PBM**  
**BSc 1968, BSc(Hons) 1969, PhD 1974**  
**Director, NIE**

Professor Leo TAN graduated from the University of Singapore with a BSc (Honours) in Zoology in 1969 and a PhD in Marine Biology in 1974. He held various teaching positions with the University from 1973 to 1986. In 1981, he moved from his senior lectureship to the directorship of the Singapore Science Centre, a concurrent appointment till 1986. As foundation Dean of Science, Prof Tan was one of those invited to lead NIE forward in 1991. His subsequent appointment to full Professor in 1992, and as Director of the NIE in 1994, are testimony to his abilities.

His lifelong interest in Marine Biology and the public understanding of science is ably demonstrated in his recent prestigious publications in Nature and Science, despite being fully involved in the daily administration of the very vibrant NIE.

Recognition of his standing can be seen in the public awards he has received to-date. Notably, the Public Administration Gold Medal (1988), the Public Service Medal (1995), the Public Service Star (2001), the Green Leaf Environmental Award (1997), the National Science and Technology Medal (1999) and the Order of Merit from the French Government in 2002.

**"Science is relevant and fun!"**

**Distinguished Science Alumni Awards 2005**  
**Gloria LIM, BBM**  
**BSc 1953, BSc(Hons) 1954, MSc 1957**  
**Dean of Science, SU (1973-77), NUS (1980-81)**  
**Foundation Director NIE (1991-94)**  
**Member, Public Service Commission (1982-96)**

Dr Gloria LIM graduated in 1954 with a Bachelor of Science (Honours). She went on to obtain her Diploma in Education in 1956 and her Master of Science from the University of Malaya in 1957. She later received her PhD from the University of London in 1961 and an Honorary DSc in 1999 from the University of Loughborough.

Dr LIM was Professor of Mycology in the Department of Botany, Head of Department and formerly Dean of Science in the University of Singapore. She was also Foundation Director of National Institute of Education, Nanyang Technological University.

Dr LIM has published about 140 papers and chapters in books on Mycology (Fungal Biology). She was on the editorial board of several international journals, viz *Mushroom Journal for the Topics*, *MIRCEN Journal of Applied Microbiology* and *Applied Biotechnology*, *International Journal of Tropical Plant Disease*.

She was a member of Singapore Science Council, Singapore Science Centre Board, National Parks Board and also served on the Singapore Public Service Commission (1982-1996). She was awarded the Public Service Star (BBM, Bintang Bakti Masyarakat) in 1993 in recognition of contributions to the Public Service Commission.

**"Where there is an open mind  
There will always be a frontier  
Ideas are funny little things  
They won't work unless you do."**

**Distinguished Science Alumni Awards 2005**  
**LEE Kum Tatt, BBM, PPA(E), PPA(P)**  
**BSc(Hons) 1952; PhD 1955**  
**Founder Chairman, SISIR, Science Council and RISIS Co Pte Ltd**

Dr LEE Kum Tatt was one of the first doctorate graduate in Chemistry from University of Malaya in 1955.

Evident from his wide ranging and outstanding achievements particularly in the aspects of medical and industrial research and quality development, Dr LEE has left many of his imprints on the pioneering development of many scientific and technological organizations. These organizations include the Singapore Institute of Standards and Industrial Research (SISIR), Science Council of Singapore, Singapore Standards Council and Singapore Polytechnic. These organizations have paved the way for the implementation of many new institutions, projects and schemes such as the Science Centre, Science Park, Singapore Quality Movement, Technical Education and Industrial Orientation Schemes. They have played a highly contributive role and formed the essential foundation towards the moulding of Singapore into the success of today, through the application of science and technology and the networking among the important segments of the country. The success embeds the tireless and devoted efforts of Dr LEE.

In terms of industrial research, one of the most notable accomplishments of Dr LEE was the creation of the gold-plated RISIS orchid in SISIR in 1976 through a patented process developed by Dr LEE. It aroused much excitement among Singaporeans as an answer to finding Singapore's national gift and souvenir. The name RISIS evolved into a well-known brand recognized both locally and internationally.

Dr LEE has always been very interested in the activities and initiatives organized by the Department of Chemistry and the National University of Singapore in general, lending his utmost support whenever possible.

Dr LEE has received several honours from professional bodies and the Singapore Government as a tribute for his achievements and contributions. The Singapore Government awarded Dr LEE in:

- 1967 -- Public Administration Medal (Silver) for his contributions to the National Health Service
- 1973 -- Public Administration Medal (Gold) for his contribution to Singapore's Industrialization Program
- 1979 -- Public Service Star for his contribution to Polytechnic and technical education in Singapore
- 1980 -- Gold Medal for Applied Research by the Singapore Science Council for his research work in the applied field

Dr LEE was also elected Honorary Fellow and member of the following professional bodies for his exemplary contributions:

- 1975 -- Honorary Fellow of the Singapore Institute of Food Science and Technology
- 1993 -- Honorary Fellow of Singapore National Institute of Chemistry
- 1995 -- Honorary Fellow of Singapore Professional Centre
- 2003 -- Honorary Member of the Singapore Quality Institute

**"The world does not care for what we lack; It's interested only in what we can offer."**

**Distinguished Science Alumni Awards 2005**  
**LUM Ooi Lin Olivia**  
**BSc 1985; BSc(Hons) 1986**  
**Group Chief Executive Officer and President, Hyflux Ltd**

Despite her humble background, Ms Olivia LUM strived her way through a top junior college and thereafter the National University of Singapore, where she earned a BSc(Hons) degree in Chemistry.

Upon graduation in 1986, she started out as a chemist in the multinational corporation Glaxo Pharmaceutical. In 1989, she set up a small water treatment company Hydrochem (S) Pte Ltd, the precursor of Hyflux, and competed against large MNCs. The company has since grown to pursue a wide range of water-related ventures in Asia, from waste-water treatment in China to desalination plants in Singapore. As the Group Chief Executive Officer and President, Ms LUM is the driving force behind Hyflux's growth and expansion, holding fort in strategy formulation and corporate direction. Today, Hyflux is one of the fastest-growing firms in Asian water market with market capitalization of more than S\$1 billion. It has scored a number of breakthroughs under Ms LUM's personal headship of its Research and Development function, breaking new ground as one of the most innovative and impressive water treatment companies in the region. In particular, the company's pioneering development of ultrafine membrane filters is applied on all its major products. It has also begun the manufacture of a condensing device called Dragonfly that produces potable moisture from air and aims to be the possible answer to the water needs of water-scarce countries. Recently, Hyflux has been awarded the NEWater tender in Singapore to supply the republic with its own water supply from recycled waste water. As recognition of its success, Hyflux was named the Enterprise of the Year in the 2004 Singapore Business Awards. It also made into the Forbes magazine's list of the world's 200 best small companies in 2002.

Ms LUM plays a highly active role in public and community service. She serves as a Nominated Member of Parliament of Singapore, contributing to national policies. She is a board member of SPRING Singapore, the National University of Singapore Council and the Singapore Exchange Ltd. She also holds membership to the UNESCO Business Advisory Council and Singapore Green Plan 2012 Coordinating Committee. In addition, she acts as the President of the Singapore Water Association.

Ms LUM is widely hailed as one of Asia's leading female entrepreneurs. Her outstanding achievements have earned her numerous personal accolades, which include:

- Businessman of the Year 2005
- Global Women Inventors and Innovators Network (GWIIN) Award 2004
- Singapore's "Most Creative Entrepreneur" 2003, voted by Business Times readers
- International Management Action (IMAA) Award 2003, by SPRING Singapore and Chartered Management Institute
- Ernst and Young Entrepreneur of the Year 2003
- Woman of the Year 2003, by Her World magazine

**"Knowledge in science has provided me with a key to open the door of boundless opportunities."**

## **Distinguished Science Alumni Awards 2005**

**Pauline ONG (TSANG)**

**BPharm 1966**

**General Manager of Guardian Pharmacy (1978-93)**

**President of Pharmaceutical Society of Singapore (1989 - 91)**

Mrs Pauline ONG was the 'Duchess' of Guardian Pharmacy as its General Manager from 1978 to 1993, President of the Pharmaceutical Society (PSS) from 1989 to 1991 and Singapore's representative to the Commonwealth Pharmaceutical Association (CPA) for 12 terms. She has numerous speaking engagements at pharmacy congresses abroad, and was chief consultant of her own retail pharmacy consultancy from 1993 to 1998.

Mrs ONG was responsible for developing and managing Guardian Pharmacy from its single store to a chain of 50 with overseas franchises. She attracted pharmacists by matching the numerous opportunities at Guardian to fuel the increasing staffing demands of the Guardian Pharmacy. She notably made the pharmacists into business managers and good pharmacists, so that all of them could manage a shop and at the same time, understand its profitability.

Mrs ONG also felt that the graduates should be equipped with better confidence and experience in handling the pharmacist-product-patient-doctor relationship before serving professionally. Consequently, she set out to redefine Singapore's pharmacy practice in a two-pronged approach: she roused Singapore's retail pharmacists from their sleep as the General Manager of Guardian Pharmacy on one hand, while she pushed the pharmacy profession as the President of PSS on the other. Part of the push involved a change in the requirements to qualify as a pharmacist for practice and an active campaign to encourage the NUS Department of Pharmacy to broaden the scope of education to involve more practical and clinical pharmacy experience for the students. Fruitfully, a syllabus that emphasized more structured/clinical aspects materialized in the form of a 12-month pre-registration training for the graduates. The Pre-registration programme has since been divided into 9 months for the graduates and 3 months of preceptorship training for the undergraduates. Mrs Ong also ensured that all Guardian's pharmacists undertook continuing professional education to hone the professional and clinical skills of the pharmacists. Subsequently, she ensured that many deserving pharmacists were sent overseas to places such as the United Kingdom, Australia and the United States for additional training. Concurrently, she initiated projects in the same interest that invited many polished pharmacy specialists from abroad to Singapore for professional knowledge exchanges.

With the spate of successes and achievements under her portfolio, Mrs ONG co-started a joint consultancy venture with Mrs Corina LAI, known as the POCL Retail Business Consultancy, when she retired from Guardian. While with POCL, she also became the retail business consultant to the National Productivity Board. After five years in POCL, she decided to retire. These days, Mrs ONG is the living example of graceful ageing. She has studied to be a volunteer guide at the Singapore Art Museum, the Singapore History Museum and more recently at the Asian Civilisations Museum, where she is most active. Her energies now go into increasing the awareness of the Singapore's history and treasures of Southeast Asia by conducting museum tours for both locals and foreigners -- she is evidently enjoying equally as much but in a pleasantly different way. At the same time, she is also a Friend and Advisor to Volunteers at Alexandra Hospital. On November 10 2005, Mrs ONG received the National Health Group's Distinguished Contributor Award.

**"The passion to learn, renew, review, teach, mentor and give must never die!"**

## **Distinguished Science Alumni Awards 2005**

**Lucy WAN**

**DipPharm 1957, BPharm 1958, PhD 1965, DSc 1988**

**Head, Department of Pharmacy, NUS (1988-94)**

Dr Lucy WAN graduated from University of Singapore with a BPharm in 1958. She later obtained her PhD in 1965 and was awarded a DSc from NUS in 1988, DPharm (*honoris causa*) from Albert Einstein International Academic Foundation, Professor and Head of Department (1988--1994), retired.

Educator, researcher, and above all, a friend to all the students, Dr Lucy WAN is remembered for her deep empathy for the students throughout the years. Students could always depend on her support for their activities and during their respective years of headship, she made it a point to attend the Orientations, Inter-Year Games and D&Ds organized by the Pharmacy Students Society. Many pharmacy graduates will remember Dr WAN as more than a teacher: for the counselling, guidance and just simply lending a sympathetic ear to their many problems, academic as well as personal.

Dr WAN taught pharmaceuticals at the National University of Singapore, Department of Pharmacy, from 1961 to 1999. She was made Professor of Pharmacy in 1985, the first local pharmacy graduate to be appointed so. Her research interests were initially in the field of solubilisation and surface activity. Later, she expanded to pharmaceutical technology aspects of granulation and tableting, fluidization, spheronisation, pelletisation and microencapsulation. She was also interested in modifying the formulation of old traditional BP preparations to improve their stability. Her improved formulations of calamine cream, oily calamine lotion and turpentine liniment are listed in Martindale's Extra Pharmacopoeia. Under her guidance and leadership the pharmaceuticals unit of the Department progressed from a tiny laboratory with basic equipment in the Nissen Hut in McAlister Road to the modern laboratories in Kent Ridge with some of the latest research equipment. Her research work in the field of pharmaceutical technology has resulted in more than 200 publications.

Prior to her university appointment, she was Superintending Pharmaceutical Chemist, Johore State, Ministry of Health, Federation of Malaysia. Her duties included traveling all over the state to inspect dispensaries in district hospitals and premises of poison licence holders (mainly arsenicals).

Dr Lucy Wan's many appointments have included:

- Public Service Commission Selection Committee for President & Merit Scholars, Member
- Quality Control Assurance Committee, Ministry of Health, Chairperson
- Medicine Advisory Committee, Ministry of Health, Member
- Pharmacy Board of Singapore, Ministry of Health, Member
- Eusoff College, NUS, Fellow
- Advisory Panel, Journal of Bioscience, Malaysia, Member
- Advisory Board, S.T.P Pharma Sciences, France, Member

She retired as Head of Department in 1994. During her distinguished academic career she scored many firsts: first NUS Pharmacy PhD, first local graduate to be appointed Professor of Pharmacy, and the first woman to be awarded the DSc by NUS. For excellence in her field of

work and study, Professor Lucy WAN was awarded the DPharm (*honoris causa*) by the Albert Einstein International Academic Foundation.

In recent years, Dr Lucy Wan has turned her talents to writing poetry and developing her own unique brand of calligraphy art which she has named "OOS" -- Occidentally Oriental Strokes. She has been delighting friends and former students with the fruits of her literary and artistic endeavours in three recently published books.

**"I love my students, they give me the passion for my work."**

## **Distinguished Science Alumni Awards 2005**

**LUI Pao Chuen Lionel**

**BSc(Hons) 1965**

**Chief Defence Scientist, MINDEF**

Professor LUI Pao Chuen Lionel is a true pioneer in the development of science and technology in Singapore. He was one of the first scientists who joined the new Ministry of Defence in 1966, initially taking charge of Test, Evaluation and Acceptance. He was a pioneer in managing large scale programmes, including the establishment of the integrated air defence system for Singapore in the seventies. He has made innumerable contributions to the build up of science and technology capabilities in Singapore for benefits of not just in defence but also other areas with major national impact.

Within the defence arena, Professor LUI was a key mover in the establishment of the scientific and engineering support capability for the SAF. Some of his important creations include the Technical Department, the Science and Management Group, the Special Projects Organisation, Defence Material Organisation, and, most important, the establishment and execution of a masterplan to build up the engineering capability in MINDEF. He also contributed to capability in life sciences by chairing the Board of Regents for the Defence Medical Research Institute from its founding in 1993 to its absorption into Defence Science and Technology Agency in 2000. All in all, his work in the Ministry of Defence laid a strong foundation and contributed in a major way to the success of DSTA, established in March 2000.

As newly appointed Chief Defence Scientist in 1986, he carved out a new portfolio that generated many important initiatives in the Ministry of Defence. Many of the initiatives have resulted in very significant operational capabilities today, including some new ones still in the execution phase. In this work, which must remain classified, Professor LUI has always demonstrated a vision and willingness to think out of the box probably unmatched anywhere in Singapore.

As Chief Defence Scientist, Professor LUI also contributed significantly to the build-up of science and technology capabilities for the nation as a whole. He was a key mover in building up capabilities in the National University of Singapore that supported the nation. Some examples are the Laboratory for Information and Signal Processing (LISP) which grew into the Centre for Remote Sensing and Information Processing, and the Tropical Marine Sciences Institute, a key capability for our marine environment. As Chief Defence Scientist he moved policy level initiatives to tap the universities and national research institute's capabilities. Some of the defence R&D investment had therefore gone to establish national facilities such as the Compact Range and the National Wind Tunnel. The cumulative effect of the work with the universities led eventually to the establishment of Temasek Laboratories to manage them. These capabilities not only support defence but have vital roles to play in the national economy.

His strong support also led to pioneering work on underwater shock studies between MINDEF and NUS, the capability ultimately leading to the establishment of the Centre for Computational Mechanics and subsequently the Institute for High Performance Computing.

The latest initiative to take root is the Temasek Defence Systems Institute in the National University of Singapore which is a strategic collaboration between NUS and the US Naval Postgraduate School to establish Singapore as a centre for Defence Systems Engineering. The

first batch of students and the first courses are now being conducted. This will have spin-offs in systems engineering for the national economy.

Professor LUI was called upon for major national duty many times due to his proven vision and systems engineering abilities. He made significant contributions to the studies for the Electronic Road Pricing systems for the Land Transport Authority, studies on Changi Airport, and the protection of vital facilities against terrorism. He was the pioneer in establishing Operations Research capability in the Ministry of Defence, which led to expansion of system engineering capability that was tapped nationally in these large projects.

Professor LUI also excelled as an Adjunct Professor in the Department of Industrial and Systems Engineering, teaching a highly popular course on Large Scale Systems for over ten years. This is a unique contribution to systems engineering education in Singapore, born out of his involvement in many large scale systems engineering studies in Singapore. He received the inaugural Teaching Excellence Award for Adjunct Staff at the National University of Singapore for his contributions in this area.

One of his most recent achievements is the opening up of the underground space in Singapore for exploitation. He provided guidance and top level leadership to the DSTA team that developed the Underground Ammunition Facility which has proven the feasibility for Singapore to tap underground space in an economic manner. As a result of this work, many government bodies are now studying the use of underground space to overcome land constraints in Singapore, with potentially very important national benefits.

Throughout his career, Professor LUI Pao Chuen has demonstrated a visionary zeal in pursuing the national interest, and the courage to back unconventional, out of the box and innovative solutions. He is truly a pioneer Systems Architect and a role model for future generations.

For his consistent and outstanding leadership in the build up of science and technology capability for the nation and its exploitation for major systems of national impact, Professor LUI Pao Chuen is awarded the National Science and Technology Medal 2002.

**"To make a difference in the world you must dare to dream, to do and to deliver."**

**Distinguished Science Alumni Awards 2005**  
**HON Chia Chun Noel, JP, BBM(L), BBM**  
**BSc 1969, BSc(Hons) 1970**  
**Chairman, NEC Solutions Asia Pacific Pte Ltd**  
**Chairman, Singapore Kindness Movement**  
**President, Singapore Scout Association**

Mr Noel HON is the Chairman and former Chief Executive Officer of NEC Solutions Asia Pacific Pte Ltd. He is also a director of NEC Business Coordination Centre Singapore.

He is a board member of various companies and public organizations including Inland Revenue Authority of Singapore, Singapore Health Services, SembCorp Logistics, SISTIC, TREK 2000, National Dental Care and National Cancer Centre. He also chairs the Singapore Kindness Movement, the Board of Governors of St Joseph's Institution and he is President of the Singapore Scout Association.

Mr HON, a Justice of the Peace, received the Public Service Star and the Public Service Star (BAR) from the Singapore Government in 1991 and 2003, respectively.

**"Fortune Favours the Brave."**

**Distinguished Science Alumni Awards 2005**  
**WEE Heng Tin, PJG**  
**BSc 1963, BSc(Hons) 1964**  
**Director-General, Ministry of Education (1996 - 2004)**

Mr WEE had an illustrious career in the Education Service spanning 40 years. He joined the Education Service as a teacher in 1964 and rose to become a principal in 1971. He served as principal of Dunearn Secondary School, Temasek Junior College and National Junior College. He was appointed Director-General of Education in December 1996.

Mr WEE has contributed significantly to the advancement of education in Singapore. As the Director-General of Education, he put in place many initiatives that had lasting impact on education in Singapore. He played a key role in the formulation of the "Thinking Schools, Learning Nation" vision, the introduction of National Education in schools and the enhancement of teaching using IT through the Masterplan for IT in Education. He also led the introduction of the School Excellence Model to help schools strive towards excellence in various fields. More recently, Mr WEE played pivotal roles in the review of Mother Tongue languages, the introduction of compulsory education and the review of junior college and upper secondary education.

Mr WEE also served on a number of statutory boards and councils such as the National University of Singapore Council, the National Institute of Education Council and the Institute of Technical Education Board of Governors.

**"In 1959, The University of Singapore (predecessor of NUS) took in the first batch of 36 students from Chinese schools. I was one of them and have benefited from this move to provide equal opportunities for all. NUS has never stopped to innovate and re-make itself so that it can serve Singapore better".**

**Distinguished Science Alumni Awards 2005**  
**WONG Ah Long**  
**BSc(Hons) 1969**  
**Chairman, Pacific Star Investment and Development**  
**Deputy Chairman, NUS Council**

Mr WONG Ah Long graduated from the University of Singapore with an Honours degree in Applied Chemistry in 1969, followed by a Masters degree in Business Administration in 1972.

Mr WONG was the Chief Executive Officer for a township development in Surabaya from 1974 to 1981. Thereafter, he was engaged in partnership in the construction and development business in Singapore and Indonesia till 1987. Between 1987 and 1991, he was the General Manager of the construction arm of Singapore Technologies, before serving as the General Manager of DBS Land up to 1996.

In 1996, he joined Suntec City Development Pte Ltd--Singapore's largest private development (of about 7 million sq ft built-up area) as its Chief Executive Officer and successfully transformed Suntec City into the premier business and retail shopping centre in Singapore. Under his astute leadership, Suntec City won several international awards, including the FIABCI Prix d' Excellence in 1999 for the most successful project in the office and retail sector.

He is currently the Chairman of Pacific Star Investment and Development, a member of an international group specializing in large-scale real estate investments in Asia, overseeing and directing the investments and developments of the Group. He also holds directorships in several other real estate and development companies.

Despite his hectic schedule, Mr WONG has put in a lot of time and energy to actively support NUS in its education and alumni initiatives. He serves as the Deputy Chairman of the NUS Council and the Institute of South East Asian Studies Board of Trustees. He is a member in the Advisory Board of the NUS Business School and the International Resource Panel of the Business Alumni Association and the past Vice-President of the NUS Business School Alumni Association. In addition, he chaired the fund raising committee for the Kiang Ai Kim Scholarship Fund for the Department of Chemistry. The above-mentioned are a few of his many efforts in promoting stronger ties between the alumni and university. Notwithstanding, his service to the public and business community at large should also be highlighted. He is a member of the Hong Kong-Singapore Business Association and president of Singapore Chapter of FIABCI. In addition, he undertakes the role as the treasurer of the Garden City Fund management committee and member of the National Council of Drug Abuse.

In recognition of his devoted and sustained contributions to NUS and the alumni community, Mr WONG was awarded the inaugural NUS Distinguished Alumni Service Award. Furthermore, he was awarded the Eminent Alumni Award from the NUS Business School.

**"We must embrace a 'Jump out of the Box' mindset to remain relevant."**

**Outstanding Science Alumni Awards 2005**  
**Pearleen (WONG) CHAN**  
**BSc 1968, BSc(Hons) 1969**  
**Divisional Vice-President, Singapore Airlines**

Mrs Pearleen CHAN graduated from the University of Singapore in 1969 with honours in mathematics.

Involved in Government projects since 1969, Mrs Pearleen CHAN directed, planned and managed implementation of the computerization effort of every Government Ministry, while serving as a key member of the management team. She has served on several committees and boards, and was named one of the top information technology professionals in Singapore, by ComputerWorld magazine.

In March 1998, Mrs CHAN founded the Singapore Network Services, Ltd (SNS), as an extension to the national computerization effort to build an infrastructure for effective inter-organizational communication and information access for both the public and private sectors. Under her sterling leadership, SNS pioneered the use of EDI technology when it implemented the first nation-wide trading network, TradeNet. The network left a resounding impact on the business and trade sectors in Singapore. Subsequent networks were launched in the healthcare, manufacturing, distribution, retail, construction, real estate, legal, finance, travel and education sectors.

Mrs CHAN's leadership in SNS, particularly for the TradeNet system has brought the company local and international recognition for its success in streamlining business processes. Indeed, TradeNet is today a world-class system that has earned local recognition and international accolades. Two case studies on TradeNet have been published in the Harvard School of Business Studies.

Mrs CHAN left SNS in 1999 and assumed the appointments of General Manager of Finixis and CEO of TX123. She was able to combine the strengths of building communities through TX123 and offering financial banking and other e-commerce services through Finixis as a one-stop centre meeting the total needs of SMEs. To lead in the charge process, Mrs Chan also directs a team of business process re-engineering experts in studies which streamline workflow processes and operational efficiency through the application of total procurement services.

Mrs CHAN has spent more than 20 years in the information technology industry, specialising in information systems strategies and development. She is regarded as an expert in Information Technology in the international community, and is on the Boards and Advisory Committees of many prominent bodies in setting IT policies and strategies. She is currently a Divisional Vice-President of SIA.

**"My course in NUS sharpened my thinking ability and set me in good stead for a career in IT".**

**Outstanding Science Alumni Awards 2005**

**CHUA Yong Hai, BBM, PBM, JP**

**BSc 1965, BSc(Hons) 1966**

**Chairman, Lend Lease Asia Holdings Pte Ltd, Asia-Pacific Investment Co Ltd,  
Stanbridge International Pte Ltd**

**Non-Resident Singapore High Commissioner to Namibia and the Kingdom of  
Swaziland**

CHUA Yong Hai was a Singapore government scholar and graduated from the then University of Singapore with a first class Honours degree in Applied Chemistry and graduate diploma in Business Administration. He subsequently pursued his PhD degree in Chemical Engineering in the University of New South Wales under an Australian Commonwealth fellowship.

Dr CHUA had a distinguished career in the Singapore government administrative service from 1970 to 1982, where he held several senior positions including the Director of Investments in the Ministry of Finance and concurrently the first General Manager of Temasek Holdings Pte Ltd. He moved to the private sector in 1982 and was Group Managing Director of United Engineers Ltd before joining Egon Zehnder International in 1985 to undertake senior management recruitment in Asia Pacific region. In 1989, he was appointed the Group General Manager of Suntec City Development Pte Ltd where he managed the successful completion of the S\$2 billion convention, exhibition, office and retail development project. He also was a director of several listed companies including Lend Lease Corporation Ltd and Goodman Fielders (Singapore) Ltd. He is currently Chairman of Asia-Pacific Investment Company Ltd and Stanbridge International Pte Ltd and continues to be a director of several listed and non-listed companies.

Dr CHUA has been active in social and community work for which he was awarded the Public Service Medal and the Public Service Star by the President of Singapore. He was appointed Singapore's non-resident High Commissioner to the Republic of Namibia in 2000 and the Kingdom of Swaziland in 2002 and was previously the Honorary Consul of the Republic of Uruguay to Singapore. He is the co-patron of the Australian (Singapore) Chambers of Commerce and is a Justice of the Peace.

**"Humility is a great virtue. Understand your strengths and weaknesses and don't ever think that you have arrived."**

## **Outstanding Science Alumni Awards 2005**

**John CLIMAX**

**BScPharm 1977**

**Co-founder/Executive Chairman, ICON Clinical PLC**

John CLIMAX, one of ICON's two co-founders, has served as a Director and Chief Executive Officer of ICON and its subsidiaries since June 1990. In November 2002, he was appointed Executive Chairman. He has over 25 years of experience in the contract research industry in both Europe and the United States.

John received his primary degree in pharmacy in 1977 from the University of Singapore, his masters in applied pharmacology in 1979 from the University of Wales and his PhD in pharmacology from the National University of Ireland in 1982. He has authored a significant number of papers and presentations. In 2005 he was appointed adjunct professor at the Royal College of Surgeons (Ireland).

**"The courage to follow your passion wherever in the world it takes you. The strength to recognise failure as another opportunity. The wisdom to view successes as possibilities in pushing the boundaries."**

### **ICON Clinical PLC**

ICON today is the fourth largest global drug development organization which manages clinical trials in all major therapeutic areas, including CNS, cardiology, dermatology, endocrinology, gastroenterology, infectious diseases, oncology, pain management, paediatrics, respiratory, and urology. ICON was listed in the US on NASDAQ in 1998.

ICON reports 10% increase in net revenues and EPS of 42 cents. (NASDAQ:ICLR) Dublin, Ireland, September 27, 2005 - ICON plc (NASDAQ: ICLR), a global contract clinical research organisation, which has approximately 2,800 employees providing services to the pharmaceutical, biotech and medical device industries from 37 locations in 23 countries worldwide, reported the financial results for its fourth quarter ended August 31, 2005.

**Outstanding Science Alumni Awards 2005**

**GOH Chee Wee**

**BSc 1968, BSc(Hons) 1969**

**Chairman, NTUC Board of Trustees**

**Group Managing Director / CEO, Comfort Group Ltd (1997--2003)**

**Minister of State for Ministry of Trade & Industry, Ministry of Labour and Ministry of Communications (1993--97)**

GOH Chee Wee is Chairman of NTUC Board of Trustees and consultant to NTUC Fairprice. He is also a director of Singapore Labour Foundation and a director of a number of public listed companies in Singapore.

Mr GOH was a Member of Parliament for the Boon Lay Constituency from 1980 to 2001. He was a Minister of State for the Ministry of Trade and Industry, Ministry of Labour and Ministry of Communications from 1993 to 1997. He was the Group Managing Director and Chief Executive Officer of Comfort Group Ltd from 1997 to 2003.

Mr GOH has a Bachelor of Science degree and a Diploma in Business Administration from the then University of Singapore and a Master of Science degree from the University of Wisconsin, USA.

**"To strive for excellence in whatever we do."**

## **Outstanding Science Alumni Awards 2005**

**HEW Choy Sin**

**BSc 1961**

**Vice-Chairman, Tan Kah Kee Foundation**

**Singapore National Science Award 1997**

HEW Choy Sin, a Professor of Plant Physiology in NUS, is a leading authority on Orchid Physiology and has published 3 books and more than 130 scientific papers. Professor HEW has served as a consultant to many regional and local floricultural companies and societies, and also has served in several government bodies including Institute of Education, NSTB and PSC. Professor HEW was also advisor to Guangzhou Scientific Technology Exchange Centre, China on horticultural production and is the Advisor and Visiting Professor to Research Centre for Chinese Orchids, South China Normal University. NSTB awarded Prof HEW that National Science Award in 1997, recognizing "his outstanding contribution in placing Singapore at the forefront of global orchid research".

Professor HEW is the Vice Chairman of Tan Kah Kee Foundation, Adviser of the NUS--Tsinghua-Xiamen University Tri-lateral Research Program at the Department of Biological Sciences, NUS, and Adjunct Professor of Institute of Advanced Studies, NTU.

**"What is research? It is search and to search again. The key is to ask what to search, why to search, and how to search."**

## **Outstanding Science Alumni Awards 2005**

**KWAN Yuen Ching Natasha**

**BSc 1985**

**Deputy General Manager, OEM Multi-National & Alliance, APAC/GCR & Japan Region, Microsoft Singapore**

Natasha KWAN majored in Chemistry in the National University of Singapore and graduated with a Bachelor's degree in 1985.

Ms KWAN was recruited to the multinational corporation IBM in the field of sales and marketing. She worked in IBM for 7 years driving the channel sales and development and personal computer system.

She joined Microsoft Singapore in 1992, where she has established herself and risen through the ranks rapidly. She started as the Business Systems Manager to build the emerging Windows NT server business. In 1998, she was appointed Director, Enterprise Business Group, before being further promoted to Managing Director in 2001. Ms KWAN has been a key contributor to Microsoft's success in Singapore and is credited with giving .Net momentum in the Singapore marketplace, launching Microsoft's XML Web services centre in Singapore and establishing the .Net--MySingapore partnership with the Singapore Government. She also led the launch of Windows XP and Office XP in Singapore and established Microsoft Singapore's Giving Programme, a local community affairs initiative. In recent years, she has been tasked to play a key role in Microsoft's expansion into the Asia Pacific region. In 2002, she was appointed the General Manager for Customer and Partner Experience for the Asia Pacific region, and then the General Manager for Customer and Partner Loyalty, in which she was Microsoft Asia Pacific's customer and partner 'champion'.

Currently, she holds the position of Deputy General Manager for OEM Multi-National & Alliance, APAC/GCR & Japan Region.

**"Small things done consistently in strategic places create major impact."**

## **Outstanding Science Alumni Awards 2005**

**KOH Lip Lin**

**BSc 1959**

**President, Singapore Association for Advancement of Science**

**Member of Parliament 1979--96**

**Dean of Science, NUS 1981--85**

KOH Lip Lin received his BSc degree from Nanyang University and PhD degree from Boston University.

Dr KOH had taught at the Department of Chemistry at Nanyang University (from 1964 to 1979) and at the National University of Singapore (from 1980 to 1996). He was the first Dean of Science at the National University of Singapore, and had previously served as the Head of Department of Chemistry and Dean of Science at Nanyang University, before the merger of Nanyang University and University of Singapore. After his retirement from the Department of Chemistry, he was engaged as a part-time research fellow at CE Resources Pte Ltd, an NUS spin-off company. He re-joined the Department as an Adjunct Senior Research Fellow in 1992, offering selfless guidance to staff and students on solving crystal structures with his expertise.

Apart from his endearing contributions to the university, Dr KOH also provided his service to the public. From 1979 to 1996, Dr KOH was an elected Member of Parliament of Singapore, playing his part in national policies. He has also served the University as a member of the Council. He is currently the president of the Singapore Association for the Advancement of Science. From 1994 to 1997 he served as a co-editor of the scientific journal *Acta Crystallographica*.

## **Outstanding Science Alumni Awards 2005**

**LAN Weiguang**

**PhD 1995**

**Chairman/CEO, Sinomem Technology Ltd**

LAN Weiguang started his academic studies at Xiamen University in 1985. He was then offered the NUS graduate scholarship in 1992 and received his doctorate degree in 1995 in record time.

After graduation in NUS, Dr Lan returned to China to assume the position of Associate Professor at Xiamen University. He entered into the membrane technology business shortly after and the Suntar Membrane Technology Co Ltd, a Subsidiary of Sinomem Technology Ltd was incorporated in Xiamen in 1996. A year later in 1997, its Singapore subsidiary was set up due to his astute foresight of the importance of water purification and treatment in water-scarce Singapore.

Today, Sinomem has evolved into a multinational membrane technology specialist company with its headquarters in Singapore, providing advanced membrane material production, membrane equipment fabrication and membrane application solutions as an integrated membrane industry value chain package. It has successfully pioneered hundred innovative and proprietary membrane processes. Dr LAN holds the realm as its Chairman and CEO. In 2002, under Dr Lan's leadership, Sinomem was publicly listed with spectacular IPO results. With its present strong presence in China, Dr Lan is looking into expanding further into the South East Asia region and global market.

## **Outstanding Science Alumni Awards 2005**

**Lam Pin Woon**

**BSc Pharm (Hons) 1983**

**CEO, Health Promotion Board**

After graduating with a BSc (Hons) in Pharmacy and armed with an MBA from Georgia State University, he accumulated more than 20 years of experience in regional marketing, sales, operations and business management in various corporations such as Cerebos Pacific Ltd, Quaker Oats Asia Inc. and F&N Coca-Cola Pte Ltd. Currently, he is the CEO of the Health Promotion Board, bringing with him valuable experience and a proven track record in the development of corporate strategies, directions and policies. He is also an Adjunct Lecturer at the Department of Pharmacy, NUS.

**"No matter our station in life, everyone of us can make a difference in our own way."**

## Outstanding Science Alumni Awards 2005

**LAM Lay Yong**

**BA 1957, PhD 1966**

**Professor, Department of Mathematics, NUS (1988--96)**

**Kenneth O. May Medal 2001**

LAM Lay Yong's association with NUS goes back to the University of Malaya, Singapore, where she graduated with First Class Honours degree in mathematics in 1957. She was awarded a Queen's scholarship to pursue her studies at Cambridge University. She returned to her *alma mater* as a mathematics lecturer, started researching on the history of Chinese mathematics and obtained her PhD from the University of Singapore in 1966. She was promoted Professor in 1988 and retired from NUS in 1996.

In recognition of her extensive publications on the history of Chinese mathematics, Dr LAM was awarded the Kenneth O. May medal in 2001, the highest honour given by the International Commission on the History of Mathematics once every four years. Dr LAM was not only the first Asian but also the first woman to win it. As a benchmark of intellectual peaks, this prize shares company with the Fields Medal and the Nevanlinna Prize, respectively, the highest award for achievement in mathematics and theoretical computer science. The two latter awards are presented by the International Mathematical Union (IMU), a body whose intended obscurity is sometimes disturbed by the fame of such numbers-magicians as Stephen Hawking and John (A Beautiful Mind) Nash.

**"Passion, conviction and perseverance are ingredients for a successful research project. They will ultimately triumph over all impediments no matter how formidable."**

## **Outstanding Science Alumni Awards 2005**

**LIEN Siaou-Sze**

**BSc 1971**

**Senior Vice President, Technology Solutions Group, Hewlett-Packard Asia-Pacific and Japan**

Siaou-Sze LIEN is Senior Vice President of HP Services for Asia-Pacific and Japan, a US\$3-billion business. HP Services helps organizations gain maximum value from their IT investments with systems and services that enable them to quickly adapt to changing business conditions.

At HP, Siaou-Sze focuses on creating a business environment and culture based on performance and trust that seeks continuous improvements in people, processes and technologies.

Known for her energy and business acumen, Siaou-Sze has been listed in Fortune Magazine's "50 Most Powerful Women in Asia" for four consecutive years. She also serves on the board of directors of PSAI, Republic Polytechnic, and is an NTU council member.

Born in Singapore, Siaou-Sze holds a Bachelor's degree in Physics and a Master's in Computer Science from London University, Imperial College Science & Technology, London, England. She is currently pursuing a PhD at Cambridge University.

**"Shine brightly. Remember that throughout history, people have always navigated by following bright stars, not black holes."**

## **Outstanding Science Alumni Awards 2005**

**LIEN Wen Sze**

**BSc 1970, BSc(Hons) 1971, PhD 1975**

**Group Manager, Culinary, Nestle R & D Center Singapore Pte Ltd**

LIEN Wen Sze graduated with a bachelor's degree in Mathematics and Chemistry from the University of Singapore. She continued to obtain her Ph.D. in Chemistry and a Post-Graduate Diploma in Business Administration from the same university.

She started her career in the Singapore Institute of Standards & Industrial Research (SISIR) for 7 years and her last position held was Manager of Analytical & Consultancy Services. She joined Nestle R&D Centre Singapore Pte Ltd in 1982, first as the Laboratory Manager in charge of Instrumental analytical laboratories to support in-house research projects and development of new analytical methods, before rising to the position of Culinary Support Manager. In this role, she led a team of professionals to create and industrialize new culinary products for Nestle group of companies in the Asia Pacific region covering 14 different countries. Her last 4 years were spent overseas in the Nestle R&D Centre Shanghai Pte Ltd as Head of Culinary Products & Consumer Practices starting up the R&D Centre in Shanghai from scratch; leading a team of technologists and chefs to develop culinary products for retail and food services consumers in Greater China Region. After this exciting stint, she is currently the Group Manager, Culinary, of Nestle R&D Centre Singapore Pte Ltd.

Dr LIEN Wen Sze is a fellow of the Singapore National Institute Chemistry and Royal Society of Chemistry & Chartered Chemists (UK). She also served as a council member in several SIFST councils. She was an organizing committee member of SIFST events, such as the Food Microbiology symposium and the 7th World Congress of Food Science & Technology, and sat on the Food Product Award Committee.

She has contributed greatly to food science education and training through aspects, such as being the supervisor of post-graduate students from various Chinese universities (2001 to 2005), the Honorary Professor of East China University of Science and Technology in Shanghai (2002 to date) and Advisory board member of Singapore Temasek Polytechnic, School of Applied Sciences (prior to 2001). Her other professional involvements include being the member of the International Life Sciences Institute (USA) and Advisor of functional food research program (prior to 2001).

**"Be profound in thinking but diligent in practice."**

## **Outstanding Science Alumni Awards 2005**

**LIEW Kok Pun Michael**

**BSc 1965, BSc(Hons) 1966**

**General Manager, ComfortDelgro East China Business Unit**

Michael LIEW is the General Manager of the ComfortDelgro East China Business Unit. He is responsible for the bus and taxi operations in Shanghai, Suzhou and Zhengzhou. He is also responsible for business development in East China. Mr LIEW joined the Group in December 2002 as Executive Director of Comfort (China) and Vietnam. Prior to joining the Group, Mr LIEW was the Senior Vice President of Times Publishing Group Ltd. He was in the education service for 12 years and had been a science teacher, school principal and deputy director of education. During this time, he co-authored a series of science books at primary school and 'A' levels.

Mr LIEW was awarded a Singapore Government Scholarship in 1963 to pursue a Bachelor of Science (Honours) in Physics from the University of Singapore. He was also awarded a Commonwealth Scholarship to pursue a post-graduate degree in management at the University of Leeds (UK). He was conferred the Public Administration Medal by the Singapore Government in 1976 and was a former Member of Parliament in Singapore. He has recently been appointed as Adviser to the China Council for Promotion of International Trade, Chengdu.

**"Life is full of colours and challenges and opportunities. So live it to the fullest."**

## **Outstanding Science Alumni Awards 2005**

**LIM-WEE Fong Thim Jane**

**Co-owner/Marketing Director, Wee Hoe Cheng Chemicals Pte Ltd**

**Wee Hoe Cheng Sdn Bhd (Malaysia)**

**PT Lumindo (Indonesia)**

**BSc(Hons) 1972**

Jane LIM-WEE majored in Chemistry & Zoology in the National University of Singapore and received her Honours degree in Chemistry in 1972.

Ms LIM-WEE started her career as a pharmaceutical sales representative with American multinational Pfizer. She had intensive exposure and experience in sales, marketing, financial and cost accounting, human resources, logistics and Supply Chain management. In 1980, she was appointed to the Board of Directors of Pfizer Pte Ltd.

However, her mind had been set to propel into business one day. In 1981, she returned to her family business in Civil Engineering. Together with her husband and co-owner, they took bold steps to refocus and remould the business into a chemical business, developing the successful Wee Hoe Cheng Chemicals Pte Ltd of today. The company has evolved to be a regional wholesaler, importer, regional stocklist and distributor of chemicals and food ingredients and additives from all around the world, with the latest count of 111 global business partners.

The company has its own building, sales and warehousing staff and operations in Singapore, Malaysia and Indonesia, with six business units supplying:

- Food, beverage and bakery ingredients and additives
- Consumable food products
- Pigments and additives for paints, concrete and plastics
- Magnetic media compounded chemicals and additives
- CD technology and materials support
- Specialty newslink

Ms LIM-WEE is currently the co-owner and Marketing Director of:

- Wee Hoe Cheng Chemicals Pte Ltd, Singapore
- Wee Hoe Cheng Sdn Bhd, Malaysia
- PT Lumindo, Indonesia

She travels to USA regularly, on the invitation of the USA Trade Council and the USA Dairy Council to represent our region in panel discussions, one-on-one meetings with manufacturers, exhibitions and technical conferences -- the most recent being the Whey Technical Conference in Chicago, 10-15 September 2005, attended by about 500 researchers and industry leaders from USA, Europe, Russia and Japan.

Ms LIM-WEE has made several contributions to the community, which include the setting up of the Wee Hoe Cheng Bursary Award at Ngee Ann Polytechnic for needy students. She has recently been invited as a guest speaker at the NUS Commencement 2005.

**"In a new and difficult business situation, when I take the first step, the next step reveals itself and after many steps, I find a pathway and usually a solution."**

## **Outstanding Science Alumni Awards 2005**

**LIM Jit Poh**

**BSc 1963, BSc(Hons) 1964**

**Chairman/Director, ComfortDelGro Corporation Limited**

LIM Jit Poh is the Chairman of ComfortDelGro Corporation Limited, the world's second largest land transport group. He is also the Chairman of SBS Transit Ltd and VICOM Ltd as well as a director of The Ascott Group Limited, Inchem Holdings International Limited, International Factors (Singapore) Ltd, SHC Capital Limited, Kim Eng Holdings Limited, China Sun Bio-Chem Technology Group Company Ltd and KS Energy Services Limited. All these are public companies listed on the Singapore Exchange Securities Trading Limited with business interests in land transportation, finance (stockbroking and factoring), insurance, hospitality, energy services provider and manufacturing.

In addition, Mr LIM is also a director of Surbana Corporation Limited (formerly known as HDB Corporation Ltd), NCI Golf Ltd, a company wholly-owned by NTUC Club, which is set up to develop and operate the new public golf course at Marina East and several other companies belonging to the Singapore Labour Foundation like the SLF Leisure Enterprises (Pte) Ltd which owns the Orchid Country Club.

Mr LIM was a former top civil servant and a Fulbright scholar. He was awarded the Public Administration Medal by the Government of Singapore in 1972 and three awards by the National Trades Union Congress, namely Friend of Labour Award in 1986, Meritorious Service Award in 1990 and Distinguished Service Award in 2000.

While in the civil service, he spearheaded the merger of the Adult Education Board and the Industrial Training Board to form the Vocational and Industrial Training Board, the forerunner to the present Institute of Technical Education. He served as its first Chief Executive Officer. He also sat on the boards of National University of Singapore, Singapore Polytechnic, Ngee Ann Technical College, the Science Council of Singapore, National Productivity Board, Colombo Plan Staff College for Technician Education, Institute of Education, Skills Development Fund and the National Statistical Commission. He spearheaded two very successful fund raising projects to honour Emeritus Professor LIM Chong Yah and the late Dr ANG Kok Peng.

Mr LIM was a Council Member of the Singapore Chinese Chamber of Commerce and Industry and a member of the Singapore British Business Council.

Mr LIM also served as a Council Member of the Singapore Sports Council and the Football Association of Singapore.

Presently, he is a trustee of the Singapore national Employers Federation. He also serves as Vice-President of Orchid Country Club and the Board of Management of Pei Chun Public School.

Mr LIM holds a Bachelor of Science (Honours) from the University of Singapore and a Master of Education from the University of Oregon, USA.

**"Always remember your roots."**

## **Outstanding Science Alumni Awards 2005**

**ONG Choon Nam**

**BSc 1971, BSc(Hons) 1972**

**Director, Centre for Environmental and Occupational Health, NUS**

ONG Choon Nam is a professor in the Department of Community, Occupational and Family Medicine, National University of Singapore. He is currently the Director for the Centre for Environmental and Occupational Health at NUS.

He has made important contributions to the understanding of environmental exposure to xenobiotics and carcinogenesis, in particular the molecular mechanisms of how carcinogen caused cellular and DNA damage and has published more than 200 papers in international peer-reviewed journals. Professor ONG is a member of the International Life Science Institute (ILSI) based in Washington, DC and he was the recipient of the Astra-Zeneca Award for 2001.

Since 1985, Professor Ong has served as a consultant to the World Health Organization on Environmental Health and was involved in twelve of its Environmental Health Criteria publications. He has been an Associate Editor of *Environmental Research*, the foremost journal in the field of environmental health, since 1995. He is also on the editorial or advisory board of several international environmental and occupational health journals. He has been a visiting professor to Fudan University, and Sun Yet-Sen University since the 1990s and recently the China Center for Disease Control.

He has been invited as a keynote speaker for numerous international conferences and his current research interest is on cancer chemoprevention.

He is currently an Advisor to the National Water Research Institute (USA) and was the chairperson of the Expert Panel which advised PUB independently on the NEWater Study from 2001 to 2003 and is currently the Deputy Honorary Secretary of the Tan Kah Kee Foundation.

**"Dare to venture into the unfamiliar."**

**Outstanding Science Alumni Awards 2005**  
**OOI Hong Liang Stephen**  
**BScPharm 1976; BScPharm(Hons) 1977**  
**President (Australasia Operations), Zimmer**

Stephen OOI is the President of the Australasia Region for Zimmer. Mr OOI joined Zimmer in 1986. In 1987, he was named General Manager, Asia, and was promoted to Vice-President, Asia in 1990, and subsequently to his current position in 2002. Mr OOI has more than 20 years experience in the orthopaedics and medical products industry. Mr OOI holds a bachelor's degree in Pharmacy (First Class Honours) from the University of Singapore (1977) and an MBA from the National University of Singapore.

**"Stay focused on a vision to leave something behind from hard work and commitment so that you can look back at your career and say, '*I did that!*'"**

**Zimmer - Providing Quality Orthopaedic Care**

Zimmer is committed to helping people, by providing effective solutions to restore mobility and relieve the pain of arthritis and traumatic injuries. The company aims to develop, produce and globally market orthopaedic products and services that repair, replace and regenerate, thereby improving the quality of life for orthopaedic patients. Zimmer has facilities and offices around the globe and in 1982, the company registered a business office in Singapore, as Zimmer Pte Ltd (ZPL).

*"Zimmer sells mainly joint replacement implants, implants for the treatment of trauma conditions of the bone, spinal implants and related equipment. Our best-selling products are the joint replacement implants, especially for knee replacements. We see ourselves supporting the complete continuum of orthopaedic care for the patients to enhance their quality of life. Our Singapore office is a key strategic regional operation that will position the company well to strengthen our business leadership in the region. Singapore is an ideal geographic location with a good, stable, clean and efficient government and environment that supports business investments."*

**Outstanding Science Alumni Awards 2005**

**Peter LANCASTER**

**PhD 1964**

**Faculty Professor, University of Calgary, Canada**

**Humboldt Research Award 2000**

Peter LANCASTER is currently Professor Emeritus and Faculty Professor at the Department of Mathematics and Statistics, University of Calgary, Canada.

He first graduated with an honours degree in mathematics from the University of Liverpool in 1952. After five years in the aircraft industry he took a teaching post at the University of Singapore where his research career began in earnest. He obtained a PhD in mathematics in the University of Singapore in 1964, becoming the first person awarded such a degree since the founding of Raffles College. He joined the fledgling University of Calgary in 1962, and was elected a Fellow of the Royal Society of Canada in 1984.

He has published texts, monographs and many research papers in matrix theory and related fields as applied to vibrations, numerical analysis, systems theory, and signal processing. He has travelled, lectured, and collaborated with individuals around the world.

Among many other tasks on the Canadian and international scenes, he served as Head of Department from 1973 to 1997, and President of the Canadian Mathematical Society from 1979 to 1981. He won a Humboldt Research Award in the year 2000 tenable at the Technical University of Darmstadt, Germany, and is currently an Honorary Research Fellow at the University of Manchester, England.

## **Outstanding Science Alumni Awards 2005**

**Prasad KANNEGANTI**

**PhD 1989**

**Quality Operations Director/Team Leader, Pfizer**

Prasad KANNEGANTI completed PhD programme in Pharmacy from NUS in 1989 and subsequently carried out post-doctoral work at West Virginia University under an international exchange fellowship. He has about 20 research publications in peer-reviewed international journals / books and over 20 years of experience in manufacturing, quality Operations, technical support and regulatory compliance with leading multinationals such as GlaxoSmithKline, Aventis, Wyeth and Pfizer.

Dr Prasad was admitted by Council in January 2003 as a Fellow of the Royal Society of Chemistry. He was appointed Associate Professor (Adjunct) of Pharmaceutics and Member of the Faculty of Science Advisory Committee, NUS and nominated by the Minister of Health as a Member of the Quality Control Advisory Committee. Currently, he is the Quality Operations Director/Team Leader at the Pfizer active pharmaceutical ingredients plant in Singapore.

"The Latin phrase '*Multum Non Multa*' means 'Quality not Quantity'. We are seeing increasing use of data driven and science-based tools for quality management in pharmaceutical manufacturing. My education in pharmaceutical sciences has provided me the necessary depth of understanding and is proving to be an invaluable asset to build my career."

## **Outstanding Science Alumni Awards 2005**

### **R KARUNANITHY**

**BPharm 1962; BPharm(Hons) 1963**

**Associate Professor & Senior Fellow, Department of Pharmacy, NUS (1963--98)**

Dr Karunanithy s/o Ramasamy graduated with B.Pharm (Chalmers Medalist) and Honours (First Class) in the then University of Singapore in 1962 and 1963, respectively; he had earlier obtained his B.Sc. (Chemistry) (First Class Honours) at the University of Madras in 1957. He obtained his Master of Science and Doctor of Philosophy in Food Science & Technology in the University of Leeds (UK) in 1970 and 1973 respectively.

Dr Karu, as he is affectionately called in the Department of Pharmacy, started off his career as a chemist in M/S Lever Brothers (M) Sdn. Bhd. (Malaysia) in 1957. He then took on the job as a Quality Control Chemist at the Malayan Pineapple Industry Board (Malaysia) till 1960, before he started his B.Pharm programme. Upon graduation, he started his long-spanning career with the Department of Pharmacy (NUS) as an Assistant Lecturer. Throughout the 35 years of his career in NUS, he rose through the ranks of being a Lecturer, Senior Lecturer, Associate Professor and finally a Senior Fellow, before he retired in 1998. Though he has retired, he is still sharing his knowledge with the students as a part-time academic in the department till now. In addition to his academic contribution, he is also a Chartered Chemist and Fellow of the Royal Society of Chemistry (UK), a Fellow of the Institute of Food Science & Technology (UK), a Fellow of the Singapore Institute of Food Science & Technology, and a Registered Pharmacist & Life Member of the Pharmaceutical Society of Singapore.

Dr Karu also actively participates in various public and community services. His past contributions include being the NUS Representative in the Food Advisory Committee (Ministry of the Environment), Member of the Hindu Endowments Board (HEB), Ministry of Community Development, Youth and Sports (MCDYS), and Member of the Hindu Advisory Board (HAB). He had also provided services to Singapore Anti-Narcotic Association (SANA) over a span of 14 years as a Registered Voluntary Aftercare Officer, Religious & Social Counsellor (Drug Rehabilitation Centres), Chairman/Vice Chairman/Member of the Hindu Aftercare Counselling Service, and also acted in the SANA Panel of Speakers. He was also the Leader of the Singapore Delegation for the First Meeting of the Asean Interim Project Management Committee on Protein: Food Habits Research & Development (Asean Committee on Science & Technology) held in Bangkok in 1989.

In addition to his past impressive contributions, his current commitments to public services are also notable. He has been serving, for over 20 years, as Member of Board of Visitors (Drug Rehabilitation Centres -- Anti-Inhalant Abuse) (Ministry of Home Affairs), Deputy Registrar & Solemnizer of Marriages, and President of the Sri Ruthra Kaliyamman Temple (Singapore). His other current commitments also include being an Executive Committee Member of Cambridge Neighbourhood Committee (Moulmein CC), a Management Committee Member of Ashram (HEB's Halfway House for Drug Addicts), an Accredited Voluntary Mediator for the Consumer Association of Singapore (CASE), Vice Chairman of Inter-religious Confidence Circles (IRCC) (Telok Blangah CC), and an Asst. Liaison Officer of Neighbourhood Watch Zone (Singapore Police Force).

In view of his vast contributions to academia and to community services, Dr Karu has received several awards from both the University and the State. He was awarded the National Award: Public Service Medal, PBM in 2004, the Long Service Award for contributions to Board of

Visitors (DRCs) in 1996 and 2000, the Meritorious Long Service Award by National University of Singapore in 1996, and SANA's Certificate of Honours in 1985 and Medal of Honours in 1992.

**"Make ourselves indispensable in our National Health Care Team"**

**Outstanding Science Alumni Awards 2005**  
**SEETOH Hoy Cheng**  
**BSc 1970, BSc(Hons) 1971**  
**Singapore High Commissioner to New Zealand**

Miss SEETOH Hoy Cheng is currently High Commissioner of Singapore to New Zealand.

Miss SEETOH graduated with a Bachelor of Science (Honours 2nd Class Upper) degree in Botany from the then University of Singapore in 1971. She obtained a Master in International Public Policy from the Johns Hopkins University, USA in 1984.

Miss SEETOH joined the Ministry of Foreign affairs in 1974. She served as the First Secretary in the Singapore Embassy in Washington from 1981 to 1984 and later as Counsellor in the Singapore High Commission in London from 1989 to 1992. At MFA, HQ, her appointments included Deputy Director (Finance) of Management & Personnel Directorate (1993--1994), Director of Management & Personnel (1994--1996) and Director of Administration (1997). From July 1997 to January 2000, Miss SEETOH was appointed Director of Policy, Planning and Analysis Directorate IV (South Asia, Middle East, Latin America and Africa). She was appointed Ambassador to the Laos People's Democratic Republic from March 2000 to December 2003.

**"In victory, learn when to stop."**

## **Outstanding Science Alumni Awards 2005**

**SIM Keng Yeow**

**BSc 1959, BSc(Hons) 1960, MSc 1961**

**Head, Department of Chemistry (1988--97)**

**President, Singapore National Institute of Chemistry (1975--78, 1992--96)**

SIM Keng Yeow obtained his BSc(Hons) degree in 1960 and MSc degree in 1961 from University of Malaya. Dr SIM obtained his PhD in 1964 at the University of London.

Thereafter, Dr SIM returned to join the Department of Chemistry of the University of Singapore as a lecturer in 1964, before being promoted to Senior Lecturer in 1971 and to Associate Professor in 1977. He was appointed as Acting Head in 1988 and assumed formal headship from 1995 to 1996. He retired in 1997 and had been working part-time as an Associate Professorial Fellow until 2003. During his immense contribution as head, the Department achieved a status as a top and highly respected research entity not only in comparison with departments of chemistry in Asian universities but also in the world. He has contributed 2 US Patents and over 150 publications/conference papers, 108 of which are published in international refereed journals.

Dr SIM also took an active interest in the professional activities of chemistry throughout his academic career. He was elected to the Fellowship of the Royal Institute of Chemistry (RIC) (precursor of the present Royal Society of Chemistry, London) in 1972 and served in various capacities in the Singapore Section of the RIC. He was the president of this society and worked towards its voluntary dissolution in March 1973 so that the Singapore National Institute of Chemistry (SNIC), founded in 1970, could be the sole professional chemical body representing chemists in Singapore. He was elected as a Fellow of SNIC in 1973 and has served in various SNIC councils including the presidency during the periods 1975-1978 and 1992-1996. He was the Chairman of the Organizing Committee that organized the Asian and Pacific Chemistry Congress in 1981 hosted by SNIC. He also served as the Vice-President of the Singapore National Academy of Science in 1977. He represented SNIC at the Inaugural Meeting in Bangkok which led to the formation of the Federation of Asian Chemical Societies (FACS) in 1979 of which SNIC is a founder member. He was the FACS Treasurer (1983--1989) and Secretary General (1985--87) and was conferred the FACS Citation Award in 1995 for his contributions to the development of chemistry in Asia.

SNIC conferred an Honorary Fellowship on Professor SIM in 2000 for his scholarship in natural products chemistry research, his leadership of the Department of Chemistry during a critical period of its history, and his immeasurable contributions to the Institute and other chemistry activities in Singapore and beyond.

**"Knowledge speaks; Wisdom listens."**

## **Outstanding Science Alumni Awards 2005**

**TAN Eng Liang, PJE, BBM (L)**

**BSc 1960, BSc(Hons) 1961**

**Rhodes Scholar / Olympian**

**Chairman, Board of Directors, WizVision**

**Senior Minister of State (1975--80)**

**Member of Parliament (1972--80)**

TAN Eng Liang was the first regional Rhodes Scholar, earning his doctorate from Oxford University.

Dr TAN had a meritorious career in both the public and private sector. He was a Member of Parliament from 1972 to 1980, during which he served as the Senior Minister of State (National Development) from 1975 to 1978 and Senior Minister of State (Finance) from 1979 -1980. He also held numerous key positions including Member, The Court, University of Singapore; and the Chairman of Urban Redevelopment Authority, Singapore Quality and Reliability Association and Singapore Sports Council. In particular, he has made pioneering contributions in the development and management of sports in Singapore. He took charge of the Singapore Sports Council for 16 years from 1975 to 1991 and still contributes as the Vice President of the Singapore National Olympic Council and a Patron for Singapore Swimming Association.

Dr TAN represented Singapore in Waterpolo at the Olympic Games in Melbourne 1956, Asian Games -- Tokyo 1958; Southeast Asian Peninsular Games -- Kuala Lumpur 1965 and the Asian Games -- Bangkok 1966.

Dr TAN sits on the Board of numerous private and public-listed companies such as Nipsea Holding Pte Ltd, Hotel New Otani Pte Ltd, IRE Corporation Ltd, Manhattan Resource Pte Ltd, Pokka Corporation (S) Ltd, Ezra Holdings Ltd, Progen Holdings Ltd, Tung Lok Restaurants (2000) Ltd and United Engineerings Ltd.

For his contributions and services to the country, he was awarded the Public Service Star (BBM), Public Service Star (Bar) and the Meritorious Service Medal (PJE) by the Singapore Government. In 1995, the IOC "Olympic Movement Unity" Trophy was presented to Dr TAN for his invaluable services to Olympism.

**Outstanding Science Alumni Awards 2005**

**Tan Kok Kheng**

**BSc 1969, BSc(Hons) 1970**

**Founder/CEO, Mycobiotech Inc (Everbloom Group of Companies)**

**Past President of Rotary Club of Singapore West**

TAN Kok Kheng is the founder and Chief Executive Officer of MycoBiotech Inc (Everbloom Group of Companies). He steered the company from first-discovery through pilot plant to commercialization of fresh mushroom cultivation, transfer of technology, and then to the development of mushroom-based nutraceuticals, functional foods, and biopharmaceuticals. His belief in the therapeutic benefits of medicinal mushrooms for the health of mankind has contributed to the growth and expansion of the company.

Dr TAN is also the Chairman of SMA's Food & Beverage Industry Group. Dr TAN also sits on the committee of many public organisations, including Food Standards Committee of SPRING Singapore, IE Singapore, Ministry of Environment, and the Singapore Cancer Society. In addition, has served his alma mater as a staff member in Biochemistry and has been a regular participant and sponsor of alumni functions.

## **Outstanding Science Alumni Awards 2005**

**TAN Mui Ling**

**BScPharm 1976, BScPharm(Hons) 1977**

**General Manager, East Shore Hospital (1997 -- 2002)**

TAN Mui Ling worked as a pharmacist in both the public and private sectors in Singapore for more than 10 years. She started her career as a hospital pharmacist with Singapore General Hospital, Ministry of Health.

During her tenure there, she set up the Drug Information Service under Pharmaceutical Department to educate and help health care professionals in drug related matters. She moved on to Mount Elizabeth Hospital as her Director of Pharmacy to run its pharmacy operations which have inpatient, oncology and retail components. For her participation in quality projects and contribution as leader of the Patient Delight Team in the hospital's quality movement, she received the Outstanding Quality Award in 1996.

She moved on to hospital administration and worked in both Singapore and overseas hospitals. As General Manager of East Shore Hospital, she led the hospital to obtain the People Developer Award without external consulting resources. She was also involved in hospital planning and commissioning work in a private hospital in a developing country (Yangon, Myanmar).

She is a member of the Singapore Pharmaceutical Society having held positions of Honorary Treasurer, Assistant Honorary Secretary and Editor of the Singapore Pharmaceutical Bulletin for some years. She also served as council member of the Singapore Medical Legal Society for more than 10 years.

**"In all work undertaken, do them with a spirit of excellence."**

**Outstanding Science Alumni Awards 2005**  
**TAN Seng Chye**  
**BSc 1966, BSc(Hons) 1967**  
**Singapore Ambassador to Vietnam (2002 -- 2005)**

TAN Seng Chye graduated from University of Singapore in 1967 with an Honours degree.

Bonded under a Singapore Government bursary, he was posted to the Ministry of Foreign Affairs upon graduation. He had not turned back since and blazed his way through an illustrious career as an outstanding diplomat. He has been serving the Ministry for 38 years and his impressive credentials include Ambassadorships to Thailand, Myanmar (from 1988 to 1990), Australia concurrently Fiji (from 1990 to 1993), Philippines (from 1994 to 1995) and Laos (from 1997 to 2000), as well as Directorship for Policy, Planning and Analysis Directorate I (Southeast Asia) (from 1983 to 1988), Technical Cooperation Directorate (from 1995 to 1997) and Consular Directorate (from 2000 to 2002). He has just completed his assignment as Ambassador to Vietnam (from 2002 to 2005). In addition, he has represented Singapore in many renowned international conferences such as ASEAN, United Nations, Non-aligned Movement, Commonwealth and Economic and Social Commission for Asia and the Pacific (ESCAP).

He has certainly dedicated his life to strengthening the bilateral relationships between Singapore and her neighbours and building trade and investment opportunities outside Singapore. He has been supportive of alumni gatherings whenever he is in Singapore.

**"Whatever we do, if we are open to take on new challenges and we are resourceful and are determined to achieve the best, we will realize our dreams. My primary school's motto 'Courage in every storm' is apt to meet life's challenges."**

**Outstanding Science Alumni Awards 2005**

**TAN Tien Hin Winston**

**BSc 1972**

**Managing Director, Corporate Brokers International Pte Ltd**

**Director, Singapore Technologies Engineering Ltd**

**Director, Ascendas Pte Ltd**

Winston TAN, physics graduate, is the Managing Director of Corporate Brokers International Pte Ltd., a company dedicated to helping SMEs with the passion and potential of becoming MNCs. Mr TAN is a Director of Singapore Technologies Engineering Ltd. (STE) and has been associated with the STE Group of companies for over 10 years. He is also a Board Member of several other private equity companies. Mr TAN spent 16½ years with Citibank and 7½ years with Deutsche Bank where he was General Manager. His contemporaries may remember the weekly folk sessions that he conducted in the lecture theatres. He is also a member of the Salvation Army Advisory Board.

"The friends made, the things learned and the experiences encountered during my years in SU have definitely and positively influenced my life, and for this I am very grateful to my *alma mater*."

**Outstanding Science Alumni Awards 2005**

**WONG Hung Khim, PJG**

**BSc 1963, BSc(Hons) 1964**

**Retired Permanent Secretary and Chairman Jurong Town Corporation**

**Medal of Commendation Gold, NTUC 1995**

WONG Hung Khim is also the non-executive chairman of Zhonghui Holdings Ltd. He is also and Independent Director of Stamford Land Corporation Ltd, Overseas Union Enterprise Ltd and Medi-Flex Limited.

Mr WONG served as Permanent Secretary in the Ministry of Community Development, executive director of the then Port of Singapore Authority, deputy chairman and CEO of Singapore Telecommunications Limited and chairman of Jurong Town Corporation, during his career in the Singapore Civil Service.

For his contribution in the public sector, he was conferred the Meritorious Service Medal in 1992 by the Singapore Government and in 1995, the Medal of Commendation (Gold) by the National Trades Union Congress. He was also conferred The Honorary Citizen of Suzhou Award by the Suzhou Municipality for his contributions to the Suzhou Industrial Project (SIP).

Up till December 2002, he was the group chairman and CEO of Delgro Corporation Ltd and SBS Transit Ltd and many of its subsidiaries. Mr WONG holds an honours degree in Physics from the University of Singapore.

**"I developed an analytical and enquiring mind through learning Physics. This helped my career as it enabled me to look at issues and problems logically and objectively from different as well as new angles."**

**Outstanding Science Alumni Awards 2005**

**YAP Soh Mooi Sue**

**BSc 1984, BSc(Hons) 1985**

**Founder/CEO, Research Biolabs Pte Ltd**

Sue YAP is the founder and CEO of the company. Sue is a biologist by training (BSc Honours degree in 1985). She is also an MBA graduate from the National University of Singapore.

With more than 15 years of experience in the Life Sciences industry, she is the driving force behind the company. Under her leadership, Research Biolabs has grown from a startup in 1993 to a fully integrated Life Sciences company with research and diagnostic consumables and instrument distribution, manufacture of custom oligonucleotides, DNA sequencing and other genomic services related consumables manufacturing and Life Sciences services as its key areas of business. She has also made her mark and contributions in sports from her student days.

**"Work hard, work smart and never give up."**