Molecular Therapy for Cancer Treatment

Intellectual Discourse

Beautiful Memories

The American Dream
blaze is published quarterly. The name was selected as it signifies Sunway University’s achievements in recent years. Sunway University is a “trailblazer” in education excellence pursued with flaming passion in the hearts of its employees and students.
Molecular Therapy for Cancer Treatment

Similar to self-destructing tapes in the American action spy film, Mission Impossible, Associate Professor Dr Jeff Tan Kuan Onn’s “cell death” research could result in a new cure for cancer.

The Head of the Cancer Biology Laboratory at Sunway University said it is possible to induce cancer cells to self-destruct by using a small peptide or a small molecule that can induce what he calls ‘apoptosis’.

The word ‘apoptosis’ is originally from Ancient Greek, which simply means “falling off” (as leaves falling off from a tree). The process, also known as programmed cell death (PCD), occurs when a series of biochemical events lead to characteristic cell changes and death.

Traditionally, the PCD of cancer cells is induced by pharmaceutical drugs introduced into the body to kill off cancer cells. For molecular therapy, gene expression is used instead to produce cellular protein that can induce PCD in cancer cells.

In order to understand how PCD works at the molecular level, Dr. Tan and his team in a major breakthrough successfully cloned the MOAP-1 (Modulator of Apoptosis I) protein, an effort which took at least two years of intensive research. On its own, MOAP-1 protein has a short half-life of 25 minutes, but in the presence of chemotherapy drugs, including Etoposide, it becomes more stable in cancer cells, leading to destruction of cancer cells via apoptosis.

Dr Tan’s research findings appeared in Proceedings of the National Academy of Sciences of the United States of America (PNAS) and since then, several researchers in Singapore, USA, and Canada have worked on the protein, and came to the conclusion that MOAP-1 plays an important role in apoptosis.
Dr. Tan’s research is supported by Sunway University as well as a grant of RM130,000 from the Ministry of Higher Education, Malaysia. “Currently, we have three staff dedicated to the research work,” he said.

The team’s biggest challenge now is to produce MOAP-1 protein that specifically targets cancer cells instead of the other good cells in the body. Once activated, MOAP-1 and its binding partner, pro-death protein known as BAX, would promote PCD or the “suicide programme” of cancer cells through a series of events, culminating in the release of apoptogenic factors such as cytochrome c from mitochondria.

New Hopes for Cancer Patients
The alumnus of SMK Chung Hwa Wei Sin in Kuala Terengganu, Terengganu, who completed his PhD in Biochemistry at Iowa State University in USA said that since his early years of research, he has been interested in molecular cloning.

“My task as a PhD student back then was to clone the largest known protein Titin (giant muscle protein with molecular weight, MW~ 3000,000 Da) present in skeletal and heart muscles,” he added. Mutations of Titin were later found by researchers to be associated with Cardiomyopathy, a form of heart muscle disease.

Since then, he had further training in cancer biology through a post-doctoral fellowship provided by Singapore research institute, Institute of Molecular and Cell Biology (IMCB, A*STAR research institute).

There are hopes that his years of research on PCD will revolutionise the way cancer is being treated, considering that cancer is now the fourth leading cause of death among medically-certified deaths in the country and the treatments are limited. Currently, cancer is treated by either subjecting the patient to a series of chemotherapy or using either the external or internal (Brachytherapy) form of radiotherapy.

In the case of external radiotherapy, high-energy radiation beams are used to permanently damage the DNA of cancer cells in a particular area, causing the cells to eventually die. It is aided by a series of hormonal therapy which suppresses the production of female estrogen and male testosterone, which are powerful drivers of gene expression in certain cancer cells. The idea is to reduce the level of the male or female hormone to a low level which suppresses the hormone-receptor-positive cancer cells from multiplying.

Cancer Cells

Control

Cancer Cells activated to undergo “Suicide Programme”
If successful, Dr Tan’s molecular therapy will be his greatest contribution to society, where millions worldwide are dying from one form of cancer or another.

**A New Dimension**

Because of the nature in which cancer cells multiply, the conventional methods of treatment have their limitations and known side-effects such as hair-loss and drop in blood cell counts. There are over 50 different drugs used for chemotherapy. While they can kill cancer cells, they also destroy good cells.

Ultimately, Dr Tan’s research seeks to develop cancer therapies that are safe and effective, as well as improve the quality of life of cancer patients. Besides looking at molecular therapy, Dr Tan is also investigating the use of bioactives derived from plants, in combination with molecular therapy, as an alternative method to treat different types of cancer, considering that Malaysia has a vast biodiversity with unlimited potential that has not been harnessed yet.

“We used to think that cancer cells existed in homogeneous population; however, the truth is that one treatment may not work for all,” he explained.

“Cancer cells are very different in the way they reproduce and behave in the body. There are some cancer cells that are known as cancer stem cells, which are like “mother” of cancer cells as they are pluripotent and able to produce different type of cancer cells.”

“Often overlooked is that cancer stem cells are relatively resistant to chemotherapy,” he added. “And it can survive cancer treatments to produce chemo-resistant daughter cells, leading to malignancy.”

According to Dr Tan, cancer cell biology is a field that has not been fully explored to the fullest. “Currently, my research focuses on cancer stem cells isolated from primary tumours (breast and colorectal tumours),” he elaborated.

**Research Collaborations**

Realising that the advancement in scientific research cannot be achieved in isolation, Dr Tan is now actively discussing with other researchers and clinical practitioners the possibility of collaborations in research and clinical trials.

“We are currently discussing the possibility of working closely with Sunway Medical Centre and a few other hospitals, with the hope of obtaining samples of cancer cells from patients for our ongoing research work,” he said. “These cells are invaluable. Cancer cells that belong to patients who died 30 years ago are still being used for experiments in the laboratory today. This shows how long cancer cells can survive, after the patient has succumbed to death decades ago.”

To arouse interest in his research work, Dr Tan is open to invitation from any scientific organisations to talk about his findings.

“Most research investigations in Malaysia are still using cancer cell lines,” he observed. “These are cells from Caucasian samples. As Asians, we should be able to look at our own samples of cancer cells.”
Two teams from the Department of Computer Science and Networked Systems at Sunway University participated and won prizes at the annual event organised by the Malaysian Association of Research Scientists (MARS), which exhibited more than 500 various inventions and innovations from all over the country.

The Sunway team, comprising BSc (Hons) Information Technology student, Aloysius Ang Yu Chien, and senior lecturer, Dr Pu Chuan Chin, and Head of Department of Computer Science & Networked Systems, Dr Lau Sian Lun, walked away with the silver award from the 13th Malaysia Technology Expo.

Their innovation, the “Smartphone Based Auxiliary System for Drivers” informs car drivers about road anomalies and their vehicle’s tyres conditions via an Android-based mobile application. “Information about road anomalies is updated through an online server by sending GPS coordinates,” explained Aloysius. “This project aims to decrease the chances of road accidents with updated road alerts.”

Lecturer, Yeong Lee Seng and senior lecturer, Dr Chia Wai Chong took home the Bronze Award with their “QR-based Parking Reservation System”. The project features a mobile application that allows users to reserve a parking lot with their smartphones and through the use of a QR-code based system for entry and exit. This project will provide a convenient option of reserving car-parking space.

The Department of Computer Science & Networked Systems in the Faculty of Science & Technology at Sunway is one of the leading academic and research departments in Malaysia. Sunway University is a quality provider of information and communication technology development programmes.

blaze
Intellectual Discourse

True to its international standing as an academic institution par excellence, Sunway University once again hosted the Tan Sri Jeffrey Cheah Distinguished Speakers Series (JCDSS). In the first quarter of this year, three speakers were featured.

**Professor Sir Richard J. Evans**

Speaking on the largely misleading parallelism in history, Professor Sir Richard J. Evans in his speech 1914/2014: A Warning from History? argued that in 1914, the European powers who launched the war had what seemed to be “an irresponsibly positive attitude towards war.”

“They had little idea of the catastrophe that was about to overtake them,” he told the audience during the April edition of the JCDSS. “The massive human and material losses of both world wars, and the invention of the atomic bomb, have led to a general desire in the world community to avoid large-scale war; it would simply be too destructive.”

Sir Richard J. Evans is the Regius Professor of History and President of Wolfson College at the University of Cambridge. He has a long and illustrious career as a prolific and highly regarded academic historian. He was the principal investigator on the Leverhulme Trust project, “Conspiracy and Democracy”. His latest book, “Altered Posts: Counterfactuals in History” was a thought-provoking survey and critique of “what-if?” history. He was awarded the Historical Association’s Norton Medlicott Medal for Services to History 2014.

**Professor Arthur Kleinman**

Professor Arthur Kleinman from Harvard University spoke on Values in the Professions and Business in Asia: A New Approach to our Moral Life. His topic touched on the decline in familial and filial ties; the increase of individualism and materialism; epidemic of drugs, suicides, and social violence; conflicts between private gain and public good; and corruption.

“Play is really important in people’s life. During play is when you see who people really are,” said Professor Kleinman while answering a question from the audience on the importance of play in education to improve morality.

As Professor of Psychiatry at Harvard Medical School and Professor of Medical Anthropology in the Department of Global Health and Social Medicine, Professor Kleinman has authored a number of books on medical anthropology, social suffering, mental health, stigma, subjectivity, moral experience and caregiving. He has also co-edited books on culture and depression, SARS in China, world mental health, suicide, placebos and AIDS in China.

**Dr. Muhamad Chatib Basri**

Closer to home, Dr Muhamad Chatib Basri was invited in his capacity as the Minister of Finance, Republic of Indonesia, a ministry which he has helmed since May 2013. Speaking on the topic, The Challenge from Quantitative Easing to Economic Management in Southeast Asia: Indonesia’s Experience, the former Head of Investment Coordinating Board, who is fondly known as “Pak Chatib” shared his expertise in the fields of macroeconomics, international trade and political economy.

“We in the emerging economies don’t want to be punished because of US tapering. The rupiah fell 20% since the announcement was made,” he said during his talk at Sunway. “Buying comes from emerging markets. To have growth in advanced countries you need the demand, so tapering should be done carefully.”

Besides having taught at the University of Indonesia, his experience ranges from being the Special Advisor to the Minister of Finance from 2006 to 2010, and serving as the Indonesian Sherpa for the G-20 in 2008. He was also the Deputy Minister of Finance for the G20 (2006-2010). Since 2005, Dr Chatib served as a member of the Advisory Team to the Indonesian National Team on International Trade Negotiation.

For more information about the next TSJCDSS event, please email to pr@sunway.edu.my or visit http://sunway.edu.my/university/jcdss/mailing-list to join our mailing list for upcoming talks.
Iron sharpens iron

Though spoken centuries ago, this old wise saying, “As iron sharpens iron, so one person sharpens another” still applies today.

While technology may have advanced, and information is now accessible with a click of a button, peer pressure still plays an important part in moulding Sunway University students.

Peer pressure can lead to either positive or negative actions. For this reason, Sunway Student Services Department (SSD), in collaboration with the Psychology Club and Peer Counselling Volunteers, recently organised a peer counselling conference, themed “A Heart of Compassion; A World of Difference”.

According to SSD Director Lee Siok Ping, the conference was a good platform to bring together students and experts of different nationalities from Sunway University and universities across Malaysia to inspire and uplift the spirit of helping others.

Insights into peer counselling were also shared by various speakers, comprising an impressive line-up of professionals such as Harry Low, Professor Nigel Marsh, Datin Dr. Ang Kim Teng, as panelists for the forum.

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In his lecture, keynote speaker Paul Jambunathan, who has had 38 years of experience as a registered psychologist, said that it is never a counsellor’s job to solve problems. “Instead, we are here to empower people to solve their own problems. We do not offer them the fish, but we teach them how to fish,” said the senior lecturer from the Monash University School of Medicine and Health Science.

Day 1

Paul Jambunathan with volunteers from the audience

“Courage under Fire - Helping Someone in Crisis” by Kenny Lim and Gerry Urudra, Befrienders

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The two-day event aimed to equip volunteer peer counsellors with practical skills and knowledge to support issues and challenges faced by their peers.

It also demonstrated a general care and concern which students feel for their peers. This observation was made by Elizabeth Lee, Senior Executive Director of Sunway Education Group, during her welcome speech.

“We see this as an excellent opportunity for you, our students to learn to develop empathy and understanding towards others,” she said. “We hope this hands-on learning will not only empower you, but increase your confidence and emotional maturity as well.”

One of the participants was Emanuel from Mozambique. Enrolled as an international student with a public university in Perak, Emanuel said he had met his objective of being involved in peer counselling. “There are a lot of people who are suffering; they need somebody who can reach out to them, who can hear them. So I joined this, I really want to help people, and I want to help myself,” he said.

Peer counselling is a proven successful programme which runs at many universities around the world. Sunway University is keeping up with the ever-competitive world to host the peer counselling conference for the second time, in an effort to provide holistic and practical learning opportunities for Sunway’s students, as well as students from other universities.

In addressing her peers as one of the key motivators of the conference, President of Sunway Peer Counselling Volunteers, Caroline Regina Parameswaran quoted from Mother Teresa’s prose, “Compassion begins at home, and what better place to start than here in your respective universities which is, after all, our second home.”

**Day 2**

“Help, I’m peer pressured: Dealing with Peer Pressure” by Abel Cheah, Teach for Malaysia

“Stories from Positive Psychology: Making University Life Meaningful” by Assoc. Prof. Dr Alvin Ng Lai Oon

“Communication & Conflict Resolution” by Dr Anasuya Jegathevi Jegathesan

“Sticky Notes and Push Pins” by Joshua Liong, Focus of the Family
Beautiful Memories

Although Yong Kher Li was slightly disappointed that there was no “falling snow” in South Korea, the 23-year-old lass from Kuala Lumpur nonetheless said that she enjoyed her attempt at skiing. “I was a bit scared at the same time,” she admitted.

The first-time visitor to South Korea, Kher Li hopes to return to Korea after she graduates from her degree at Sunway University. “I love Korean food, especially Guk Bap, which is beef bone soup served with rice,” she said. “The transportation system in Korea is also very good and we found it convenient to travel using public transport.”

Fellow student, Vivian Yeo Rui Hoon said that the week-long study trip to Seoul gave her a totally new perspective about her course work. She enjoyed learning from her Korean classmates at Daelim University College, the host for the students throughout their trip. “This was my first visit to South Korea. I really enjoyed it! My favourite food was the Sundubu Jigae (soft tofu stew),” said the 23-year-old from Batu Pahat.

Both Kher Li and Vivian were part of a group of Third Year Bachelor of Science (Hons) International Hospitality Management students at Sunway University, who went on a special study trip. Their assignment was to carry out competitive analysis as part of the fulfilment for the Strategic Management module. The students had to conduct field work research and data collection on one of two selected topics, “Specialty Coffee industry in South Korea” and “Low Cost Carrier (LCC) Industry In South Korea”.

Students were accompanied by lecturer, Daniel Chong Ka Leong and Teaching Fellow from the Sunway University Business School, Lai Mun Loon.

Meanwhile, 27-year-old Yang Sang Chel Roy, who hails from Seoul, said the trip was the first opportunity for him to return for a family reunion, after spending three years at Sunway University.

Helping out as an interpreter for his fellow students throughout the trip, Roy said he was happy to have his classmates visit his home country. “As much as I love Malaysia, I hope my friends have a good impression of South Korea now.

I have visited Cameron Highlands and stayed with Orang Asli; and spent time in Genting Highlands, Redang, Langkawi and Tioman. After I graduate, I hope to get a job in Malaysia!”

Great Exposure

The students visited Dongdaemun Market, a large commercial district comprising traditional markets and shopping centres in Seoul; 63 City, a 63-floor building with spectacular views of Seoul; and the Korean Folk Village, a tourist attraction exhibiting Korean culture and history.

The group spent one of their nights at Oak Valley Ski Resort, located at Gangwon-do. While having fun with skiing, the students were able to observe and experience the daily business operations of the resort.

“It was my first experience of winter and skiing!” said Kher Li. “This makes the study programme at Sunway enjoyable as both theories and practices of international hospitality management studies are shown throughout the trip.”
This study trip is the fifth since 2009, and the very first trip visiting a city beyond South East Asia, after Bali, Cambodia, Vietnam and Chiang Mai. These trips are planned and arranged to enable students to better attain practical exposure and learning experience.

The students met up with various industry experts and attended a cooking lesson conducted by Chef Kim Taehyun, who specialises in Korean cuisine. Such experiences were then brought into discussions in class to enhance the students’ learning experience at Sunway.

“Korean tourism is a unique case study in relation to hospitality management,” said Chong. “Not many studies have been carried out, specifically addressing the development and management practices in the South Korean hotel industry. This is the main reason why South Korea was picked as part of this research project. Students get to experience the planning and execution of field research.”

RESEARCH FINDINGS

Sunway University has always emphasised on students conducting primary research. The following is the outcome of two research projects undertaken by the BSc (Hons) International Hospitality Management students during their trip to South Korea.

**Topic:** “Specialty Coffee industry in South Korea.”

The ‘student consultants’ learnt that in a highly competitive market, the key to survive depends on one’s ability to focus on the correct market segments.

According to the study, the South Korean market for specialty coffee has two major segments: coffee drinkers who are brand-driven, and coffee lovers who are more conscious about getting value for their money.

The study showed that although the international brands are fewer compared to a proliferating local and independent coffeehouses, customers still chose to go to the former because of a strong brand perception and a different set of expectations. This shows how international chains have effectively implemented the “Generic and Interactive Strategy”, and still remain profitable in South Korea, whereas the rest of their local counterparts used the so-called “Extensive Product Line Strategy”

In the case of local and independent coffeehouses, despite the lack of an international reputation, the operators can leverage on offering an environment that carries a unique theme or concept, which the study concluded is the most significant factor that influences a customer’s choice.

Their recommendation to the local coffeehouses is for them to continue focusing on coffee lovers market by providing good quality coffee. On the contrary, instead of adapting their products to suit the local market, the international brands should continue targeting their market segment by creating lifestyle and brand building.

**Topic:** “Low Cost Carrier (LCC) Industry In South Korea.”

Using Porter’s Diamond Model, a concept to measure a country’s strengths in relation to a particular industry, the second group of ‘student consultants’ agreed that, in order for the five Korean LCCs to tap into international inbound and domestic outbound markets, protectionism has to be abolished.

The study showed that the South Korean government’s policy which regulates foreign competition to protect its infant industry is counter-productive. “Even pricing is regulated to avoid LCCs from sparking a price war with each other. This form of protectionism has restricted the South Korean LCCs from competing aggressively in the region.”

Drawing a Malaysian example from AirAsia, the LCCs are able to penetrate to other countries due to the open skies agreement. Malaysia has signed ASEAN’s open skies agreement with 3rd, 4th and 5th freedom traffic rights between all ASEAN countries with unlimited frequency. Malaysia’s aviation industry is set to benefit from these long term strategies with international collaboration for sustainable growth. As such, Malaysia’s LCCs are forecasted to record strong growth and market penetration over the next decade. This is the national advantage that Malaysia has over South Korea, despite both governments having actively invested, developed and upgraded their airports for the past decade.

At the moment, two of the LCCs (jeju Air and Air Busan) have decided to slowly switch their planes from hybrid model to low cost model in order to lower their prices. When the restrictions are removed, albeit gradually, South Korean LCCs will be able to compete aggressively in the international market.

Given that the physical resources, capital investment and infrastructure in both countries are relatively well-developed, it is South Korea’s emphasis and advantages on human resource development and information technology that will give it the additional edge to overtake Malaysia.

The country has a large pool of highly professional, educated and skilled workforce ready for the LCC industry. Flight academies in South Korea are mainly privately-owned but they receive funding from the Government. Flight attendants are well-groomed, and have good communication and technical skills. This eliminates the need for LCCs to train their own flight attendants; hence, it increases the possibility of achieving service consistency which helps to boost the industry as a whole.
Meaningful Collaborations

The criminal justice system in Malaysia is still evolving and there is a strong demand for suitably trained professionals in the country who will be able to support the system.

This was the view expressed by Paul Linus Andrews, Head of Department of Law at Sunway University Business School, after spending a stint of four months as a postgraduate student at Lancaster University recently.

“In the United Kingdom, the criminal justice system has undergone a number of phases in its development and it appears that we have a lot of catching up to do. There are therefore perceived gaps in the state of the criminal justice system in Malaysia and this also means that there are research gaps to explore in Malaysia,” Andrews said.

His research interest, for which he hopes to submit as his thesis for a PhD in Law with Lancaster University, is in the area of juvenile justice. He is looking at the diversion in the criminal justice system, specifically focusing on young offenders.

“I believe that there is a valid argument that first-time young offenders should be diverted out of the criminal justice system, where they do not need to go through the entire process of court proceedings, prosecution and prison as adults would. Instead, we have to look at alternative ways in dealing with young offenders,” he said.

According to Andrews, this is a burgeoning research area and there are a lot of opportunities to explore the scope of “diversion” as an alternative approach. The opportunity to conduct research in this area also creates an opportunity for a critical academic voice in the youth justice system in the country to be heard.

Sunway-Lancaster Collaborations

Andrews is one of the first Sunway staff to benefit from the Sunway-Lancaster joint-staff postgraduate development programme, a commitment between the two universities towards staff development.

Under the Sunway-Lancaster PhD scholarship, Andrews will be spending a total of four months a year on paid study leave at Lancaster University for the next three to four years or the entire duration of his PhD programme.

The scholarship covers his full tuition fees and flights, where he meets with his supervisor for his PhD work and academic staff at the Lancaster Law School to further enhance the collaboration between Lancaster University and Sunway University. This is a unique arrangement as the scholarship is drawn from a specific fund set aside solely for the purpose of joint staff development between the universities.

As a further extension of the collaboration, Andrews hopes to facilitate the introduction of new degree programmes at Sunway University. With the help of Lancaster University Law School, Andrews is working with colleagues in the Psychology Department on the possibility of introducing a bachelor’s degree that combines Psychology with Criminology - probably the first of such combination in Malaysia – which he hopes will enable graduates to secure employment opportunities within the criminal justice system or with international agencies such as UNDP and UNICEF.

“Lancaster has a strong specialisation in criminology,” Andrews said. “Although criminology is a fairly new area in Malaysia, we hope to increase our knowledge in that area and provide opportunities for students to study the subject, in order to help them deal with crime-related issues and to also merge that with an understanding of broader mental health issues.”

It is likely that in the coming years, there will be a high demand for such professionals as our criminal justice system undergoes its own process of development and change.

Local Collaborations

The Sunway-Lancaster collaboration has also facilitated opportunities to leverage on other stakeholders who are connected to the wider context of understanding crime in Malaysia. “We hope to tap on Lancaster’s experience in criminology to work with other agencies and organisations in Malaysia. For example, plans are underfoot to work with the Selangor Chapter for the Malaysia Crime Prevention Foundation (MCPF), where Tan Sri (Dr) Jeffrey Cheah is the chairman, to facilitate greater research on matters related to the occurrence and prevention of crime,” Andrews added.

As an Executive Council member of the MCPF, Andrews also hopes to link academics in Lancaster with the Malaysian police force as Lancaster has done with their local force. This assists in the creation of academic input in certain areas that impacts on policing.

There are also opportunities to develop social entrepreneurship programmes with non-government organisations in Malaysia. “We should consider efforts towards helping juveniles or young offenders to develop the culture of social entrepreneurship and see how they can fit back into society through social entrepreneurship,” he elaborated.

“Eventually, we hope to also introduce a degree in entrepreneurship.”

This particular aspect links Sunway Institute of Social Entrepreneurship and Lancaster Institute for Entrepreneurship and Enterprise Development with potential local non-government organisations which have already been involved in such matters.

First-hand Experience

Throughout his stint in Lancaster from September to December 2013, Andrews was provided an office space to work in and had access to all facilities accorded to a full-time postgraduate research student. Much of his time was spent on exploring his research area with his supervisors particularly on defining his specific research scope and attending some lectures on modules connected to the broader scope of postgraduate studies.

In September this year he will return to Lancaster to appear before a panel at Lancaster University to seek confirmation
of his status as a PhD holder. This is a normal process where a decision will be made on the merits of his research proposal as a basis for a viable original piece of academic research. Following which Andrews will have two years to complete his PhD and will make two further trips in the same manner. In the spirit of the collaboration, there are also plans to facilitate his supervisors coming out to Malaysia to explore potential in their specific areas of research.

“Overall, the experience as a postgraduate student at Lancaster was very helpful,” he said. “I learnt to interact with local as well as international students and also with the academic staff. I cannot put a price to the value of that experience. The time spent are the intangibles of the relationship. So, the collaboration between the two universities is not just about the exchange of documents and processes, but also about people physically crossing borders and interacting with one another.”

In fact, Andrews added, “The Lancaster-Sunway commitment is open to all staff in Sunway. It is a unique endeavour and it gives Sunway staff a fantastic opportunity to obtain a PhD,” he said. “What I am really thankful for is the good team I have in the Law Department at Sunway which made it possible for me to be away for a few months. Without their willingness to take on added responsibilities in my absence, the opportunity to be away would have been difficult to achieve.”
Sunway University’s Vice Chancellor, Professor Graeme Wilkinson said the collaboration between industry and academia will help to bridge the gap. “We look forward to listening to your advice on how to provide the best quality education to our students,” he said during his opening speech for Employers’ Appreciation Tea.

Three senior management personnel were among those who recently attended a special Employers’ Appreciation Tea, organised by Sunway University’s Student Services Department. They shared their opinions on Sunway’s graduates.

Andrew Lau, who is in charge of Leaderonomics (Campus division), was full of praise for Joshua Yee, a business management intern from Sunway University. Leaderonomics is a social enterprise dedicated to developing and training leaders of the future generation.

“I find it great that Joshua is capable of analysing, thinking and planning ahead,” Andrew said. “He is also proactive. He mingles well with his colleagues and I do not have to micro-manage his work. I value all his good ideas and suggestions.”

Sunway Group’s General Manager, Organisational Development and Recruitment, Foo Shiang Wyne said that she, too, is pleased with two of her current team members, Felicia Choong and Lai Yng Jiun, who are respectively the Assistant Manager of Organisational Development and Human Resource Executive, under Sunway Group Human Resource.

Felicia who came through the Sunway Managerial Advancement for Recruited Talents (SMART Programme) is promising and progressing very well whilst Lai, who has been with the Group for the past three years, is described as “independent and resourceful”.

Foo was so happy with the quality of Sunway students that last year, she continued to recruit from Sunway University, and successfully brought onboard another two top graduates to join the Group. Sunway’s Valedictorian for 2013, Lee Ying Ying and Perlyn Ng Kah Yerng were hired through the SMART Programme.

“We are interested to continuously recruit from Sunway University, as so far we have hired high quality candidates,” Foo said. “The two new hires, Lee and Perlyn came through very well. They impressed me with their desire to learn and ability to speak with confidence. Lee is very active with Toastmasters to improve her public speaking skills, while Perlyn, prior to joining us, took the challenge of doing direct-selling to strengthen her confidence. They knew where they were lacking and took initiatives to enhance their competencies on their own accord.”

Khor Jeen Eu, Director of Corporate Accounting for DELL Asia Pacific and Japan, also said that his company is looking for “students with solid technical foundation, drive and a strong ability to adapt in an increasingly globalised environment.”

“Sunway provides all-rounded education that produces graduates who are driven and able to contribute to the industry,” he told the blaze team.
A New Student Council installed!

The new-minted Student Council for 2014/15 is gearing up for new challenges ahead.

The newly elected president, Teoh Han Ee pledged that the Council will be supporting the university on its way to become the Harvard of the East. “There will be challenges and struggles,” he said. “At the same time, there is hope for a brighter future.”

The Council, he added, will focus on reaching out and collaborating with other student bodies at Sunway University in an effort to do more for the benefit and enrichment of all students.

Collaborations earlier this year with the Faculty of Science and Technology enabled the Student Council to successfully carry out two events – Sunway Valentines 2014 and the Sunway University on-campus PC Fair.

“For this year, we are launching a string of events that will help establish our Council as a solid foundation for students,” he said. “One of the key events will be the Safety Awareness Campaign. This campaign serves to create greater awareness amongst students that Safety and Self-Defence is key to fight crimes.”

The Safety Week will include booths for students to gather information, talks from external parties, the distribution of alarm devices and many other activities.

Another programme that is in the pipeline is the Leadership Camp which aims to enhance co-operation between student bodies and the Management at Sunway University.

Serving as the bridge between the student community and the University, the Student Council is the governing body for the Sunway University Student Association.

Last year, the Council organised a month-long fundraising campaign with the Sunway Volunteer Society and managed to raise a disaster relief fund worth RM11,600 for World Vision Malaysia and Mercy Malaysia for Typhoon Haiyan victims in Philippines.

They also organised a community service event together with 47 other Sunway students. The students spent a day at the Ti-Ratana Welfare Society, helping with spring cleaning and distributing supplements sponsored by the Student Services Department.

Student Council Board (2014/2015)

Teoh Han Ee
President

Regina Lee Jin Nah
Vice President

Yeoh Guan Aik
General Secretary

Ng Chian Pin
Treasurer

Adrian Chia Yao Yit
Student Welfare Director

Boo Kean Siong
Advertising & Promotion Director

Thinesh Naidu Nagiah
International Students Director

Ong Shang Kheng
Director of Extracurricular Activities

Ang Shuo Yan
Academic Affairs Director

Kularetnam A/L Vijayakumar
Community Service Director
Calvin Yong graduated from the American Degree Transfer Program (ADTP) at Sunway University in Spring 2008 Summa Cum Laude. He had since enrolled as a Molecular and Cellular Neuroscience student with Hiram College, Ohio, United States of America, which accepted all of his 69 ADTP credits and granted him an annual scholarship of USD 28,000. With that, his family only had to fork out USD 5,000 for tuition fees annually!

“Hiram College is a beautiful rural college located about 45 minutes away from Cleveland in Ohio. It is home to a wonderfully warm, caring and welcoming community,” Calvin wrote recently. “I enjoy watching the leaves turn into many different colour during fall season; and during spring, fragrant flowers bloom!”

After graduating from Hiram College in Spring 2011, Calvin is currently employed by the US Government as a Healthcare Specialist. He is responsible for patient administration, patient medical history interviews, conducting simple non-invasive medical tests, taking vitals, phlebotomy and giving an initial diagnosis or assessment of the patients.

Prior to his work as a Healthcare Specialist, he had experience working as a psychotherapy assistant at Case Western Reserve University and as a Laboratory Technician in Molecular Pathology in one of the latest and most advanced laboratories, the Cleveland Clinic. “Ohio is an awesome state for the healthcare industry and research!” he opined.

Research
Among his many research projects at Hiram, two stood out in his mind. “The first was the fluorescent tagging of proteins expressed from HOX20 gene in the hindbrain of Xenopus tropicalis (a small, tropical frog) during neurodevelopment from embryo to adulthood,” he said. “It was a professor’s research project and students were encouraged to participate in doctorate level research on the frogs.”

The second project was his own capstone research project where he was researching the link between migraines, abnormal curvature of the cervical spine and the effectiveness of chiropractic care. “My research shows that the abnormal curvature most likely agitates the greater occipital nerve, which causes migraine-like symptoms and that chiropractic care is rather effective in relieving the said symptoms by restoring the curvature,” he said. “It involved an entire summer of clinical interviews and interpreting patients’ X-ray films as well as two semesters worth of data mining with literature reviews.”

Calvin’s interest in biology and psychology stems from the fact that he believes that the mind can influence the wellbeing of the body, and vice versa. Giving the example of someone who is constantly feeling depressed, Calvin elaborated: “You can alter your own body’s neuronal pathways to the point that being depressed would become your norm. The same thing can happen when we learn to think positively; it would be easier for us to feel that way when faced with negative situations.”
**Future Plans**

Calvin intends to further his education, where he hopes to be a physician in either Neurology or Neurosurgery, and a researcher at a medical institution after completing his PhD in Neuroscience, specialising in traumatic brain injury and recovery. “There are so many serious cases of concussions - either from a bomb blast in a warzone, participation in certain contact sports or motor vehicle collisions - but there is not enough expertise out there to meet the demand in the field,” he said.

Yong opined that the quantification of the severity of brain injury through a simple laboratory test will pave the way for treatment to prevent or reverse brain injury. “I am trying to figure out a way to test for Tau proteins, either through spinal cord fluid or blood,” he said. “Recent research has found out that Tau proteins are only expressed by neurons in the brain when a person has either Alzheimer’s Disease or some form of brain injury, which affects brain functions such as memory or motor movement. The setback is that, at present, we can only test Tau proteins by carrying out a post-mortem examination after the patient has passed away.”

Currently, he is being considered for the MD-PhD dual programme at Cleveland Clinic Lerner College of Medicine and Research Institute in Ohio (his former workplace). “I am keeping my options open,” he said. “I am also hoping for the greenlight from the Uniformed Services University of Health Sciences in Bethesda, Maryland (near Washington DC).”

The ambitious young man said that he understands the MD-PhD programme will be a challenging programme, because he has to complete both medical school and an Honours research thesis. But the financial aid will be ample to help cover the cost of education once he is accepted into the programme.

As an alumnus of Sunway, Calvin advises his juniors, “Be very creative and welcome as many different forms of thinking and opportunities. It helps to have a critical mind to be able to think outside the box which will help in designing experiments for research or solving problems in the healthcare industry.”

“If you intend to pursue Neuroscience (or anything in the healthcare industry in general), be prepared to further your studies to a master or doctorate level as well as expose yourself to different career options in the field such as patient care, research, healthcare marketing and laboratory testing. Start early in your college by doing internships and voluntary work in your field of interest to open doors of career opportunity, even before graduation!”

— blaze
Banu a/p Radhakrishnan

With a Diploma in Interior Design from Sunway University Faculty of Arts, 29-year-old Banu a/p Radhakrishnan hopes to be her own boss some day.

Like many other aspiring graduates, her major focus now is to develop her niche, while working with Jen Design and Displays. She has been with the company for the past four years. One of her major tasks currently is to help design showrooms for Yamaha Music School throughout the country.

She hopes that with many more years of experience, she will be able someday to set up her own office in the Klang Valley and operate a distinguished interior design firm. “This has always been one of my goals in life,” she said. “Currently, I am committed fully to my employer one hundred percent; but with my spare time, I take on a few small projects on a part-time basis.”

The graduate from July 2009 cohort who always believes in lifelong learning, is still learning new skills every day. Attributing this passion to learn to her days as a student at Sunway University, she said: “At Sunway, I gained lots of knowledge about detailing drawing, structure works, site work and handling clients. I have learnt to be very patient when facing problems from clients and their workers.”

Koh Jun Yee

This Chancellor Scholarship recipient, Koh Jun Yee, is currently in the HSBC Management Development Programme as an Executive Trainee.

Calling it a blessing, the scholarship was jointly awarded by Sunway University and Lancaster University that covered her full tuition fee and her two-week long study trip to the United Kingdom.

She attributes her success to all her family members, her mentor Shee Ghee from the Sunway Mentoring Programme, and both Sunway University and Lancaster University for the resourceful and experienced lecturers, career counsellors who offered valuable advice and training opportunities, and also those who had contributed to her three years of wonderful university experience.

“It was Shee Ghee who inspired me to sign up for Chartered Financial Analyst (CFA) at Sunway TES after graduating with the Bachelor of Accounting and Finance,” she said. “I sat for the CFA Level I exam in June.”

Besides studies, Jun Yee also actively participated in competitions and voluntary activities. Among the awards she received included First Runner Up in Youth Leadership Academy launched by McKinsey & Co, Top 10 for Young Tax Professional of the Year 2013 by Ernst & Young, and also National Finalist in Innovative Youth, Future Business Leader Case Study Competition.

As a fan of The Piano Guys, an American musical group, Jun Yee had also learnt to play cello, during her final year studies to further enrich her degree.

Jun Yee would like to leave behind a quote for her juniors: “Do something today that your future will thank you for.”
Currently working as a Painting Teacher-cum-Designer at The Studio@KL, Joseph Yap Kim Sung teaches children art and design, besides designing flyers for the studio.

The Studio@KL provides residents in Kuala Lumpur with a high quality, friendly and relaxing environment for Art Jamming events such as birthdays, get-togethers, corporate and team building events. It is also involved in in-house and mobile social groups and art classes for both children and adults.

He has been working with Solaris Dutamas, Publika, the company which owns and operates The Studio@KL since January this year. “Prior to this, I was a freelance designer,” he said. “I also interned for three months with the Graphic Design Association of Malaysia (wREGA).”

An active volunteer and participant of major designing events, Joseph worked as a volunteer in the KL Design Week, Designers Weekend, and some other local or overseas events involving artists and designers.

“I have always had the passion to beautify the world that we live in and to make it more playful,” he said. “This has inspired me to choose this industry. Design always brings out fresh and new stuff in society. Designers and artists are always one of a kind with their style and attitude. That is why I have decided to use what I have learnt best!”

At university, Joseph majored in graphic design. “A college education has prepared me for the field that I have ventured into. I have never strayed away from the path since the day I started the course,” he said.

Joseph graduated from Sunway University with a Diploma in Graphic and Multimedia Design in 2009. He then moved on to another institution to complete his Bachelor of Arts (Hons) in Graphic Design.

Cheah Renn Zhern completed his BSc (Hons) Psychology at Sunway University in 2010.

After completing his Master’s degree in Australia in early 2013, he started working as a psychologist at a private practice in Perth. He currently works with children, adolescents and adults with mental health difficulties such as depression, bipolar disorder, Post-Traumatic Stress Disorder, chronic pain, addiction and bereavement.

Because of the practical component of his Masters’ programme, Cheah had had numerous opportunities to work with the general public. His job was to assess and treat a range of psychological disorders, besides working in a forensic setting dealing with sexual offenders.

“The dual certification degree that I earned from Sunway and Lancaster University have equipped me to pursue my Master’s degree in Australia,” he said. “As I had to submit a thesis for the Masters programme, it was the strong research component in the Sunway degree that helped me a great deal!”

Attributing his ability to cope with the pressure faced during his Master’s programme, Cheah said that the pressure and stress experienced from completing assignments at Sunway had surprisingly prepared him for the postgraduate programme. “Looking back, I have my lecturers at Sunway to thank,” he said.

Returning home once a year for a food binge, he makes the effort to visit the Sunway staff and lecturers who had helped him. “Life in Australia is fun and exciting, especially when you get to meet new people, try new food, and embrace a culture different from your own,” he said. “I must say, though, I miss Malaysian food terribly!”

Cheah Renn Zhern
INTERNATIONAL INNOVATORS

Sunway University’s Computing teams triumphed at the 25th International Invention, Innovation & Technology Exhibition (ITEX 2014).

3 Gold • 2 Silver

Gold Medal
Cognitive Radio Technology with Networking and Security Enhancements applied to Wireless Surveillance Systems

[From left to right]
- Mr Syed Aquel Raza
  Doctor of Philosophy (Computing) student
- Mr Dharmindran Ananthasekaran
  Teaching Fellow
- Ms Ling Mee Hong
  Senior Lecturer
- Dr Yau Kok Lim
  Senior Lecturer

Gold Medal
Real-Time Smart Street Lighting System (RSSLS)

[From left to right]
- Mr Eu Kok Seng
  Doctor of Philosophy (Computing) student
- Assoc. Prof. Dr Yap Kian Meng
  Associate Professor
- Mr Shariff Al Arif
  BSc (Hons) Information Technology student
- Mr Too Tian Hooi
  MSc in Computer Science (Cyber Security) student

Silver Medal
Stereo-Vision Guidance System

[From left to right]
- Dr Chia Wei Chong
  Senior Lecturer
- Mr Yeong Lee Seng
  Lecturer
- Mr. Fadil Mohamadally
  MSc in Computer Science (Cyber Security) student

Silver Medal
Autonomous Self Sustained and Self Organised Broadcasting Overlay System

[From left to right]
- Assoc. Prof. Dr Lim Tong Ming
  Head - Centre for Innovation and Industry Linkages
- Mr Vicky Lim Min How
  MSc in Computer Science (Cyber Security) graduate
- Ms Angela Lee Siwei Hoong
  Lecturer
- Mr Chin Yeek Min
  Lecturer

ITEX, Asia’s top ranked invention exhibition, is an annual platform that connects local and...