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As prison officers, we help inmates take ownership of their own rehabilitation, by positively influencing them to renew their family bonds and reintegrate into society – all while ensuring we enforce discipline.

**SUPERINTENDENT 1A NG KAILIN**  
Recipient of the Ministry of Home Affairs Uniformed Scholarship (SPS)



PHOTO: SPH MEDIA



# Rehabilitation through firmness and empathy

Impacting those behind bars comes down to making meaningful connections, says this MHA Uniformed Scholarship (SPS) holder

» By Bryant Chan

One of the first inmates assigned to Superintendent 1A (Supt 1A) Ng Kailin was not the easiest to deal with. She was uncooperative and verbally abusive towards others.

At that point, Supt 1A Ng was fresh out of training school, as a Housing Unit Officer (now known as Senior Correctional Unit Officer) at the former Changi Women's Prison. And it was her job to rehabilitate the inmate – a job easier said than done.

The foreign inmate's behaviour was challenging. Defensive and hurtful, she was a constant drain on the morale of other prison officers and fellow inmates. Rehabilitating her would require a different approach.

Choosing to respond to her hostility with kindness and firmness, Supt 1A Ng found opportunities to talk to her, and remained patient when the inmate did not reciprocate.

After about three months of persistence, Supt 1A Ng finally started to see some progress and eventually a breakthrough.

"We persevered and she became more compliant as she realised the attention she wanted was better achieved when she worked with us and not against us," says Supt 1A Ng, 38.

After the inmate's release, the Singapore Prison Service (SPS)

team received a letter from her, thanking them for their support during her incarceration.

"It felt so awesome," she says. "You never know when you can impact someone. It's what makes this job rewarding."

That is what it means to be Captains of Lives in the SPS, says Supt 1A Ng.

"As prison officers, we help inmates take ownership of their own rehabilitation, by positively influencing them to renew their family bonds and reintegrate into society – all while ensuring we enforce discipline."

Initially, Supt 1A Ng did not want to be a prison officer.

Her keen interest in psychology had her torn between a teaching scholarship and one with the SPS. She was eventually swayed after attending scholarship talks given by SPS officers.

"I decided it would be especially meaningful to make a difference in the lives of inmates and their families," she recalls.

This led her to apply for the Local Merit Award under the Ministry of Home Affairs (MHA) Uniformed Scholarship scheme, allowing her to study psychology as an undergraduate at the National University of Singapore.

Her career path as an MHA scholar also led her to pursue a fully sponsored nine-month Master of Science in Criminology at the University of Pennsylvania in the United States.

Even with this relevant

knowledge, Supt 1A Ng is aware of the challenges that come with being a prison officer.

"SPS officers can expect to be subjected to verbal abuse and high amounts of mental stress. Occasionally, inmates may also get violent," she says.

The prison is a tough work environment, but she says "this is the place to be if you believe in the mission just like we do".

**On a transformation mission**

Today, Supt 1A Ng is on rotation with the MHA as a deputy director overseeing rehabilitation in the Policy Development Division.

Working closely with SPS and the Central Narcotics Bureau, she is an integral driving force behind the recent tightening of drug laws.

While it is a significant departure from the ground work she did as a prison officer – collaborating with inmates and like-minded colleagues – Supt 1A Ng says she is grateful for the opportunity to work on policies aimed at keeping Singaporeans safe.

"I've seen how addiction tears families apart," she says.

This is why Supt 1A Ng is most passionate about being on the ground and working directly with inmates, which she will continue to do once her secondment ends.

"I love my job as a prison officer," she says.



Knowing that I am the trusted adult for these students reminds me that, even if it is just for a brief moment in time, I have made a difference in their lives.

**MS LEE MIAN JUN**  
Recipient of the MOE Education Merit Scholarship



PHOTO: SPH MEDIA

# Touching lives through personal connections

This MOE Education Merit Scholarship holder shares how small acts of kindness can make a lasting impact on students

» By Marianne Tan

At her secondary school graduation, Ms Lee Mian Jun's Language Arts teacher gifted her a poem which has stayed with her till this day.

"It was 'Ithaka' by the Greek poet Constantine P. Cavafy," recalls the 29-year-old. "It spoke about the importance of not rushing to a destination."

Elaborating on its meaning, she says the poem "reminds us that life is about adventure and discovery; it is not just the destination that matters, but also the journey."

What might have been a simple parting gift from a teacher turned out to be one of the defining moments of her life.

Together with a fond memory about a primary school teacher who told her that her smile could brighten someone else's day, and to smile through any challenges she might face, these interactions have crystallised in her mind and showed her the difference teachers could make in one's life.

"Making big waves of change are beyond me; instead, I believe in the power of small, personal connections like these, at an individual level," she says.

"That is why I applied for the Education Merit Scholarship offered by the Ministry of Education (MOE). I hope to become a teacher who, through such personal touches, will make a difference for my students too."

Ms Lee was awarded the MOE scholarship in 2013 to pursue a Bachelor of Arts in Sociology and a minor in

psychology at Barnard College in New York City, and later, a Master of Arts in the Teaching of Social Studies at Teachers College, Columbia University.

Besides offering financial support, the scholarship also provided her with a multitude of learning opportunities both within and outside of the teaching profession.

On a teaching internship at Queensway Secondary School, she was assigned to work on a project that gave her insights into the internal processes of the school, as well as relief teaching duties.

**Focus on shaping lives**

Ms Lee is currently seconded to the Planning Office under the Communications and Engagement Group at MOE's headquarters, following a three-year teaching stint at Gan Eng Seng School, where she taught social studies and music.

Although not directly related to the teaching profession, Ms Lee's involvement in projects that strengthen the ministry's policy communication and engagement efforts has helped her "understand the considerations behind certain policies and how they were shaped with the students in mind".

Since joining the profession, she has never lost sight of why she chose to join the education sector in the first place: To make an impact on her students' lives.

Ms Lee will never forget the heart-to-heart talks she has

had with students from underprivileged family backgrounds, and how she had helped them overcome some of the emotional challenges.

She was particularly touched when one of her students shared with her video clips of a family outing.

"Even though it was just a small gesture, the fact that he trusted me enough to share a good memory he had with his family reminded me that I had the opportunity to help my students grow and, hopefully, become the best versions of themselves," she says.

Having checked in with some of these students since their graduation, she is heartened to learn that they are doing well.

"It is nice to touch base with them and let them know I am around if they ever need to reach out," she says. "Knowing that I am the trusted adult for these students reminds me that, even if it is just for a brief moment in time, I have made a difference in their lives."

For aspiring teachers looking to apply for the scholarship, she advises dipping a toe into the field before taking the plunge.

"MOE offers a variety of opportunities to get a taste of life as a teacher – from relief teaching to the Teaching Internship Programme," says the MOE scholar.

"These not only help you understand what a teacher does, but also gives you the chance to interact with and learn from other teachers before you commit to a career."



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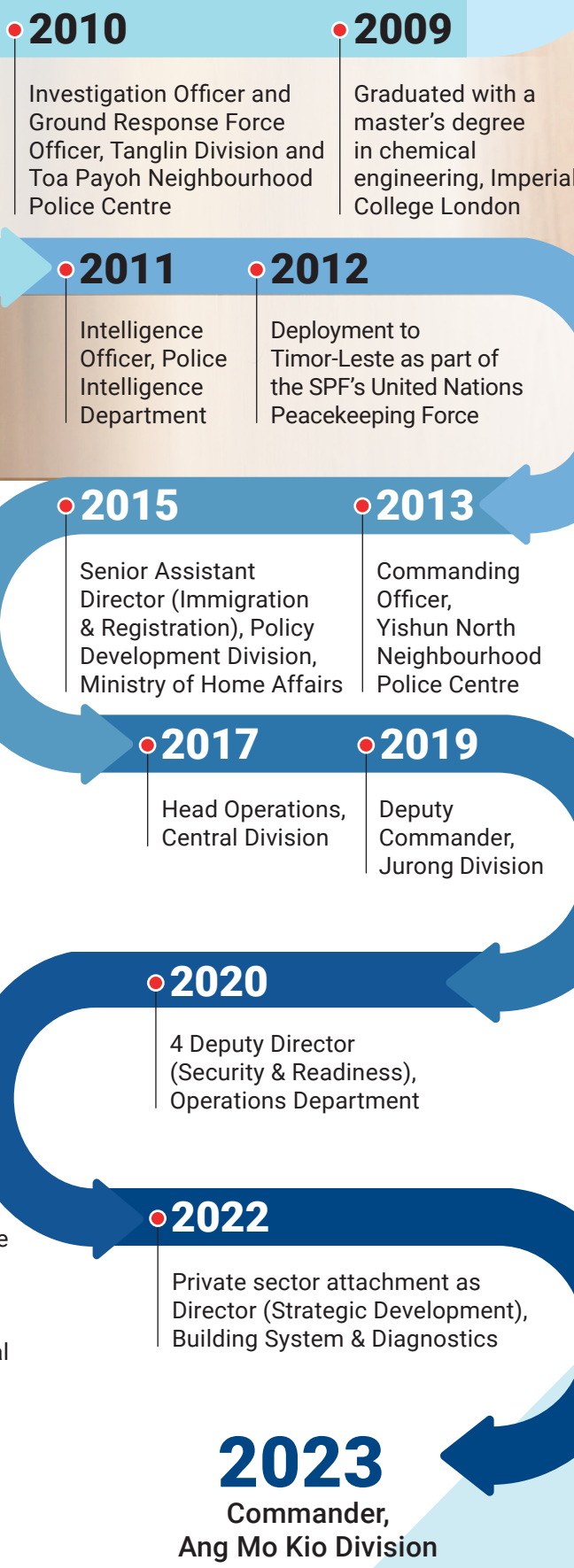
# Beyond LAW AND ORDER

From UN peacekeeping to sustainability reporting, diverse postings helped to sharpen this SPF scholar's skills in leadership and strategic thinking



## A POLICE OFFICER'S CAREER

SPF scholar Xie Xingmao rose rapidly through the ranks with a variety of postings, each helping to enhance his strategic thinking and leadership.



**E**arlier this year in May, Timor-Leste held parliamentary elections, the fifth since its independence in 2002. To the average Singaporean, this news may not carry much weight. However, for Assistant Commissioner of Police (AC) Xie Xingmao, it represents the culmination of global efforts to help Asia's youngest nation find its footing – efforts in which he played a small yet memorable role over a decade ago.

As part of the Singapore Police Force (SPF) United Nations Peacekeeping Force, AC Xie was deployed to Timor-Leste in 2012. The SPF Scholarship recipient helped local police build up intelligence capabilities ahead of the nation's presidential and general elections that were held in the same year.

"Protestors were clashing on the streets, throwing fire bombs at one another, setting up roadblocks and throwing rocks at UN vehicles," recalls the 37-year-old officer. His unit gathered information from citizens and relayed it to ground forces, enabling police to prevent riots from happening.

The year-long stint in Timor-Leste is but one of myriad postings across the public service and private sector that have characterised the scholar's 14 years in the Force. AC Xie currently oversees the Ang Mo Kio Division.

Past recipients of the SPF Scholarship (previously known as the SPF Overseas Scholarship) include Deputy Prime Minister Heng Swee Keat and Head of Civil Service Leo Yip. Like those before him, AC Xie's diverse career exposure has shaped him into a strategic leader who is well-positioned to take Singapore further.

"SPF is a uniformed organisation. As part of career development, leadership comes up quickly," he says. "At a young age – maybe in your early 30s – you will be asked to lead about 80 to 100 people."

### Finding the right fit

How did someone who once dreamt of becoming a chemical engineer end up donning a police uniform? AC Xie's path to joining the SPF began after a two-day attachment with the Force in 2005, under a programme to introduce potential scholars to police work.

Witnessing officers deal with criminals and victims, the then 19-year-old was drawn to how officers served society.

"I felt their impact in the lives of families who had been torn apart due to crime, violence and gambling debts," he says.

On top of that, he liked that it was not an office job.

"Policing offers the opportunity to interact with the public at the frontline, at different levels, on top of desk-bound duties," he adds.

▲ Assistant Commissioner of Police Xie Xingmao was appointed to his current post at Ang Mo Kio Division in May. PHOTO: SPH MEDIA

▶ AC Xie (third from left) joined participants at the Delta League Community Day event held at the Police Community Roadshow in One Punggol in June. PHOTO: SINGAPORE POLICE FORCE



After meeting former graduates who had studied chemical engineering but worked in industries like finance and consulting, AC Xie realised his passion for science might not guarantee him the meaningful career that he was looking for.

"This challenged my thoughts of just wanting an overseas education and seeing myself working in a chemical plant till my 50s," he says.

"Ultimately, I decided to go for a scholarship that would provide me with a career that could give me the best growth as a person."

After graduating from Imperial College London with a master's degree in chemical engineering, AC Xie kicked off his career in the SPF as an Investigation Officer and Ground Response Force Officer at Tanglin Division and Toa Payoh Neighbourhood Police Centre respectively.

From the outset, he was roped into projects to study solutions to issues faced by the Force. This equipped the scholar with a big-picture understanding of the organisation's direction and goals, and set the stage for his development as a leader.

### Becoming a strategic thinker

In the following years, more postings further deepened AC Xie's understanding of high-level issues faced by Singapore.

They included a stint at the Ministry of Home Affairs, where he worked with the Immigration and Checkpoints Authority on policies related to naturalisation and drafted legislation for the collection of iris images to enhance border security.

Within the SPF, he also oversaw policies on the planning of major events such as the National Day Parade and Asean Summit, enhanced operational readiness of the SPF and crafted security and counter-terrorism measures.

During the Covid-19 pandemic, AC Xie also ran police operations to control the spread of the virus in migrant worker dormitories while providing for the welfare of migrant workers.

His most recent attachment to the private sector – as a director at building consultancy firm Building System & Diagnostics – saw him develop expertise in green building technology, carbon accounting and ESG (environmental, social and governance) reporting. These are lessons that he could apply back at the Force as part of Singapore's efforts to meet its climate change commitments for 2050.

Taken together, these experiences have equipped AC Xie with a powerful understanding of the complexities surrounding law and order, international borders, and political and social issues – enabling him to help the nation deal with emerging threats and handle crises as they arise.

"The SPF Scholarship developed my leadership and strategic thinking, which allowed me to think ahead about the challenges that the Force and the public service will face, and deal with them through innovation and collaboration with the community as well as private organisations," says AC Xie.

"All in all, I have achieved – and am still achieving – what I sought: growth as a person and leader," he adds. "All these experiences, spanning different areas of work, put me on a path of constant development."

**Ultimately, I decided to go for a scholarship that would provide me with a career that could give me the best growth as a person.**

**ASSISTANT COMMISSIONER OF POLICE XIE XINGMAO**  
Recipient of the SPF Scholarship

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Scan for more on the Singapore Police Force Scholarship.





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Commander  
Ang Mo Kio  
Police Division



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# How his real-life experiences are fuelling NATIONAL SAFETY

Whether it is putting out a blaze or strategising about emergency responses, this MHA scholar (SCDF) is always dedicated to his nation and its people

It may have been almost seven years ago, but the memory of the 2016 CK Building fire – massive plumes of dark smoke, shattering glass and exploding aerosol cans – still remains fresh in Lieutenant-Colonel (LTC) Rayner Oon's mind.

As a commander with only three years of service under his belt at the time, the industrial fire at Tampines Street 92 was LTC Oon's first time dealing with an incident of such magnitude.

The 15-hour ordeal required then-Captain Oon, who was the primary coordinator for the CK Building firefighting efforts, and his team to fight the inferno in almost total darkness. With 110 personnel from the Singapore Civil Defence Force (SCDF) – almost the entire head count of Tampines Fire Station – and 27 emergency vehicles deployed, it took five hours to get the fire under control.

"Just the thought of there being someone who might need our help kept me going that day," says the 35-year-old. "It is why we train so hard – to save lives."

Miraculously, there were no fatalities and only a handful suffered minor fire-related injuries. For LTC Oon, the incident drove home the reality of an SCDF officer's responsibility – every action makes an impact.

#### An ambition to serve

More importantly, it reminded him why he had joined the SCDF in the first place.

When he was a teenager, LTC Oon saw an SCDF disaster relief operation on the news during the 2004 Indian Ocean tsunami. This instilled in him a lifelong interest in being there for people in their hour of need.

"The firefighting and rescue operations performed by the SCDF locally and overseas left a deep impression on me," he says. "I wanted to pick up life-saving skills and be a part of an organisation that keeps Singapore safe and secure."

This inspired him to apply for the Singapore Government Scholarship (SGS) under the Ministry of Home Affairs (MHA) Uniformed Scholarship scheme after his A levels. The scholarship allowed him to pursue his Master of Science in Advanced Chemical Engineering at Imperial College London.

"The analytical and problem-solving skills as well as the interpersonal and communication skills that I acquired during my studies have been essential in contributing to my career journey," he says.

Upon his return, LTC Oon spent nine months training at the Civil Defence Academy before being posted to Tampines Fire Station, where he served

as fire station commander.

Today, the CK Building's facade is pristine, with no signs of fire damage, and Tampines Fire Station has a new commander at the helm.

LTC Oon has also moved on to a new deployment – as the head of operations at the 1st SCDF Division Operations Branch – where his portfolio has expanded dramatically.



**Just the thought  
of there being  
someone who might  
need our help kept  
me going that day.  
It's why we train so  
hard – to save lives**

LIEUTENANT-COLONEL  
RAYNER OON

Recipient of the Ministry of Home Affairs  
Uniformed Scholarship (SCDF)



Major incidents such as a natural disaster, terrorist attack or fire fall within his division's territorial boundaries. He is second-in-command only to the division commander.

From being in charge of a single fire station, he is now engaged in policy work and is responsible for maintaining operational readiness for the eight fire stations that make up the 1st SCDF Division.

His experience on the front line has been invaluable in his current job scope.

"Policymaking is never done in a vacuum," he says. "Putting in place something that is both effective and practical must always be done with prior experience and knowledge on the ground."

He also plays a pivotal role in formulating contingency plans for major national events such as the National Day Parade, the annual Formula 1 Singapore Grand Prix race and most recently, Exercise Northstar XI, a counter-terrorism exercise, in March this year.

#### Being ready for a national emergency

Exercise Northstar XI is a Whole-of-Government (WOG), multi-agency exercise



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▲ In his current role, LTC Rayner Oon is involved in contingency plans for major national events such as the National Day Parade and the Exercise Northstar XI emergency response exercise. PHOTO: SPH MEDIA

▲ It took the Singapore Civil Defence Force hours to get the fire at CK Building in Tampines under control in 2016. PHOTO: ST FILE

that serves to stress-test the national agencies in responding to a major safety and security incident. The exercise also validates the WOG response framework and contingency plans that are in place to deal with such major emergencies.

The planning for Exercise Northstar XI was led by the SCDF and, in the months leading up to the exercise, LTC Oon and his team spent hours rehearsing tabletop scenarios, practising deployment drills and reviewing response plans.

The exercise scenario entailed a simulated terrorist attack on Jurong Island with the "perpetrators" detonating an improvised explosive device causing a chemical pipeline rupture and two oil tank fires. LTC Oon kept a cool head as he deployed his team, all the while liaising with the SCDF personnel already on-site for a better view of the situation.

The chemical pipeline leak and blaze were swiftly quelled and the "perpetrators" quickly apprehended.

"A lot of hard work was put in to prepare for this exercise," says LTC Oon. "Its culmination and successful execution was really quite rewarding."

Even though he may no longer be dispatched to front-line emergencies, LTC Oon's mission remains unchanged: To help those who need it, when they need it the most.

"One of the misconceptions people have about the SCDF is that it only has

firefighters and paramedics, but there are also many other positions and job scopes," he says.

"We do a lot of strategising and other prevention work to ensure Singapore is kept safe and secure."

The results of effective policymaking and planning may be less visible than operations on the ground, but LTC Oon knows his job behind the scenes is no less important than being on the front line.

After all, it's the constant vigilance of SCDF officers like him that keep millions of Singaporeans safe daily.

"It is extremely rewarding to know you are making a positive difference in people's lives," he says.

## MHA UNIFORMED SCHOLARSHIP

Depending on your interests and aspirations, this scholarship will allow you to kick-start your leadership journey as a uniformed officer in one of these five Home Team departments, namely Singapore Police Force (SPF), Singapore Civil Defence Force (SCDF), Immigration & Checkpoints Authority (ICA), Singapore Prison Service (SPS) and Central Narcotics Bureau (CNB), or as a paramedic with the SCDF.



Scan for more on the Ministry of Home Affairs Uniformed Scholarship.

► LTC Rayner Oon (third officer from Minister's left) with his 2nd SCDF Division colleagues during a visit by Minister of Home Affairs K Shanmugam in 2018. PHOTO: SINGAPORE CIVIL DEFENCE FORCE



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As our population ages, there is a greater need for more hands in this field. Ultimately, it solidified my desire to be someone in the position to show love to the ones who need it the most.

MS LEE SZE HWEE

Recipient of the Community Nursing Scholarship

Scan for more on the Community Nursing Scholarship.

# Finding meaning in nursing patients back to health

This MOHH scholar has a heart for the elderly and enjoys applying her skills to help patients along their journey to recovery

» By Audrey Ang

During her first-year clinical attachment at St Luke's Hospital, nursing student Lee Sze Hwee encountered an elderly patient who had suffered a severe stroke. It left the patient with impaired speech, making it difficult for her to verbalise her needs. She got visibly agitated until Ms Lee calmed her down by holding her hand.

Stirred by empathy and compassion, Ms Lee would visit the patient during her free time at work. She discovered that simply by being present, she could help assuage the patient's feelings of loneliness and fear of being alone in a foreign environment.

Through these heartwarming moments, the 22-year-old discovered her soft spot for the elderly. Her experience also strengthened her conviction to pursue nursing as a career.

She applied for the Community Nursing Scholarship offered by MOH Holdings (MOHH) in 2020 and is currently in her third year pursuing a degree in nursing at the Alice Lee Centre for Nursing Studies at the National University of Singapore.

Since young, Ms Lee had always been interested in nursing. While she had originally wanted to become a paediatric nurse, her recent 10-week-long clinical attachment at St Luke's Hospital opened her eyes to the growing needs of another vulnerable group of people – the elderly.

Singapore's population is ageing rapidly. According to the Ministry of Health, it became an aged society in 2017 and is set to attain "super-aged" status in 2026. By 2030,

one in four citizens will be aged 65 and above, up from one in six currently.

Even as the nation expands its community care initiatives to reduce the load on acute care hospitals, there remains a shortage of community nurses. These nurses work in community hospitals and community care facilities, and if they are part of the home care team, they may also be sent to patients' homes who require home nursing care.

## Broad set of skills

During her attachments, Ms Lee not only picked up various skills – from dressing wounds to dispensing medications orally, intravenously or subcutaneously – but she also discovered that a nursing career in the community care sector allows her to care for patients in a more holistic manner as compared with an acute hospital environment.

Having to chart each patient's progress and conduct full body assessments at every shift made her realise that community nurses play a critical role in the patient's recovery journey.

In addition, she also had to learn how to conduct caregiver training to equip caregivers with the skills and knowledge in aiding patients in their daily activities, or administering their medications.

Initially, Ms Lee was not aware of the diverse learning opportunities that community nursing offered. However, after interacting with more experienced nurses during both her first-year and third-year attachments, she realised that there are numerous career

pathways for nurses in community care.

Being able to apply in the real world the theories she learnt in school – from the names of drugs and their contraindications to the pathophysiology of diseases – made the postings with St Luke's Hospital even more fulfilling for Ms Lee.

"I truly enjoy being able to use my hands on the job and keep growing in my abilities when it comes to tasks such as administering injections or priming IV lines," she says.

The staff at St Luke's Hospital were extremely welcoming and ever willing to guide her, she adds.

Since taking up the scholarship, Ms Lee has become more aware of the urgent needs of Singapore's rapidly ageing community.

"As our population ages, there is a greater need for more hands in this field," she says.

"Ultimately, it solidified my desire to be someone in the position to show love to the ones who need it the most."

Third-year nursing student Lee Sze Hwee hopes to work with the elderly and make a difference in the field of community care.

# Making a big impact with tiny bacteria

From tackling obesity to boosting immunity, this A\*STAR scholar hopes to further unlock the significance of microbiome on our health

» By Rachel Chia

It may be decades before a scientist's work appears on the cover of a leading scientific journal, but Dr Ang Qi Yan clocked that achievement at just a little past 30 years old.

As part of her postdoctoral research at the Broad Institute of MIT and Harvard, the A\*STAR (Agency for Science, Technology and Research) scholar found a new type of gut bacteria that thrives during the period when babies switch from breast milk to solid food.

The discovery, which made the cover of Cell journal last November, will help medical professionals understand how the gut microbiome evolves during childhood so they can develop nutritional solutions – such as probiotics and dietary guidelines – to reduce the risk of diarrhoea and improve babies' immune systems.

"By advancing our understanding of microbiome development in early life, I hope to benefit children and society," says the 32-year-old senior research fellow at A\*STAR's Genome Institute of Singapore.

The Cell journal findings are the culmination of Dr Ang's 12 years of research training. As the daughter of a nurse, she developed an interest in biology at an early age and even won science awards in school.

When the time came to apply to university, her heart was set on A\*STAR's National Science Scholarship (BS-PhD). She enrolled at the University of Cambridge in Britain to study

biomedical sciences.

"I took up the scholarship with the goal of pursuing scientific research that would contribute to the advancement of human health," says Dr Ang. "It also offers support up to PhD level, which was unique among the scholarship offerings."

The A\*STAR scholarship is designed to provide students with the flexibility and opportunity to discover their niche in science research as they traverse the road to a doctorate and beyond.

Part of the arrangement includes a year-long research attachment at any of A\*STAR's research institutes before embarking on graduate studies. This is deductible from the six-year bond.

Dr Ang leveraged the opportunity to try out clinical research at A\*STAR's Clinical Nutrition Research Centre. There, she co-led a study that resulted in a new way to measure the activity of brown fat cells – fat that burns calories by generating heat – by using an infrared camera and a novel image processing algorithm. This work could be useful for developing new treatments to address obesity and related disorders.

Armed with a fresh interest in metabolism, she enrolled at the University of California, San Francisco, where she came across renowned microbiologist Peter Turnbaugh's work. He discovered that by transplanting gut microbiomes, it could change whether mice were predisposed to be fat or thin.

"That was the first time I got excited about the microbiome," laughs Dr Ang, who became the first PhD student to join Prof Turnbaugh's lab.

"The fact that our microbiomes are highly modifiable by our diet and lifestyle presents exciting opportunities for interventions at improving human health."

## Innovating for Singapore

As Singapore continues to position itself as a global research hub for science, scholarships offered by A\*STAR help nurture the next generation of innovative researchers.

Shortly before her postdoctoral work on the infant gut microbiome made the journal's cover, Dr Ang's PhD thesis on how a ketogenic diet affects gut microbiome was also published in Cell.

These, and other notable accomplishments, landed her the A\*STAR Young Achiever Award, with \$500,000 in funding for microbiome research.

Today, she is busy parsing a large skin microbiome dataset to identify new approaches in the treatment of skin disorders connected to eczema and hair loss.

"The combination of intellectual challenge and real-world impact is the most rewarding aspect of my job," she says.

"I'm excited to help further our understanding of the microbiome. By learning more about it, I hope to find new ways to keep us healthy and prevent disease."

I am excited to help further our understanding of the microbiome. By learning more about it, I hope to find new ways to keep us healthy and prevent disease.

DR ANG QI YAN  
Recipient of the A\*STAR National Science Scholarship (BS-PhD)

Scan for more on the A\*STAR National Science Scholarship (BS-PhD).

PHOTO: SPH MEDIA





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Such a broad exposure gave me a full range of experiences that helped me grow as a journalist and as a person.

MS GWEN LEE GENG WEI  
Recipient of the SPH Media Journalism Scholarship

PHOTO: SPH MEDIA

# When every day is an adventure

From livestream reporting to covering a murder, this SPH Media Journalism scholar is poised to pivot at a moment's notice

By Audrey Ang

As a rookie journalist at Lianhe Zaobao in 2021, Ms Gwen Lee Geng Wei vividly remembers one of her first livestreaming assignments to cover the

launch of the BTS Meal at McDonald's.

The journalism scholar had no prior experience doing a livestream and was only given 24 hours to prepare for it.

The one-person-show assignment required her to speak to the camera for about 40 minutes and interview newsmakers on scene while keeping her mobile phone steady on a selfie stick.

"It was a struggle at that time, but after rising to the occasion, I found myself coming back for more. It's almost like I was addicted to the challenge," she says.

Ms Lee has always had an affinity for the Chinese language. After completing her A levels at Dunman High School, students like her in the school's Chinese Language Elective Programme were given the opportunity to do an internship with a Chinese media publication.

"It did not feel like a job to me at the time," she says, of her five-month stint at Lianhe Wanbao. "I was happy to experience different things every day, something a 19-year-old would not have been able to do otherwise."

Drawn to the varied assignments and exposure she got, Ms Lee applied for the SPH Media Journalism Scholarship in 2016 and pursued political science at the National University of Singapore.

### A thrill at every turn

Ms Lee has been rotated across different beats, including crime, politics, healthcare and education. Being a journalist has allowed her to hone a myriad of skills – she has learnt how to present news for print and online platforms, craft social media posts and work on video stories.

"Such a broad exposure gave me, a starry-eyed newbie, a full range of experiences that helped me grow as a journalist and as a person," says Ms Lee.

No two days are the same for her. She can go from a murder scene in Geylang, to interviewing an aspiring Chinese dancer, to coming face-to-face with a dead body in a rental flat at Bukit Merah.

"I felt like I was on a different adventure every day. I saw more of Singapore than an average Singaporean did," she says.

Since becoming a journalist and interviewing people from different backgrounds, Ms Lee has gained new perspectives on life which has changed her for the better.

When she is covering crime cases or politics, she makes it a point to not only keep a balanced view, but also be a voice for those who have fallen through the cracks.

"Every Singaporean has his or her own story and struggle, and it is important to consider what they are facing. A journalist's job is to listen to both sides and to never judge," she notes.

Her advice to aspiring journalists? Take up an internship first to see if the job is for you. Do it for at least three to four months and rotate between publications to get a good idea of what the job entails.

"You will realise that life is not always black and white; it is a million shades of grey. Sometimes it is not about being right or wrong, or about what is true or false, but it depends on the circumstances. Being a journalist lets you see the grey," says Ms Lee.



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# Safeguarding the NATION'S DIGITAL FUTURE

These three Smart Nation scholars are using AI to protect lives and combatting cyber threats with their tech skills

**A**s artificial intelligence (AI) and digitalisation continue to transform industries and influence day-to-day activities, Singapore is proactively nurturing individuals to safeguard the nation's digital landscape.

The Smart Nation Scholarship – jointly offered by the Cyber Security Agency of Singapore (CSA), Government Technology Agency (GovTech) and Infocomm Media Development Authority (IMDA) – opens doors for young talents to carve out a career in tech and contribute to a technologically advanced future.

Recipients can specialise in cybersecurity, application design, development and deployment, sensors and the Internet of Things, data science and AI, geospatial data, infocomm technology infrastructure, or technology policy and governance.

Here, three Smart Nation scholars share how they are using their skills to bolster the nation's digital future.



PHOTO: SPH MEDIA

**“**  
**When developers say their AI systems are robust, transparent and fair, they can tap on AI Verify to prove it.**

**MR CHU WEI HAO**  
**RESEARCH ENGINEER, IMDA**  
Recipient of the Smart Nation Scholarship

**”**

## Pushing digital frontiers to boost security

In the fast-evolving world of AI today, as more companies in Singapore use AI in their products and services, fostering the public's trust in AI technologies becomes a priority. There is a need to develop the sciences and grow AI governance testing and evaluation through an open-source framework.

This is why IMDA launched AI Verify, the world's first AI testing framework and software toolkit to promote transparency. It allows AI system owners to verify the claimed performance of their AI systems against a set of internationally-recognised AI ethics principles through standardised tests.

Smart Nation scholar Chu Wei Hao was part of the team who helped develop the free open-source software toolkit.

“When developers claim their AI

systems are robust, transparent and fair, they can tap on AI Verify to prove it,” explained the 27-year-old research engineer at IMDA.

Even though he has only been working at IMDA since March 2023, Mr Chu has already been involved in several pioneering projects and research on cutting-edge technologies.

He is currently with its BizTech Group's Trust Tech Engineering team, tasked with developing technologies to help guarantee privacy, secure trust and provide confidence to people and firms to transact digitally.

He has also been studying opportunities in blockchain – public digital ledgers that record transactions across multiple computers so they cannot be altered.

Mr Chu joined IMDA as a Smart

Nation scholar after graduating from the Singapore Management University-Carnegie Mellon University Masters Fast-Track Programme with a degree in Information Systems Management.

Under the agency's effort to broaden staff's exposure, besides his involvement in the research on emerging technologies, he also reaches out to small and medium-sized enterprises to assist them in their digitalisation journey, as part of the Digital Industry Singapore office.

Just four months into his IMDA career, he is proud to be one of the Smart Nation scholars.

“It has provided me with ample training opportunities and exposure to tech events, enabling me to keep learning and growing even after graduating,” he says.



PHOTO: SPH MEDIA

**“**  
**I experiment with cutting-edge models and techniques within the computer vision to hone AI capabilities and provide technical support to government agencies.**

**MS GOH JIA YI**  
**ASSOCIATE AI ENGINEER, GOVTECH**  
Recipient of the Smart Nation Scholarship

**”**

## A smart vision for the future

How do you improve safety in construction sites? A smart video system that acts like an “eye” to monitor activities and flag safety violations 24 hours a day could be the answer. When it senses workers standing too close to moving excavators, for example, it will send alerts or warning signals to the site's safety and health officers.

Ms Goh Jia Yi, 24, is part of a team to help create such a solution in collaboration with other government agencies. As an AI engineer in GovTech's Data Science and Artificial Intelligence Division's video analytics team, she focuses on computer vision algorithms to come up with ways to enable computers to analyse videos and images.

“I experiment with cutting-edge models and techniques within the computer vision to hone AI capabilities and provide technical support to other government agencies on their projects,” she explains.

She has been involved in developing GovTech's Video Analytics System, a platform that lets government agencies use video analytics and machine learning without any coding. They have used it to produce services such as Balefire and Mobius. The former is a smoking detection tool, while the latter analyses pedestrians,

cyclists and traffic using video analytics.

She learnt about the Smart Nation Scholarship and applied for it while studying business analytics at the National University of Singapore.

“I've been interested in tech since young. I still remember the excitement I felt when I came across the scholarship. I knew that with it, I could contribute meaningfully to Singapore while furthering my passion for technology.”

Although she intended to be a data analyst, an internship at GovTech's Smart City Technology Division in 2020 as part of being a scholar introduced her to computer vision. “I helped to build an exercise detection and rep counting application, which made me realise that I want to be a hands-on developer.”

She also saw other GovTech staff put together a self-service temperature scanner to fight the spread of Covid-19.

These instances convinced her that she chose the right scholarship.

She says: “I already admired many of GovTech's products, including SingPass, but my internship experience showed me how agile the organisation is, how quickly it can respond to crises and build things. I'm constantly learning on the job, which is something that truly gives me joy.”

## Protecting our cyberspace

Upon receiving information of a cyber attack on a Singapore firm, Ms Ong Jing Yin and her colleagues swung into action. Their work involved identifying and isolating the compromised machines and working with the firm on measures to prevent potential re-entry into the company's network.

The intervention, which stopped the attackers from further infecting other assets and exfiltrating sensitive data, is part of Ms Ong's day-to-day work. The 26-year-old is a malware analyst for CSA's National Cyber Incident Response Centre.

“It's like being a digital detective. Just as detectives solve mysteries, I investigate computer systems and solve digital puzzles,” she says.

Her work goes beyond helping organisations to repel cyber attacks.

“The ability to communicate complex technical concepts in a clear and accessible manner is essential, especially when explaining the concerns arising from the cyber attack to key stakeholders of the affected company during an incident response. We must be able to convey the situation clearly that we can work together effectively to mitigate the threat.”

Ms Ong became passionate about cybersecurity after taking part in a cyber tournament while studying computer science at the National University of Singapore. During the event, a team compromised her team's computers and used them to infect the entire hall. While the incident did not cause any “real” harm outside of the tournament, it opened her eyes to the impact cyber attacks can have in the real world.

“This incident sparked my interest in cybersecurity and helped to shape my decision to pursue a career in this field.

“When I came across the Smart Nation Scholarship, CSA instantly stood out to me because of its focus on



PHOTO: SPH MEDIA

**“**  
**Just as detectives solve mysteries, I investigate computer systems and solve digital puzzles.**

**MS ONG JING YIN**  
**SYSTEM ENGINEER, CSA**  
Recipient of the Smart Nation Scholarship

**”**

safeguarding our cyberspace. The need for cybersecurity as an integral part of our digitalisation efforts resonated with me and I saw this scholarship as an opportunity to be part of something meaningful and impactful,” Ms Ong says.



Scan for more on the Smart Nation Scholarship.

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