NUS ChemCONNECTions
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We welcome contributions from our alumni. If you are interested in writing for the newsletter, please contact the Editor at chmcws@nus.edu.sg.

NUS National University of Singapore

Editorial Notes

It has been a lovely year of 2022. In this issue, we cover Class of 2014 Tng Le Hua's perseverance in making her dream come true; a glimpse of Kent Ridge Alumni Family Day 2022 which finally brought back the in-person activities on track after two years; Chemistry welfare walk and dinner; Chemistry Homecoming for Class of 2022 organised by the Chemical Sciences Society; Learning Journey of Nanyang Girls' High School students to NUS Chemistry; ChemNUS Demo IG get-together session; and the announcement celebrating Associate Professor Lu Jiong as one of the NUS Young Researcher Award 2022 recipients. This is the last quarter of 2022, we wish everyone happy holidays ahead and keep in touch :-)

NUS Young Researcher Award 2022

Congratulations to Associate Professor Lu Jiong for taking home the NUS Young Research Award 2022. The Award Ceremony was held in Shangri-La Singapore on the 29th of July 2022. Among Prof Lu's most prominent works are the large-scale synthesis of atomically precise single-atom catalysts and the advancement of scalable fabrication for high-quality two-dimensional conducting and superconducting inks. His discoveries are key in industrial applications related to sustainable chemical and energy transformations.



From left: Assoc Prof Lu Jiong; NUS President Prof Tan Eng Chye; Mr Donn Koh; Prof Chua Tat Seng; NUS Chairman Mr Hsieh Fu Hua; Prof Liu Bin; Assoc Prof Heng Cheng Suang; NUS Senior Deputy President and Provost Prof Ho Teck Hua; Assoc Prof John Ho; and Assoc Prof Jessica Pan. Image source: National University of Singapore

Class of 2014 Tng Le Hua — A Career Dream Come True

Le Hua is always fascinated by science from an early age, particularly on how science is used to explain the course of events. Thus, choosing Chemistry as a major during her university enrolment was an obvious choice as she believes that Chemistry is the central science that provides insight to all other science subjects. Le Hua graduated with a B.Sc. in Chemistry in 2014 and worked as a Microbiologist soon after her graduation. She realised that her experience as a Chemistry undergraduate has not only effectively influenced and shaped the way she reacted to challenges, but also helped her in developing skills required to analyse, interpret, and discuss concepts which served to be essential for on-the-job learning, especially in her first job as a microbiologist.

While working as a microbiologist, Le Hua kept looking out for opportunities to enhance her knowledge and exposure in forensic science. It was started when she took NUS GEK1542 Forensic Science module in her Year 2 and discovered the possibility of supporting and protecting public health and safety with her knowledge in science. She was thrilled when she heard that NUS would launch the M.Sc. in Forensic Science programme. Without hesitation, she enrolled in the programme in 2020 and graduated in one and a half years.

She is currently working as a Senior Crime Scene Specialist at the Home Team Science and Technology Agency (HTX) of Singapore. Her role is to conduct analysis and documentation of scenes of crime and thoroughly examine and recover physical evidence. To Le Hua, this is her career dream coming true, which is never too late as she has been preparing for this day all along.

Le Hua is always looking forward to building greater expertise and grow as much as she can in her career. Quoting Carl Sagan, "*We are the sum of the influence and impact that we have, in our lives, on others.*" She believes that success is measured by the lives we positively touch and there's no better way to do so than to give back to our own community. Her experience resonates with her motto in life that she often tells others, "*Don't be afraid to give your dream a try and don't stop trying. Every small step counts and the only failure is not trying.*"





Top: Le Hua (right) with fellow MSc graduates and professors (Photo credit: NUS Forensic Science) "The greatest takeaway from school is always the people."

Left: Le Hua (right) with two of her classmates during one of the practical sessions in MSc Forensic Science (Photo credit: NUS Forensic Science) "This is when I had a taste of what it would be like being a crime scene specialist."

"… chance favors only the prepared mind."—Ms Tng Le Hua (Chemistry '14) demonstrated a perfect example of this quote by French microbiologist and chemist Louis Pasteur—not only in the field of observation but also in career building.

Kent Ridge Alumni Family Day 2022

Kent Ridge Alumni Family Day (KRAFD) is the NUS annual homecoming event for alumni to stay in-touch with the NUS community. This year, the event was held on the 13th of August and adopted the hybrid format by involving a mix of online webinar and in-person activities. The Office of Alumni Relations chose the "Welcome Back!" theme to mark the return of in-person engagement and activities which were held back for 2 years due to the COVID-19 pandemic. Together with the Science Demo Lab, the Department shared the "Chemistry Demo" booth and engaged the visitors with "Droplets Dancing" and "PDMS Lens" experiments. The "Droplets Dancing" experiment demonstrated how the "Marangoni Effect" (mass transfer along an interface between two phases due to a gradient of the surface tension) works when propylene glycol drops on the water, while the PDMS (Polydimethylsiloxane) Lens showed visitors how to make a PDMS lens on the spot and turn their smartphone into microscope. Ms Linda Oei, Dr Lim Kim Yong, Ms Ng Mei Ting as well as graduate students Xu Duo and Gomathi Mahadevan, represented the Department of Chemistry with the above demonstrations in this joyous family event with NUS alumni.






Chemistry Welfare Walk and Dinner 2022

The Department organised the Chemistry welfare walk to Garden By the Bay and the Chemistry Family Dinner at Peppermint at ParkRoyal on the 29th of July 2022. The Dinner was not only an occasion for staff to get together after the easing of Safe Management Measures (SMM) but also to recognise the resilience of our staff during the long pandemic period and to appreciate senior colleagues who have retired. It was very warm evening full of camaraderie over a delicious dinner.



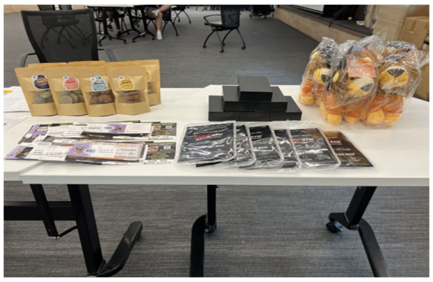




Chemistry Homecoming for Class of 2022

The Chemical Sciences Society (CSS) organised the Chemistry Homecoming event for Class of 2022 on the 1st and 2nd of July 2022 with the theme "Starry Night". During the event, the graduates not only celebrated their milestone with friends and lecturers by taking pictures at "Starry Night" photo booth designed by CSS but also collected special graduation gifts prepared by the Department and our sponsors.

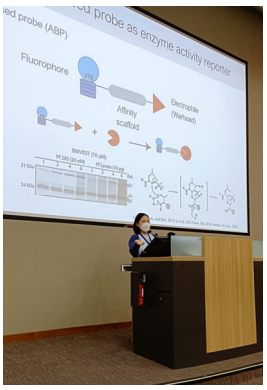




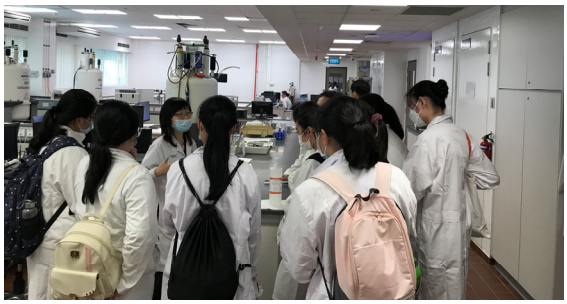
Nanyang Girls' High School Visit

On the 6th of September 2022, a total of 31 Secondary 3 advanced chemistry students and teacher from Nanyang Girls' High School visited the Department of Chemistry. Ms Thyagarajan welcomed the participants and introduced them to the undergraduate programme and various experiential learning programmes available for the undergraduates in the Department. Assistant Professor Li Hao shared how her research work in chemical microbiology and in studying the enzymes of the human microbiome has contributed to the human life. Their learning journey was concluded with the Nanyang girls visiting the Mass Spectroscopy, the Nuclear Magnetic Resonance, and the Electron Microscopy Laboratories where the girls were introduced to the fundamentals and the working principles of those essential instruments.









ChemNUS Demo IG Get Together

The ChemNUS Demo Interest Group (ChemNUS Demo IG) mentors and mentees had a gathering session on the 21st of September 2022. In this session, mentors and mentees got to know each other in person and shared past projects and new ideas for the demo lab. New members had the chance to familiarise with facilities in the lab for ChemNUS Demo IG. Dr Ng Yee Hong demonstrated the concept of physical chemistry through the 'drinking bird' mechanism.





