ABOUT

First started in 2003, the Pineapple Issue is an annual publication highlighting the events and achievements of the society and members of our FST community.

NUS Food Science & Technology

Established in 1999, the mission of the FST programme is to nurture future leaders in the food industry and to enhance the well-being of the FST community, so as to produce global leaders in education and research in the field of food science and technology and nutrition.
Ice Cream Making and Baking 2018
January 2018 | Nathalie Ng

ICMB is a yearly event held during the Winter break and it is highly anticipated by both students and alumni of NUS as well as members of the public. ICMB 2018 was aimed to teach our participants the joy of baking, and that baking is something everyone can do. We wanted the event to be fun, creative and of course, tasty. On the menu this year was Pretzels, Cake Pops and Milo Tofu Ice Cream.

We held three sessions in total and response to the event was good. Participants started off with mixing and kneading the dough for the pretzels, this was the most time consuming as facilitators explained the kneading process and taught the proper technique to knead the dough such that the desired consistency could be achieved. Once that was done, the dough was left to proof and participants moved on to bake their chocolate fudge cake for the cake pops. They then proceeded to start on the ice cream. Many were shocked as there were only 4 ingredients, tofu, sugar, milk and Milo powder, and that making ice cream could be so easy. While churning the ice cream, facilitators also explained the mechanics behind the ice cream machine in our Food Lab as well as some facts about ice cream.

Many had given feedback that the ice cream actually tasted like the soft serve from Mr. Bean! Participants expressed their creativity when it came to the pretzels and cake pops. We saw various shapes and designs of the pretzels and cake pops. They also experimented with different favours – mixing sweet and salty, using Milo Powder and adding chocolate. It was truly heart-warming to see participants enjoying themselves as they made their own creations, even making new friends at the same time.
Not only did the participants enjoy themselves thoroughly, but so did the facilitators. Amelia Chew, a Year 1 FST student mentioned, “It had been an enriching and fruitful experience being a facilitator as I got to interact with participants from different backgrounds and learn new things from their baking experiences.” Yu Jing Ying, a Year 1 FST student as well, added, “Being a facilitator in ICMB had provided me with the opportunities to interact with people from various age groups and not just students of our age. That allowed me to step out of my comfort zone to interact with parents, seniors, and many more. Other than that, we were able to try out various recipes and learnt how to improvise in order to come up with a recipe with the most desirable flavour and texture.”

ICMB 2018 was a success and we hope that students and alumni of NUS, as well as members of the public will continue to support us as we try to continue to organise more of such events.
FST Sports Day '17
October 2017 | Sandy Bong

Just last semester, the FST Society had hosted its first ever Sports Day at the Indoor and Outdoor Courts located in NUS. FST students across all levels sweated it out during friendly competitions of captain's ball and/or badminton. Participants showed true sportsmanship and thoroughly enjoyed themselves. This was followed by dinner to enable the students to continue bonding after a tiring day. The FST Society hopes to organize similar events at least once a semester to provide a platform for students to destress amidst their busy schedules. So do keep a lookout for our next Sports Day which will be held this semester!

Welfare Pack Distribution
November 2017 | Tiffany Tan

Life of an FST student – lab reports, packed timetables n sleepless nights! What better way to beat the stress than a bag full of goodies?

The exam welfare pack distribution lasted two days. Participants received both food and stationery. These included old time favourites, Famous Amos cookies and banana milk. BIC highlighters of two colour choices, yellow and green, were given out as well. This year, students were given the opportunity to purchase stickers designed by our very own FST student body. With its witty captions and cute pictures, the stickers were a hit!

The success of the event was evident by the sizeable turnout of over a hundred FST students. We hope everyone will achieve their dream CAP and have a smooth sailing journey! Bon Voyage!
FST Orientation Camp
2017
August 2017 | Vanessa Chia

Food Science and Technology Welcome Orientation Camp is an annual camp for newly matriculated FST freshmen to orientate them to the Faculty and life on campus.

FSTWOC 2017: Camp Descipher was held from 20th July to 22nd July 2017 and the theme for 2017 was detective. The camp comprised of programmes that were diversified and highly customized, from indoor to outdoors, from talks to even gameshows held by the FST Camp Committee 2017. Furthermore, it was the first-ever camp that did collaboration with another camp, in our case, we partnered with Physics Camp. On the 3rd day (which is the last day of the camp), the FST freshmen met the Physics freshmen and played a variety of exciting games that were meant to bring the two different groups of people together, including Deja Vuu, World Survival and Captain Ball.

Through the various camp activities, the freshmen got acquainted with their batch mates, seniors, physics students, and FST professors.

Message from FST Camp Director 2017:

When I first took on the role of the FST Camp Director, I didn’t know what to expect. All I knew was that I like camps, and I like bringing people together. Many people would think that organizing a camp is a simple task as it really boils down to the programme outline, and that was what I thought at the beginning. However, there were so many things that I have to deal with, so many situations that I have to foresee. I remembered praying very hard the week before the camp, for good favorable weather so that I would not need to use the “wet weather plans”.

To make the FST camp even more fun and memorable for the freshmen, I sought advice to my friends that have attended or organized other camps. I even helped out other camps as
Game Station ICs to take note of things that I might want to add or remove from my camp and practice how to talk enthusiastically. To understand how my sub-committee members would feel as a sub-committee member, I also joined my hall camp as Logistic sub-committee member. Even though the journey was bumpy and tough, it was truly fruitful and enjoyable as I have made a lot of genuine friends and I have seen the brightest smiles on the freshmen’s faces. It was all worth it.

The camp would not have been a success without my vice camp director – Celyne, 20 FST Camp Committee Members, 8 OGLs and 8 Seniors as well as my beloved Staff Advisors, Ms Lee Chooi Lan and Dr Liu Mei Hui that spared effort, time and money on this camp. From the bottom of my heart, I am very thankful for these people above that made this camp possible. Thank you!

Valentine’s Day 2017 - A Collaborative Effort
February 2017 | Nguyen Thuy Linh

Embracing being an academic society in the Faculty of Science, the FST society participated in the Valentine’s Day 2016 event organized by Science Club together with the Academic Disciplines Co-ordinating Committee. The event was an opportunity for the FST society to work together with clubs and societies in the Faculty of Science to contribute to campus vibrancy and provide welfare for all Science students. Throughout the whole process of organizing the event, we had the chance to make new friends and exchange ideas with other clubs and societies in Science which was very meaningful.

Valentine’s Day 2017 was also special for the FST society because it was our first collaboration effort with NUSSU for a CIP event called Thanks!NUS which was happening around campus to show appreciation for workers such as security guards, cleaners, canteen staff. In tune with Thanks!NUS, we took Valentine’s Day 2017 as an opportunity to sell brownies to raise money that was spent on providing welfare for workers in the Faculty of Science. We also made use of our booth as a platform to promote and collect appreciation notes for the workers from the students.

Overall, Valentine’s Day 2017 was a fun and meaningful experience for all of us. The event was small, but it set up a tone for the FST society to be a society that is more engaged in community involvement.
NUS-University of Tokyo Joint Symposium on Food Microbiology and Fermentation

NUS-FST together with the University of Tokyo-Tokyo Institute of Technology jointly organized a half-day symposium for the first time on “Food Microbiology and Fermentation”. The symposium was held on 15th July 2017 at S8-level 3, Executive Class Room, Chemistry Department. Three experts from University of Tokyo and 2 from NUS-FST shared their research findings. The class room was full with audience from research students as well as industries personnel. It was an honour to have the presence of Dr Asahi Matsuyama with his team, the Chief Director of R&D in Kikkoman Corporation, the world largest soya source producer. The initiative fostered a good platform for research updates and exchange of cutting edge findings. It was a short event but with a fruitful outcome. The event closed with a good networking session and a nice buffet lunch which fully sponsored by Kikkoman (R&D) Singapore.

2017 Joint International Symposium on Food Science and Technology

2017 Joint International Symposium was an expansion of the annual joint symposium between Tokyo University of Marine Science and Technology (TUMSAT) and NUS. The TUMSAT-NUS symposium was initiated in 2008, and the event has been carried out annually and organised in each country in alternate year. In 2015, the invitation was extended to Hokkaido University and this year, 3 other universities participated. There were Thailand Kasetsart University, University Putra Malaysia and China, Zhejiang Gongshang University. Hence, a total of 6 Universities including NUS participated in this year Joint Symposium. The event was held at NUS, LT 24 on 7 to 8 Dec 2017.

The 1.5 day programme was packed with 19 oral sessions and 11 poster presentations. A wide range of topics on Food Science and Technology was covered such as: Dielectric relaxation spectroscopy as a tool for prediction of recrystallization rate of ice crystals in
frozen foods by Dr. Hagiwara. Effect of sugars and amino acids as precursors on aroma compounds in heat-treated matured coconut water by Dr. Wannee. Development of starch-LLDPE composite films with incorporated green tea extract into active food packaging by Dr. Harnkarnsujarit. Dr Yang shared on Effects of k-carrageenan and potassium chloride on the structure and rheological properties of fish gelatin. And Dr Kim presented on Effect of Egg Consumption on the Absorption of Fat Soluble Nutrients, etc.

3 best oral speakers and 3 best poster presenters were awarded at the end to inspire the young researchers on their passion in research. It was a good platform for research exchange and findings updates. About 90 attendees from various universities, local institutions and industries attended. It was a fruitful event, and we are looking forward for more participation from other universities in 2019 symposium which will be held in Singapore.

ASEAN Food Quiz Bowl
Lim Si En Victoria
From the 15th to 17th of November, the biannual ASEAN Food Conference was held in Ho Chi Minh City, Viet Nam. One of the highlights of the conference was the student Food Quiz Bowl competition, where undergraduate students from various ASEAN nations battled it out to emerge victorious.

The quiz involved questions from diverse food science disciplines, including food safety, nutrition and food processing, and required students to be well versed in various areas.

The quiz comprised of two rounds, each consisting 20 questions. Only the top three teams from the preliminary round could proceed to the final stage. After a grueling battle, the Singapore team emerged tied second with Philippines, with Malaysia leading by a small margin. Despite lagging behind in the first round, the Singapore team was not discouraged and fought hard, ultimately clinching the championship.

The Singapore team would like to express their utmost gratitude to the faculty staff for their guidance and support, without which the team would not have had the foundational knowledge. Special mention goes to Dr Yang Hongshun, who aided immensely in the preparation for the competition, including both administrative and academic matters. We are grateful to the Vietnamese students for their hospitality during the conference, and are thankful for the opportunity to have represented and won for Singapore.
Participants were mainly from the Asia-Pacific region – Australia, China, Hong Kong, India, Malaysia, South Korea, Taiwan, Thailand. Plenary talks were classified under the different arms of chemistry - Medicinal, Engineering, Agricultural and Food, Environmental, Natural Products, Organic, Polymer, Inorganic Chemistry. Under the Agricultural and Food chemistry section, the topics covered included Flavour, Toxicokinetics, Molecular mechanism and Cognitive impact of certain agricultural compounds.

Under the support from Prof Zhou Weibiao and Dr Liu Mei Hui, I joined the student oral competition. There were 10 students competing and were namely from Thailand, China, Malaysia, India and Singapore. I gave an oral presentation on "Potential Benefits of an Anthocyanin Fortified Cake" and was the overall winner for the ACS Division of Agricultural and Food Chemistry graduate student oral presentation competition.

The conference was an eye opener and allowed me to see the relevance of the inter linkage between different chemistry domains. I also had a chance to see the 2016 nobel laureate, Sir J. Fraser Stoddart in person and got to hear about his journey in his research career.

After the conference was over, there were cultural tours held by the conference organizer. I went on the Korean folk culture experience tour, and got a glimpse of the life in Jeju more than 100 years ago. We got to try out corn grinding, clothes drying by knocking and old folk games.
As we were touring around Jurong Fishery Port, I had a “calling” and thought to myself why not just take a leap of faith and try in this industry because I found it quite amusing. After the midnight tour, I seek my Professor, Dr Liu Mei Hui, for the point of contact for Hai Sia. After weeks of contacting, I finally had an interview with the Hai Sia Team. The only concern of this internship was the time frame as I was having my summer programme in University of British Columbia, which makes me only available for one month of interview. I pushed for the internship even though that means I do have a proper break before school start because I will start my internship right after my summer school. It was one of the better decision I had made so far in my university life.

Hai Sia Seafood will always be part of me because there was so many things I have learned from the various people in Hai Sia Team, be it knowledge about fishes, about how the fish industry or just some personal skills that I can improve on. I would not say having an internship here is easy, the management team pushes me beyond my comfort zone but I am happy they did because my aim for every internship is to learn and gain as much skills and experience before I head out to the real working society.

As the new processing plant was new and only started operation earlier this year, I was working with my Quality Assurance Manager to improve the flow in the processing plant. I was also part of improving the cold chain management of the company.
In improving this two areas in the company, I had to have hands on experience; being part of the processing team and going out on delivery with the regular delivery team. This made my experience in Hai Sia a very complete experience.

On my last night in Hai Sia, I actually did a small presentation on Food Safety for the students from Republic Polytechnic that major in Marine Science and Aquaculture. It was memorable because I felt that I was passing on some of my knowledge to my fellow younger peers that will one day join me in the working industry.

Night shift were the most challenging for me. I do not consider myself as a night person therefore staying awake throughout the night was physically and mentally challenging. Night shift were from either 11pm to 7am or 2am to 10am. I remembered my first night shift when I struggled opening my eyes at about 8am. After a few more night shift, I was slight more adapted to the night life as I forced myself to sleep after dinner at around 7pm to 1.5 hours before my night shift.

People might think the biggest challenge in fish industry is the fishy odor. However, honestly the odor during the night is the smell of the ocean rather than the usual wet market where most people might assume.

Another major challenge for me during my time in Hai Sia was differentiating the different fishes in Jurong Fishery Port Central Market. There was so many different species of fishes and I need to slowly learn the different names, both English and Chinese because the traders in the market are mostly Chinese-speaking locals. In addition, I have to learn some fishes name in Japanese which I spend my free time revising.

I had to juggle between internship and training in NUS twice a week which is very tiring because I might have just finished night shift on that very day itself.

Even though my internship was just a mere one month, but I felt that I have expended my knowledge so much more. During the one month, textbooks were not textbooks anymore, everything that I learned in the classroom came to live. I experience many first-hand things that I might not get the opportunity again. But the most important takeaway is that I left Hai Sia knowing that I can pick a fresh fish for my family.
NOC Israel
Lim Jie Ai | Year 4, Food Science and Technology | NOC Israel Batch 12

This NOC experience has impacted my life in a good way, like seeds that hopefully can grow into something amazing.

One of the companies was The Kitchen FoodTech Hub, Israel's only foodtech incubator, owned by the Strauss-Group (Israel's largest food products manufacturer) and part of the Israeli Innovation Authority's incubator program. From The Kitchen, I learnt the ropes of building a food tech ecosystem into a vibrant community of entrepreneurs, investors, industry people, and academics.

My main role at The Kitchen was to conduct due diligence on high-potential early stage ideas as part of the multi-gate screening process before selection for the two-year incubator program. I enjoyed the role as I obtained insight into many extremely innovative and cutting-edge research in the food tech sector, as I assessed their technical feasibility, competitive differentiation from existing technologies, regulatory clearance, possible applications, and marketing strategies. One of the highlights at The Kitchen was as project manager for ShukTech FoodTech, a food tech carnival led by The Kitchen, in the Mahane Yehuda Market in Jerusalem. (Shuk means market in Hebrew.) The aim of “ShukTech FoodTech” was to strengthen the foodtech community and create an ecosystem for networking. We transformed the night market into a colourful place to host foodtech lectures, investor sessions, startup pitches, and industry showcase booths.

The second company I worked with was Flying SpArk, a visionary startup seeking to
disrupt the food ingredients market by offering high quality protein powders from the fruit fly larvae, as a healthier and sustainable alternative to animal protein. It aims to solve the challenge of feeding 9 billion people by 2040 in a sustainable manner. My work at Flying SpArk ranged from business development to new product development to entomology R&D. I learned important aspects of how a startup functions from working closely with the CEO and CTO. My job scope included doing market research, applying startup competitions, making fly larvae brownies to showcase at TV interviews, and conducting feed and yield optimization experiments.

Play
One of the beauties of Israel lies its natural beauty, geographic diversity, and rich cultural heritage. There is something special about the relaxing beauty of sunset at the Tel Aviv beach. A two-hours drive south of Tel Aviv would bring one to the beautiful Masada fortress overlooking the tranquil Dead Sea. My roommates and I enjoyed a camping trip at Masada, as well as a stunning two-day-one-night hike in the Judean desert, guided by Arab Bedouins. Besides places of interest, understanding the rich Israeli culture was of importance to me. I visited Yad Vashem, sat in one Parliamentary session at the Knesset, visited synagogues, and went on tours to understand the political and historical significance behind places of interest.

People
The best part about Israel was the people I met. On one hand, the Israelis are brilliant, enterprising, open-minded, with a can-do, chutzpah attitude. On the other, they are open, warmhearted, and community-minded people. Our batch got lucky to be able to experience many important Israeli holidays during our stint there. These ranged from Purim, involving mass dress-up parties; Israeli Independence Day barbecue parties; Tu BiShvat, or new year of the trees, and the Pesach or Passover feast of Biblical significance.

The numerous events happening in Tel Aviv created vibrant living, ranging from startup conferences, to Meetup groups, to language exchange sessions, to other social and political events.
Takeaways

Immersing in the Israeli culture, I witnessed the spirit of innovation and community around me - unfettered, spontaneous, resilient, non-judgmental - something I hope to see in Singapore. Being a food scientist and having experienced the Israeli food tech scene, my dream is to witness Singapore transformed into a food tech innovation hub of the world. In conclusion,

I would like to end with this quote: “The mind, once stretched by a new idea, never regains its original dimensions. And that has been my NOC experience.

FST Fundraising for Chem 88th Anniversary

Chemistry Department received a big birthday present from an alumna on dinner sponsorship for the celebration of the Chemistry 88th Anniversary at Fullerton Hotel on 27 Oct 2017. For a good cause to benefit students, the Department took this opportunity to make it fundraising event to increase the funds available for the provision of more scholarships and awards.

Being a Programme under the Chemistry Department, FST was given up to 5 tables for fundraising, and the fund collected by FST are dedicated to FST awards only. A total of $11,692 was donated by FST alumni and staff. This sum is now kept under the Chemistry Alumni Endowment Fund which is eligible for government matching. It was a very good opportunity in view of the depleting of FST alumni fund. The fund will be used to top up our PJB book prize and FST Alumni bursary award from $500 to $1000 in the coming AY.

For the long term and sustainability of awards to benefit more FST students, the alumni committee is planning of setting up an FST Alumni Endowment Fund, which is also eligible for government matching. The spending will be on the annual interest yield and the awards to students will be perpetual.

With the upcoming FST 20th anniversary, the committee will have a series of year-long fund-raising events. The aim is to raise fund through activities rather than individual giving. Hence, stay tuned, we will need volunteers to help in the activities and your participation in our FST 20th anniversary celebration in 2019 will be crucial for the success.
NUS Service Day 2017

Every year, the NUS family come together during the NUS Day of Service to give back to the community through volunteering for selected beneficiaries. This year, NUS FST Alumni participated in World First Aid Day 2017 which was organised by Red Cross Singapore.

The event was held on the 9th of September at Taman Jurong CC. The NUS FST Alumni group, together with few others part of the NUS family, were helping the organizers with the packing of emergency packs (E-packs) which would be given out to the beneficiaries. It was a pleasant surprise when we could get an exclusive photo taking with Minister Desmond Lee and CEO of Singapore Red Cross. Not only were the adults, the children brought by some of the participants also equally excited to prepare the E-packs for the beneficiaries.

During the event, the participants also learnt the proper ways of applying the first aid kit. In the end, the team had the chance to interact with the beneficiary and gave out the E-packs to them. All in all, it was a time well spent because the beneficiary could receive both E-packs and the love from the NUS family.

Student Achievement Awards

SIFST Student Symposium Award (Postgraduate Category)

Audrey Koh Hui Si

FST Programme Best Postgraduate Award

Yu Peigen  Kim Minjeong
Nestle Scholarship 2016
Josephine Phang Shu Fen

Sabrina Chen Peiqi

Firmenich Prize and Abbot Nutrition Prize 2017
Charlie Lim Guan Yi

PJ Barlow Book Prize
Choo Wei Xian Desmond

Givaudan Food Prize 2017
Mak Ying Yuan

KH Roberts Prize 2017
Andrea Koo Wanqi

SIFST Best student award cum Postgraduate Scholarship 2017
Guo Junwei Christopher

Lijen Industries Development Medal 2017
Chan Mei Zhi Alcine

SIFST Student Symposium Award (Undergraduate category) 2017
Tan Si Jia
A Trip to IAFP 2017 Conference in Tampa, Florida, USA: an account (& a rant)

Ivan Zwe

The year of 2017 has been a remarkable year for me with the highlight being the privilege to attend and present my work at the International Association for Food Protection (IAFP) 2017 Conference in Tampa, Florida, USA with the blessing and the support of the NUS FST Programme.

The next highlight must be the Odyssey-worthy and delay-plagued 36-hour plane ride from Singapore all the way to Tampa, Florida through Beijing and New York which was a result of our epic quest for the cheapest flight route possible with disregard to travel time just to fit in the budget allowed (a stray comment from a colleague about how Ph.D. students have more time than money came to mind). Upon landing in Tampa, a sore disappointment was the fact that the weather there was exactly the same as Singapore! To add salt to injury, the sun sets at 8.45 PM and rises at 5 AM. That was just... great.

However, one does not simply stay pissed at the State of Florida for long since the host of the famous Disney Land, Orlando and a great number of iconic beaches like those featured in “CSI Miami” just mesmerizes one with Her beauty in no time. I mean just look at the view I was treated to from the balcony of the Tampa Convention Center where the IAFP conference was held: a stupidly dashing sight to behold.

View from Tampa Convention Center

But life plays cruel tricks on us mortals and somehow, I managed to enter and leave the State of Florida without ever setting my foot on a grain of sand that she had to offer on her shores. Before you start questioning my life choices, in my defence, the jet lag was really bad. I was crashing in my bed at 6 PM when it was most happening, woke up at 3 AM when the world was asleep and essentially talked to myself until the conference started at 8 AM – rinse and repeat for 6 days. By the time I was feeling normal enough to no longer sleep at unholy hours and possibly explore, the conference was over and I was leaving Florida.

The mother-of-all highlights though must go to the part where my lab mate and I met again with our Ph.D. supervisor Dr Yuk Hyun-Gyun all the way in the USA after about 6 months of having conversations exclusively over the email. All of a sudden, the former monthly dread which was the lab meeting became a welcomed event when one had to fly halfway across the world to have one.
Yours truly (left). Ms Pang Xinyi (right)
with Dr Yuk Hyun-Gyun

The amount of academic knowledge (and dare I say ego) in the conference was “too damn high” to say the least. I was given the opportunity like no other to network and exchange ideas with the best in the field of food safety and absorb the latest developments in the area of my specialization. It felt almost as if I did about a year’s worth of learning in a single week which immensely accelerated the progress of churning out data for my Ph.D. thesis. All-in-all, the entire trip from the preps and the arduous flight to the reunion with the professor and the treasure trove of concentrated knowledge I received over the week will be the vivid memories I took away from this trip, including the occasionally colorful mishaps and “what the hell” moments along the way.

Hi FST Students! 新年快! Happy Chinese New Year! Our annual FST CNY Reunion Dinner is once again back this year! There will be steamy hot Steamboat, delicious catered Buffet and yummy Yu Sheng! So don't wait and grab your FST mates or your family members to enjoy this CNY Reunion dinner together! It will be a wonderful time of fun and catching up with classmates, senior/juniors and with your beloved pros! Date, price and venue is as stated in the poster. Details such as payment and registration will be confirmed at a later date via email to all participants.
Do not hesitate and sign up now at www.tinyurl.com/FSTCNY2018! Please do sign up by 18th Feb 2018 2359 (Sunday). Hope to see you there!
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