CONGRATULATIONS to our first batch of Food Science and Technology Programme graduates.

All our students have found a job but in different areas. Below are their most recent employment records:

Ting Ting is now working in International Flavors & Fragrances (Asia Pacific) Pte. Ltd. as a contract staff in the application laboratory, Li Lin is now working in Gold Roast Food Industry Pte Ltd. as a Food Technologist, Koi Ling is working in McDonald’s Restaurants Pte Ltd. as a Trainee Manager, Hwee Hoon is working in Tan Teow Seng Food Industry as a Quality Controler, Kian Heng is working in Marine Fisheries Research Department, Irene Hoe is working in Viva Lift science as a nutritionist, both Puai Kuen and Ngiaik Hong are working as a management trainee in Eu Yan Sang, Lay Keat is working as a food technologist in ALS Technichem (S) Pte Ltd, Sing Ying is working as a temporary staff in market research, Lai Kuen, is working in Veterinary & Public Health Laboratory as a senior Agri-food & Veterinary Officer, Kuo Sin is working as a consultant in Eben Consultants Pte Ltd., Kit is working as a food technologist in Singapore Food Industries, Eric is working as a chemist in Lam Thong Co., Nancy is currently in National Institute of Education as a trainee teacher, last but not the least, Silk Yieng is working as a food technologist in Chop Hup Chong.

Our Forthcoming Events....

The Second International Workshop on Food Science and Technology

Following on their first successful workshop on 26 & 27 February 2002, the Food Science and Technology Programme of NUS and Food Science Australia will hold their second joint international workshop on food science and technology in late September this year. The theme of the second workshop is "Food Safety and New Processing Technologies". Featuring internationally distinguished speakers, the workshop program will address the forever important issues of food safety as well as the emerging food processing technologies that provide exciting opportunities and challenges.

This workshop will provide an excellent opportunity for food industry executives and leaders, scientists and technologists to gain a good insight into the latest international developments in food safety regulations and trends, and emerging food processing technologies such as high pressuring processing, pulsed electric field processing and ultrasound processing.

For more information, please contact the Chairman of the Organizing Committee, Associate Professor Zhou Weibiao. Tel: 6874 3501, email: chmzwb@nus.edu.sg
Our New Programme....

Since you studied on the FST Programme, there have been some major changes! In order to meet the new requirements of the University and to achieve savings in resources, it has been necessary to restructure the Programme. The main changes have been:

- addition of some life science modules in the early years;
- a reduction of food science modules in the first two years;
- the move of the Industrial Attachment from Semester 1 to Semester 2 at level 3;
- the introduction of some elective business modules.

What other changes are afoot? Currently, discussions are taking place with the Technological University of Munich (Germany) about the setting up of a M.Sc. taught programme in the area of Beverage Science and Technology - the focus will be on beer, soft drinks, liquid dairy products and soy milk. The aim is to have a cohort of 20-40 students comprising 50% from Asia and 50% from Europe.

Will these developments mean extra staff and laboratory facilities - watch this space!

Has it improved the Programme? That remains to be seen! Did your time in the FST Programme equip you for what you are doing? We would like to hear your comments.

Our FST Programme is now 3.5 years old and has become a well-established activity in the Faculty of Science. Application rates are maintained and hopefully all students are still enjoying their time with the University. We hope also that you can be our ambassadors for the future and encourage new students to opt for the Programme. Also, if you have found jobs or move on in your career, please let us know.

Will this be the end of changes in the Programme – most unlikely and we are always taking advice from our Food Industry Liaison Panel and also have all of you to provide us feedback.

Our aim is to have an academically sound and relevant programme that equips the new graduates to face the challenges and solve the problems of the modern day food industry.

Our New Arrivals....

A GC-MS, Shimadzu QP5000 has arrived just in time for this year Honours students.

The system offers easy operation and with quadrupole electron mass spectrometer, it enables high performance analysis in quantitation and identification of food compounds, pesticide residues, volatile components etc.

A new HPLC from Waters has also been commissioned and ready for use. The system caters both isocratic and gradient configuration for analytical and semi preparative purifications. The PDA 2996 detector offers a high sensitivity, precision and reliability in food analysis, coupled with millennium software, it provides powerful chromatography data management and library matching for compound confirmation.
Our Stories....

Irene's story....

First and foremost, I would like to thank God for the opportunity to be one of the alumni. My appreciation and uncountable thanks to all my lecturers; Professor Barlow, Professor Perera, Dr. Leong and Professor Zhou Weibiao for their efforts & dedication in guiding me throughout my university life. With the knowledge acquired in my university life, I have become more independent especially in my first job after graduation. I miss my friends and lecturers who are in university.

Since graduation, I was wondering what types of jobs will be suitable for me. I thought, 'with just a degree without honours, what can I do?' The most is to become a food technologist. My ambition was always to be a nutritionist or dietitian because I like to give consultation or advice to others. Perhaps some of you may think that I am the quiet type (how to give advice or consultation) but if you know me well, I can be very talkative. I thought this would be just a dream that will never come true, as I have not done my master degree in nutrition yet.

Out of my expectation, the Lord really blessed me with a job at Viva Life Science. Viva Life Science has employed me as a nutrition advisor since July 2002. The job scope is similar to a nutritionist. I enjoy working in this area. Everyday, I give consultation to patients especially advising them what supplements to take for certain kinds of diseases or health conditions. At least 2 times in a month, I'll be giving presentation on various diseases such as endometriosis, liver diseases etc to the customers or members of Viva Life Science. Once a month my senior nutritionist and I will conduct a workshop for them as well. Two of the workshops that I have conducted were basic nutrition and women’s health.

Working life and study life is totally different. In my working life, I have to encounter different type of people especially during consultation time. Some are very arrogant and claim to be professors of such and such university. It was quite a struggle for me especially when my senior nutritionist was on maternity leave. I have to answer all queries and doubts from the public. However, through this trying time, I have learned a lot by doing intensive research. I am glad that I am still learning new things everyday.

To those who are working, don't ever give up or quit when mishaps happen to you. Endurance & humility are very important as we are just fresh graduates who intent to gain more experience. For those who are still studying especially in honours year, I'm so proud of you as you have achieve your target to get into honours. All the best to you.

Intent to know about my personal life? Hehehee, I'm not married yet. I'm still a single and still available. I can be contacted at irenchoe@yahoo.com
Kuo Sin’s Story...

May 2002... after finishing the Pest Control paper, I still couldn’t believe that my U life ended just like that. What have I done in the past 3 years? What have I gained? What have I lost? However, all the answers were not as important as this - 'What should I do after graduation?'

Every Saturday is a new hope. Flipping through the thick cum compact ‘Recruitment’, my eyes were never opened so big before. One week gone, still no response. Then wait for another week. Day by day, week by week, more and more applied, more and more sink into the sea. Nevertheless, when called for interview, means there is a brand new hope.

In mid August, I found a job. The position is defined as professional consultant in Eben Consultants Pte. Ltd. As a Management Consultant, my job scope is mainly on HACCP. I have to tour around Singapore to meet clients. Consult them on food hygiene practice. After 2 months, I was given a chance to handle ISO projects and now, I am doing marketing as well.

Lay Keat’s Story....

It has been 3 months since I joined the very first company after graduation. I am working in a commercial lab dealing with food testing and analysis. Working life differs so much from school life—though I went through the similar experience during IA.

Basically, each person in my lab is in charge of carrying out certain tests. For me, my current territory includes sample preparation and extraction such as fat, cholesterol extraction, etc. Though the task itself is routine, the variety of food to be analyzed is so complicated that makes the job never the same everyday. Also of course, there is always stress and fun that makes time passing extremely fast.

Yet, I miss school life soooooo MUCH because it is so interesting (though hard..hehe). Ya, think I am stuck at what I am now. It is time for me to improve myself after 3 months of doing nothing!
The China-ASEAN Workshop and the Project Management Committee (PMC) Meeting on Technology Cooperation of Functional Food were held in Beijing, P.R. China, on 24-27 September 2002. ASEAN countries are represented by scientists from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. I represented Singapore in the workshop and meeting. During the workshop, a report of functional foods in Singapore was presented and among the issues addressed in the report includes the following:

(i) The status of development and production of functional foods;
(ii) Legislation and regulation on the production and distribution of functional food;
(iii) Future of functional food; and
(iv) Current research work on functional food.

During the meeting, both parties agreed to cooperate on activities related to the development functional foods and the timeframe of cooperation is proposed to be between 2003 and 2005. These activities include (i) policy studies, (ii) human resource development (HRD), and (iii) research and development (R&D).

For policy studies, officials and scientists from the ASEAN region will visit China for to discuss about management and regulations, market conditions and Chinese health-care food culture in relation to functional foods. Officials and scientists will also visit producing enterprises and look into quality control system of Chinese functional food. A reciprocal visit to selected ASEAN countries by officials, functional food experts from China will also be conducted. Local industries who are interested to participate in the program are encouraged to contact Dr. Leong Lai Peng at the National University of Singapore for further information.

For human resource development, to develop the human resources in functional food, China and ASEAN countries will exchange experts or technicians to the partner universities or research institutes to obtain advanced study or participate in cooperative research, and gradually elevate the research level of each other. A second workshop on functional food will be held in Indonesia to monitor the progress of research, development and human resources training in the countries involved.

The countries also agreed to cooperate in research and development in the following area:

(i) Antioxidants (Lead country: China; ASEAN contact: Singapore)
(ii) Proteins and peptides (Lead country: China; ASEAN contact: Philippines)
(iii) Oligosaccharides and polysaccharides (Lead country: China, ASEAN contact: Thailand)

Most of the above activities will be funded by the China-ASEAN cooperation fund.
Editor’s Say
January 2003 Issue 1

WELCOME to the first edition of “The Pineapple”, YOUR Alumni magazine. We sincerely hope that you, our first graduates, are enjoying life and new jobs where appropriate.

We all live in difficult economic times and perhaps some of our expectations have not been fully met, but this is only the first step in a lifetime of achievements waiting to be fulfilled.

Enough of doom and gloom – let’s look on the brighter side! You are the first FST graduates from NUS, IN THE WORLD and have the opportunity to make your mark by applying your knowledge and skills in whatever task you are undertaking.

We hope that when you reflect back on your time as an undergraduate at NUS, it is with great pleasure and pride and that the good times far outweigh the not so good. You have been the pioneers for the FST Programme and have helped to influence its growth and development. FST now has over 100 undergraduates and over one dozen post-graduates. There are changes in the structure and content of the Programme, the research activities are well established and the food industry is regularly turning to FST for help and advice.

We hope that this magazine helps you keep in touch and we take this opportunity of wishing you all the best in your endeavours whatever and whenever they may be.

Dr PHILIP J BARLOW

My USA Trip....

A/P Conrad Perera spent the month of June 2002 at the USDA Citrus and Sub-tropical Products Laboratory in Winter Haven, Florida working on surface decontamination of fruits for minimal processing, using a novel steam generator known as the BioSteam machine on loan from BioSteam Technologies Inc., in St. Antonio, Texas. This was part of a research project undertaken by NUS in collaboration with the USDA and BioSteam Technologies Inc., to study the effects of steam on surface microorganisms in fruits. Star fruit (carambola) and pineapple were chosen as test materials. Preliminary results showed a high effectiveness of BioSteam process in the reduction of aerobic and anaerobic bacteria as well as yeast and mould counts. The quality of slices made after heat treatment were assessed by measurement of respiration rates (CO₂ & O₂ production) and ethylene production by GC, colour measurements by Minolta spectrophotometer and microbiological analysis. The optimum temperature-time exposure of star fruit and pineapple in BioSteam were 60°C for 30-40 seconds and 90°C for 60 seconds respectively. These figures will also depend on the degree of surface contamination found in these fruits by agricultural practices and post-harvest handling practices.

Surface decontamination of fresh fruits and vegetables is essential for safety and integrity of minimally processed food products, which have found a high level of acceptance all over the world. One of the research interests of A/P Perera is in minimal processing and he has been collaborating in this area with Dr Liz Baldwin, the Director of the Citrus & Sub-tropical Products Laboratory of the USDA and colleagues from Hortresearch & University of Auckland in New Zealand for a number of years. Dr Baldwin paid a reciprocal visit to FST laboratories at NUS in early December 2002.

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