

## MESSAGE FROM HOD

*Dear Staff & Students,*

*In this first issue of the Biochemistry Buzz, I hope that we can step out boldly into the future of the New Biology, that includes looking at the old reductionist biology through the new lenses of integrative approaches. Biochemistry is the key to success in these endeavours, and we plan to take the lead. We have a journal called Biomolecular Frontiers which needs your support to help it grow beyond the boundaries of this Department. We have conferences waiting to be organized to stimulate cross disciplinary discussions. We have meetings to attend that will facilitate the translational research with concrete ideas of how we can be involved in a deeply participatory manner.*

*We have each other for support and for discourse. Let's use this opportunity to create a new **Buzz** in Biochemistry!*

## OUR HEARTIEST CONGRATULATIONS!!

### Academic Staff

- On 1 February 2007, Associate Professor Tan Tin Wee assumed duty as the new Deputy Head. The Department expresses its gratitude and appreciation to Professor Sit Kim Ping for her hard work and dedication during her term as Deputy Head.
- In April 2007, Associate Professor Too Heng Phon was awarded both the 2005/2006 Faculty Teaching Excellence Award as well as the Annual Teaching Excellence Award.

### Administrative & Professional Staff

- With effect from 1 January 2007, Ms Aniza A.Wahid was redesignated as Senior Administrative Officer.
- Ms Peh Hui Pin was promoted to Senior Administrative Officer. Ms Peh is employed under OLS grant and is in charge of all Neurobiology matters.

### Students

- A/P Chang Chan Fong's Science Research Programme (SRP) students – Shin Bing and Lee Suat Ying won the Silver Medal for the project title: *Analysis of Molecular Forms of CD38/ADP-Ribosyl Cyclase from Rat Liver* while the Bronze medal was awarded to Chua Ee Cheong from Anglo Chinese Junior College in the recent Singapore Science and Engineering Fair 2007.
- Dr Tang Bor Luen's honours student, Christelle Chua En Lin has won the Outstanding Undergraduate Researcher (OUR) prize. She will be awarded a certificate and cheque of \$2,000.

### VOICE Awards

- The Office Staff won two VOICE Outstanding Team awards for the month of April 2007 for their suggestions titled "Department Quarterly E-Newsletter" and "Department Handbook".

## WELCOME TO OUR NEW STAFF

### Laboratory Officers

- Miss Chong Chai Chien  
– Dr Steve Cheung's lab



- Ms Loh Sook Ling, Evelyn – Dr Sashi's lab



- Mr Yang Yifan – Dr Yeong Foong May's lab



- Ms Isabelle Joo – Dr Gan Yunn Hwen's lab



- Ms Yu Dejie – Prof Barry Halliwell's lab



### Research Assistants

- Miss Aina Hoi – Prof Barry Halliwell's lab



- Mr Wang Yu – A/P Caroline Lee's lab



- Ms Chen Yanan – Dr Tang Bor Luen's lab



- Ms Liu Jie – Dr Deng Lih Wen's lab



- Ms Wang Xiaoning – Dr Deng Lih Wen's lab



- Mr Li Yang – Dr Theresa Tan's lab



- Miss I Fon Bambang – Dr Jeffrey Armstrong's lab



- Miss Beatrice Chia – Dr Theresa Tan's lab



- Mr Zhang Dongwei – A/P Caroline Lee's lab



- Ms Zhang Wenxia – Prof Barry Halliwell's lab



- Miss Fatima Farzana – Dr Yeong Foong May's lab



### Research Fellows

- Dr Con Stylianou  
– Dr Markus Wenk's lab



- Dr Leroy S Pakkiri – Dr  
Markus Wenk's lab

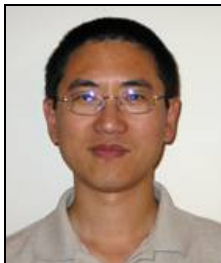


### Adjunct Staff

- Dr Neil Clarke, Genome Institute of Singapore – Adjunct Professor



- Dr Han Weiping, Biomedical Science Institute / A\*Star – Adjunct Associate Professor



- Dr Frederic Andre Bard, Institute of Molecular & Cell Biology – Adjunct Assistant Professor

*\*Photo was not available at circulation time.*

## EVENTS

- On 29 January 2007, the Staff and Student Lounge at MD7, #03-07 was officially opened by HOD. Many staff and students attended this event and enjoyed the buffet lunch as well as relaxing in the new Lounge. All Department staff and students are welcomed to use the Lounge during office hours. Here are some photos taken.



- On 2 March 2007, the Staff Welfare Committee (headed by Associate Professor Too Heng Phon and Ms Lim Ting Ting) organized a bowling competition at Marina South Superbowl. It was an enjoyable and exciting event as teams from different labs compete against each other for the prizes. The results were as follows: -

### Team awarded the 1<sup>st</sup> Prize

- A/P Li Qiu Tian
- A/P Chang Chang Fong
- Bian Hao Sheng
- Aniza A.Wahid

### Team awarded the 2<sup>nd</sup> Prize

- Dr Markus Wenk
- Dr Sashi Kesavapany
- Robin Chan
- Chua Gek Huey
- Joyce Goh

### Team awarded the 3<sup>rd</sup> Prize

- A/P Tan Chee Hong
- Lan Jie
- Yau Yin Hoe
- John Wan

*Best Male Bowler* – Dr Sashi Kesavapany

*Best Female Bowler* – Aniza A.Wahid

*Best Bowling Style* – Lily Ang

### Teams awarded the Consolation Prizes

- |                       |                     |                  |
|-----------------------|---------------------|------------------|
| 1. Dr Shui Guanhou    | 1. Dr Andrew Jenner | 1. Lim Ting Ting |
| 2. Dr Aaron Fernandis | 2. Dr Ian Gruber    | 2. Irwani        |
| 3. Dr Con Stylianou   | 3. Dr Jetty Lee     | 3. Fatihah       |
| 4. Dr Leroy Pakkiri   | 4. Dr Tang Soon Yew | 4. Lily Ang      |
| 5. Ignasius Jappar    | 5. Dr Helen Isaac   |                  |



- On 21 March 2007, the Staff Welfare Committee organized a Lunch cum Lucky Draw at Sakura International buffet restaurant at Clementi Woods. Everyone enjoyed the scrumptious buffet spread and interacted with fellow colleagues and students. All who signed up and attended the event was awarded with a token of appreciation but the much envied top 3 prizes for the lucky draw went to :-  
**1<sup>st</sup> Prize (17 inch LCD TV) – Associate Professor Too Heng Phon**  
**2<sup>nd</sup> Prize (Digital Camera) – Lim Ting Ting**  
**3rd Prize (Mini Stereo System) – Li Yang**



## VISITS

- The following faculty candidates were invited by HOD and have visited the Department.
  - Dr Thilo Hagen, University of Nottingham, United Kingdom.
  - Dr Tapan Mukherjee, University of Utah, USA.
  - Dr Martin Margittai, University of Southern California, USA.
  - Dr San Pun, Novartis Institutes of Biomedical Research, Switzerland.
  - Professor Fu Xin-Yuan, Indiana University School of Medicine, USA.

- On 25 April 2007, the Department was honoured to host a distinguished delegation from the Weizmann Institute of Science, Israel. They visited our Life Sciences lab and interacted with our academic staff over lunch.

## GRANTS AWARDED

Our staff have been awarded the grants as stated below:

| Month    | Staff                     | Amount awarded | Project Title  |
|----------|---------------------------|----------------|--|
| January  | Professor Barry Halliwell | S\$721,000     | Mechanisms of vascular protection by haem oxygenase  |
|          | A/P Caroline Lee          | S\$808,000     | Hepatitis B Virus X Protein (HBx) and Hepatocellular Carcinogenesis (HCC) – Characterization HBx in HCC Patients and Identification of Downstream Targets of HBx |
|          | Dr Theresa Tan May Chin   | S\$550,000     | MicroRNAs and Cell Proliferation   |
|          | Dr Tang Bor Luen          | S\$334,000     | Cellular Functions of Nogo – Roles in Membrane Dynamics, Neuroprotection and Neuroregeneration   |
| February | A/P Caroline Lee          | \$570,000      | Genetic analyses of the architecture of polymorphisms at chromosome 7q21/22 locus and the SXR gene locus in different ethnic populations. (Awarded by MOE)       |
|          | A/P Tan Tin Wee           | USD 70,897     | Dengue Epitope Vaccine, Tetravalent And MHC II- Targeted: Computation Identification Of Dengue Virus T-Cell Epitopes (Awarded by NIH)                            |

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| Month | Staff                             | Amount awarded                     | Project Title  |
|-------|-----------------------------------|------------------------------------|--|
| March | A/P Chang<br>Chan Fong            | \$100,000<br>(by NMRC)             | Identification, Cloning and Functional Expression of Mitochondrial ADP-Ribosyl Cyclase From Rat Brain  |
|       | A/P Marie<br>Veronique<br>Clement | \$853,000<br>(by NMRC)             | A study to decipher survival pathways involved in the resistance of cancer cells to apoptotic death induced by the inhibition of PI3K and to develop a computer-aided model of tumor progression |
|       | Dr Cheung<br>Nam Sang             | \$49,500<br>(by<br>MINDEF-<br>NUS) | Identifying New and Novel Therapeutic Targets for Treating Mild and Moderate Brain Injury  |
|       | Dr Sashi<br>Kesavapany            | \$118,563<br>(by ARF)              | Investigating p25/Cdk5 mediated effects on gene expression   |
| May   | Dr Deng Lih<br>Wen                | \$250,000                          | Investigation of the molecular mechanism of MLL5 in response to UV irradiation   |
|       | Dr Chua Kim<br>Lee                | \$674,991                          | Small Non-coding Regulatory RNAs Of Burkholderia pseudomallei  |

## TIER 1 PUBLICATIONS

### January

**Tang BL** and Liou YC. Novel modulators of amyloid beta precursor processing. *J. Neurochem.* 100: 314-323.

Pareek TK, Keller J, **Kesavapany S**, Agarwal N, Kuner R, Pant HC, Iadarola MJ, Brady RO and Kulkarni AB. Cyclin-dependent kinase 5 modulates nociceptive signaling through direct phosphorylation of transient receptor potential vanilloid 1. *Proc Natl Acad Sci U S A.* 2006 Dec 28. [Epub ahead of print]

**Halliwell B.** Dietary polyphenols: Good, bad, or indifferent for your health? *Cardiovasc Res.* 2007 Jan 15; 73(2):341-347. Epub 2006 Oct 13.

Tong JC, **Tan TW** and Ranganathan S. In silico grouping of peptide/HLA class I complexes using structural interaction characteristics. *Bioinformatics.* 2007-Jan 15; 23(2):177-183. Epub 2006 Nov 7.



## **February**

**Jenner A**, Ren M, Rajendran R, Ning P, Tan BK-H, Watt F and **Halliwell B**. Zinc supplementation inhibits lipid peroxidation and the development of atherosclerosis in rabbits fed a high cholesterol diet. *Free Rad. Biol. Med.* 42: 559–566.

## **March**

Shao K, Hou Q, Go ML, Duan W, Cheung NS, Feng SS, Wong KP, Yoram A, Zhang W, Huang Z and **Li QT**. Sulfatide-tenascin interaction mediates binding to the extracellular matrix and endocytic uptake of liposomes in glioma cells. *Cell Mol Life Sci.* 2007 Feb. 64(4): 506-615.

Ye Z and **Gan YH**. Flagellin contamination of recombinant heat shock protein 70 is responsible for its activity on T cells. *J Biol Chem.* 2007 Feb 16; 282(7):4479-4484. Epub 2006 Dec 18.

## **April**

Koh CH, Peng ZF, Ou K, Melendez A, Manikandan J, Qi RZ and **Cheung NS**. Neuronal apoptosis mediated by inhibition of intracellular cholesterol transport: Microarray and proteomics analyses in cultured murine cortical neurons. *J Cell Physiol.* 2007 Apr; 211(1): 63-87.

Whiteman M, Chu SH, Siau JL, Rose P, Sabapathy K, Schantz JT, **Cheung NS**, Spencer JP and **Armstrong JS**. The pro-inflammatory oxidant hypochlorous acid induces Bax-dependent mitochondrial permeabilisation and cell death through AIF-/EndoG-dependent pathways. *Cell Signal.* 2007 Apr; 19(4):705-714. Epub 2006 Nov 14.

**Halliwell B** and Gutteridge J MC. Free Radicals in Biology and Medicine. Fourth Edition. Oxford University Press.

Lu GD, Shen H-M, Ong CN and **Chung MC M**. Anticancer effects of aloe-emodin on HepG2 cells: Cellular and proteomic studies. *Proteomics Clin. Appl.* 2007; 1: 410–419.

Wang Z, Wang J, Tantoso E, Wang B, Tai Amy YP, Ooi London L.P.J, Chong Samuel S and **Lee Caroline GL**. Signatures of Recent Positive Selection at the ATP-Binding Cassette (ABC) Drug Transporter Superfamily Gene Loci. *Human Molecular Genetics* (in Press).

Zhang D and **Armstrong J**. Bax and the mitochondrial permeability transition cooperate in the release of cytochrome c during endoplasmic reticulum-stress-induced apoptosis. *Cell Death Differ.* 2007 Apr; 14(4): 703-715.

Lim S and **Clement MV**. Phosphorylation of the survival kinase Akt by superoxide is dependent on an ascorbate-reversible oxidation of PTEN. *Free Radic Biol Med.* 2007 Apr 15; 42(8):1178-1192. Epub 2007 Jan 12.

**Fernandis AZ** and **Wenk MR**. Membrane lipids as signaling molecules. *Curr Opin Lipidol.* 2007 Apr; 18(2):121-128.

**May**


Cao Y, Adhikari S, **Clement MV**, Wallig M and Bhatia M. Induction of Apoptosis by Crambene Protects Mice against Acute Pancreatitis via Anti-Inflammatory Pathways. *Am J Pathol.* 2007 May; 170(5):1521-1534.

**BIOFRONTIERS – OUR FLAGSHIP E-JOURNAL**

Staff are encouraged to support this exciting initiative.

Please visit the following url for details : <http://epress.nus.edu.sg/biomol/>

**UPCOMING EVENTS**



Biochemistry is celebrating its **80<sup>th</sup> Anniversary** this year. We are planning a dinner as part of the celebrations. Details will be made known in due course.

*Biochemistry Buzz*