December 2018 || Issue#30

Biochemistry BUZZ

NUS National University of Singapore

Department of Biochemistry
Yong Loo Lin School of Medicine

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HOD's Message

Dear All,

It's the season for reflection. In fact, reflection is a good habit but we don't practise it frequently and deep enough in these times of rapid developments in the world, Asia-Pacific including Singapore as well as at NUS.

The collection of events found in this Biochemistry Buzz will help refresh our memories. I hope they will stimulate the end-of the year reflection process. I have started my own which is guided by a single question: "How to be most effective in core areas of strengths". I am asking myself this question from the perspectives of the Head of Department, Program Director and Principal Investigator. It's a good exercise in efforts of 'alignment' and 'leverage'. We need to be good at both of these in order to realize the strengths which we bring into our partnerships.

Many thanks once again for all your dedication, hard work and contributions to the Department over throughout 2018. I wish you and your families Happy Holidays and all the best for the New Year 2019.

All the best,
Markus

Staff Promotion

Dr Chen Ee Sin

on his promotion to **Associate Professor** with tenure effective 1 January 2019

Staff Awards

Professor Barry Halliwell

for being named in the ***global Highly Cited Researchers 2018*** list, released by Clarivate Analytics on 27 November 2018.

Professor Jeyakumar Henry

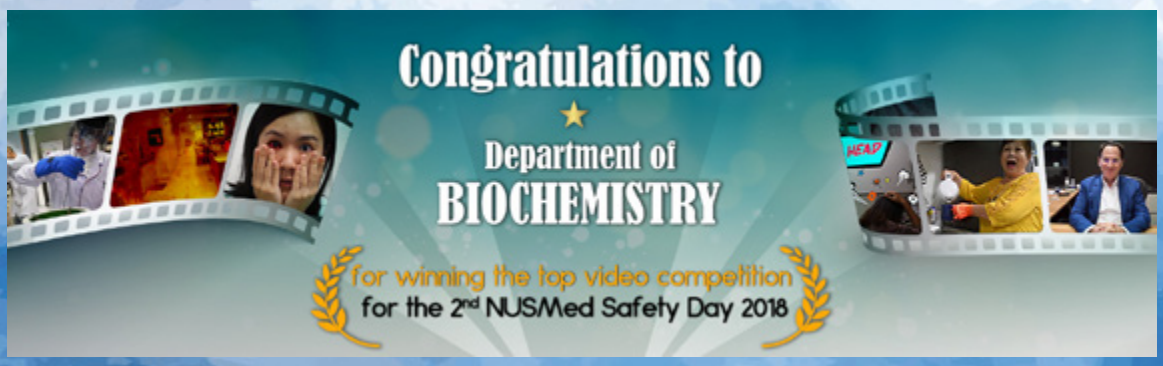
awarded the Grand Prix:
5th Niigata International Food Award, Japan

This award is given to scientist who have made global contribution to food and nutrition.

A/P Too Heng-Phon

is one of the NUS recipients for National Day Awards - **The Long Service Medal**

Department Award



Click the links to see the videos;

1. *Lab Safety is everyone's responsibility.*
2. *Office Safety - Breathe safety, live safely.*

Grant Awards

A/P Caroline Lee

$230,750

Novel Pharmacogenomic Panel for Predicting Response to Anti-Cholesterol Drug Statin - NUS ILO Technology Acceleration Programme (TAP) Grant

A/P Matthew Chang

$1,498,000

Singapore Consortium for Synthetic Biology

A/P Yew Wen Shan

USD 50,000

Synthetic Remediation Biology:
Chromium Upcycling
for Environmental Sustainability (AOARD)

Dr Chen Ee Sin

$680,540

Genome-wide Regulation of histone H3Y41p to Safeguard Genomic Integrity - ARC (MOE) Meeting 2, 2018

Grant Awards

Dr Nguyen Nam Long

$825,228

The roles of S1P transporter Mfsd2b in vascular and inflammatory disease - ARC (MOE) Meeting 2, 2018 (Feb 18 call)

$1,250,000

Mechanisms of sphingosine-1-phosphate signaling in vascular health and disease (NMRC OFIRG)

Dr Ling Hua

$1,784,280

Synthetic Biology Research & Development Programme Call 2

Development of Platform Proprietary National Strains

Student Awards

Student Travel Fellowship Award – July 2018 Call

Each graduate student was awarded **$2,500** to participate in a conference. All recipients have submitted a report on their experiences upon their return.

Geraldine Tu Xue En
Supervisor:
A/P Too Heng-Phon

2 – 4 December 2018
Cedars-Sinai, Los Angeles, CA, USA

Conference Title:
Cell Symposia : Translation of Stem Cells to the Clinic: Challenges and Opportunities

Wong Wei Jie Garrett
Supervisor:
A/P Yew Wen Shan

6 – 9 January 2019
New Orleans, LA, USA

Conference Title:
26th Enzyme Mechanism Conference

Chia Ren Hui Derrick
Supervisor:
A/P Tang Bor Luen

10 - 14 February 2019
Fairmont Banff Springs, Banff, Alberta, Canada

Conference Title:
Keystone Symposia on Molecular and Cellular Biology : Obesity and Adipose Tissue Biology

Lim Lee Jin
Supervisor:
A/P Caroline Lee

24 - 28 February 2019
Whistler Conference Centre, Whistler, British Columbia, Canada

Conference Title:
Keystone Symposia on Molecular and Cellular Biology: Long Noncoding RNAs: From Molecular Mechanism to Functional Genetics (X2)

Student Conferment

Jastrinjan Kaur, PhD
Supervisor:
Professor Hong Wanjin
Conferred Date:
31-05-2018

Lisa Borghini, PhD
Supervisor:
Professor Markus Wenk
Conferred Date:
31-05-2018

Kunde Ramamoorthy Govindarajan, PhD
Supervisor:
A/P Tan Tin Wee
Conferred Date:
31-05-2018

Kwok Wee Chiew, PhD
Supervisor:
A/P Matthew Wook Chang
Conferred Date:
30-06-2018

Liew Wen Chiy, PhD
Supervisor:
A/P Prabha Sampath
Conferred Date:
30-06-2018

Tabaglio Tommaso, PhD
Supervisor:
A/P Ernesto Guccione
Conferred Date:
30-06-2018

Rashmi Rajasabhai, PhD
Supervisor:
A/P Yew Wen Shan
Conferred Date:
30-06-2018

Chua Shu Xian Serene, MSc
Supervisor:
A/P Marie-Veronique Clement
Conferred Date:
30-06-2018

Wisna Novera, MSc
Supervisor:
A/P Deng Lih Wen
Conferred Date:
31-07-2018

Tan Yi Han, MSc
Supervisor:
A/P Gan Yunn Hwen
Conferred Date:
31-07-2018

Pham Hoang Long, PhD
Supervisor:
A/P Matthew Wook Chang
Conferred Date:
31-08-2018

New Student

Loh Yuen Nee Yvonne
Degree Programme: PhD

Main Supervisor: **A/P Yew Wen Shan**

Co-Supervisor(s): A/P Ivan Tham Weng Keong
A/P Poh Chueh Loo

New Staff

Eng Wee Ling Gracie

Research Associate

RO:
Dr Cheong Jit Kong
Date Joined:
16-07-2018

Shohei Kitano

Research Fellow

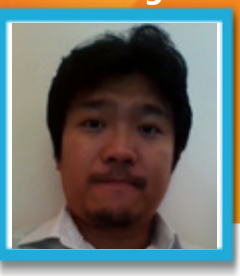
RO:
A/P Matthew Chang
Date Joined:
18-07-2018

Choo Li Shi Kimberly

Research Assistant

RO:
A/P Yew Wen Shan
Date Joined:
23-07-2018

Daniel Teh Boon Loong



Senior Research Fellow

RO:
Professor Brian Kennedy
Date Joined:
01-08-2018

Kwok Wee Chiew

Research Fellow

RO:
A/P Matthew Chang
Date Joined:
06-08-2018

Liow Lu Ting

Research Assistant

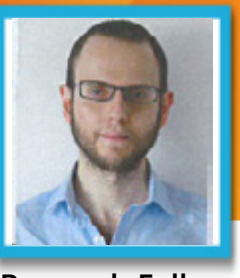
RO:
A/P Yew Wen Shan
Date Joined:
06-08-2018

Nguyen Quoc Toan

Research Fellow

RO:
Dr Nguyen Nam Long
Date Joined:
13-08-2018

Salvador Gomez Carretero



Research Fellow

RO:
A/P Yew Wen Shan
Date Joined:
03-09-2018

Yong Qian Ying Cheryl

Research Assistant

RO:
A/P Tang Bor Luen
Date Joined:
05-09-2018

Ku Wei Kay, Joanne

Research Assistant

RO:
A/P Gan Yunn Hwen
Date Joined:
06-09-2018

Tan Shu Ting

Research Assistant

RO:
Dr Nguyen Nam Long
Date Joined:
17-09-2018

Heng Yu Chyuan

Research Assistant

RO:
A/P Matthew Chang
Date Joined:
26-09-2018

Pazhanichamy Kalailingam

Research Fellow

RO:
Dr Nguyen Nam Long
Date Joined:
20-11-2018

Regina Goh Jia Mei

Research Assistant

RO:
Dr Jiang Jianming
Date Joined:
20-11-2018

Yeoh Jing Wui

Research Fellow

RO:
A/P Yew Wen Shan
Date Joined:
01-11-2018

Chandrasekaran Ramya

Research Assistant

RO:
A/P Yeong Foong May
Date Joined:
10-12-2018

Gee Kim Lai, Kim

Assistant Manager

RO:
Ms Aniza Binte Abdul Wahid
Date Joined:
08-10-2018

Aniza Binte Abdul Wahid

Assistant Director

RO:
A/P Matthew Chang
Date Joined:
01-10-2018

Student Travel Fellowship

Daniel Lim Rui Xiang
Graduate Study: PhD
Name of Supervisor:
A/P Gan Yunn Hwen

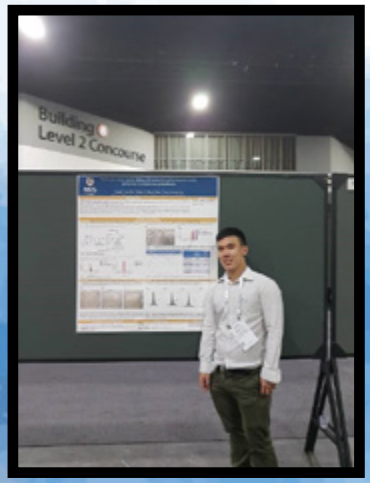
ASM Microbe 2018, 7-11 June 2018,
Atlanta,
Georgia, USA

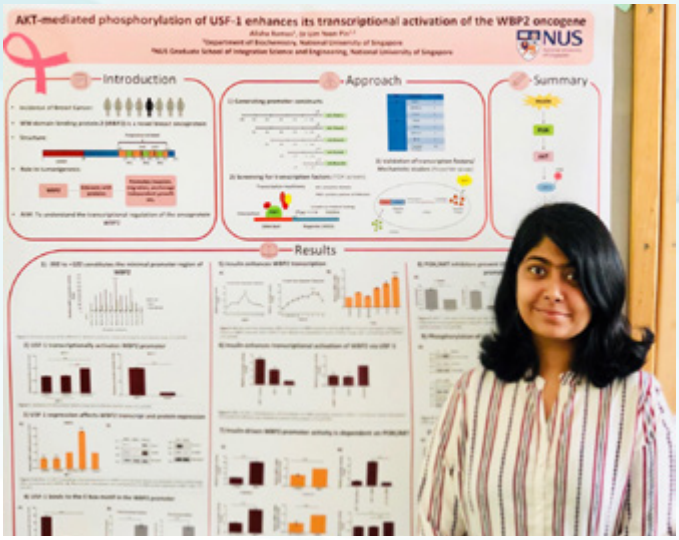
ASM Microbe 2018 was held at the Georgia World Convention Centre (GWCC) in Atlanta from the 7th to the 11th of June 2018. There were many tracks on discussion at the conference which ranged from antimicrobial resistance, host-microbe biology, microbial ecology, public health and even professional talks aimed at helping microbiologists in their careers.

Many interesting talks were held, often concurrently which made it challenging to attend every session. The posters on display were also of new and interesting topics, often unpublished which made it exciting to learn of cutting-edge developments in microbiology. Networking was also an integral part of the conference and there were many workshops and even receptions where one can interact with students, professors and professionals from all over the world.

I gained a deep understanding of the important role that microbiologists play in the world given that almost every part of our lives from the water we drink, food we eat and even what goes on in our bodies is affected by the microbes that live on, in and with us.

Not all was work and Atlanta is a beautiful city with plenty of greenery. It is also home to many large corporations we are familiar with such as Coca-cola and CNN. A wonderful place to visit, it is sure to have something for everyone.





Alisha F Ramos
Graduate Study: PhD
Name of Supervisor:
Dr. Lim Yoon Pin

Mechanisms and Models of Cancer
14th-18th August 2018
Cold Spring Harbor Laboratories,
New York, USA.

The theme of the conference was very relevant to my work. The talks covered diverse topics and helped me understand the latest developments in the field of therapy, diagnostics, cancer models and basic science. It also provided opportunities to meet fellow researches from around the globe and share research ideas and advances.

The organizers had also arranged for a career session for graduate students where we could interact with mentors working in different spheres of science and gain insights on how to shape our careers. The poster session gave me an opportunity to present my work to fellow participants and get their inputs on my work.

The icing on the cake was meeting the legendary Mr. James Watson, the picturesque landscapes that Cold Spring harbor offers and the history it holds.

Abstract

WW-**D**omain **B**inding **P**rotein **2** (WBP2) a transcriptional co-activator, plays a vital role in breast tumorigenesis. It positively regulates ER, Hippo and Wnt pathways, which subsequently enhance the transcription of downstream target genes contributing to cancer. WBP2 overexpression in breast cancer cells was found to promote cell proliferation, migration, invasion and anchorage-independent growth. Understanding the regulation of the expression and activity of WBP2 oncoprotein has implication in cancer therapy. We have previously reported that WBP2 is regulated at the post translational and post transcriptional level. However, its regulation at the transcriptional level is not known.

In this study, the minimal promoter region of WBP2 and the regulatory motif that is critical for its transcription were identified. **U**pstream **S**timulatory **F**actor **1** (USF-1) was discovered to be a key transcription factor for WBP2 through Yeast-1-Hybrid and validated through reporter, ChIP assays and tandem mass spectrometry, which also suggest that USF-1 acts by regulating a network of genes, in addition to WBP2, associated with cell movement, proliferation, cell cycle and survival cellular processes.USF-1 is overexpressed in majority of the breast cancer cell lines and tissues tested and has profound effects on cancer cell proliferation .USF-1 mediated transcription of WBP2 was demonstrated to be inducible by insulin, which led to AKT-mediated phosphorylation of USF-1 that modulated its ability to bind to the WBP2 promoter and activate its transcription. This study sheds new insights into the regulation of the WBP2 oncogene at the transcriptional level by a novel oncogenic transcription factor USF-1. USF-1 is a potential drug target for treatment of WBP2-positive breast cancer.

Scenic campus of cold spring harbour laboratories

The James Watson laboratory at CSHL and the man himself

Events

Staff Welfare Event – Perfume Making Workshop: 24 September 2018, Monday

We began our highly anticipated workshop after a hearty buffet lunch at the department. The instructor gave a very engaging presentation on the history of perfume and different fragrances, and we created our own signature scent based on a personality test. Like a scene from a Harry Potter movie, everyone created their 'potions' by adding specific drops of different exotic orchid perfume oils. We ended the workshop with each team performing a skit to promote their perfumes. It is pretty cool to create our own bespoke perfume, either for ourselves or our loved ones. The best part was that everyone got to bring home their special concoction, personalized with their names engraved on the crystal perfume bottle. The workshop is indeed a unique scent-sory experience for everyone!

[Dr Chua Yee Liu, Member of Biochemistry Staff Welfare Committee]

Events

Safety Tea: 27 September 2018, Thursday

The second Safety Tea in 2018 was held on 27th September 2018 in LT35 in MD6, and was attended by more than 160 participants, including academic staff, research staff, postgraduate students, undergraduate students and research collaborators. Deputy Head of Department, A/P Maxey Chung gave the opening speech and congratulated the Safety Video Team on winning the top two awards for Outstanding Safety Videos in NUS Medicine Safety Day 2018. He also reminded everyone to continue to put safety as a top priority when working in the lab. Dr Kenneth Ban, the Safety Chair, shared new safety updates including the newly implemented Laboratory Materials Management System (LMMS), new requirements for Explosive Precursors and updates to NUS Safety & Health Manuals, Standards & Quick Guides. The Safety Tea ended with a delightable spread of afternoon tea snacks.

[Dr Yap Lai Lai, Member of Biochemistry's Safety Committee]

Research Publications

Extracted from NUS Elements; journal articles reporting date from 1 June 2018 to 31 December 2018.

Admasu, T. D., Batchu, K. C., Ng, L. F., **Cazenave-Gassiot, A., Wenk, M. R., & Gruber, J.** (2018). Lipid profiling of C. elegans strains administered pro-longevity drugs and drug combinations. *Scientific Data,* 5. doi:10.1038/sdata.2018.231

Burla, B., Arita, M., Arita, M., Bendt, A. K., **Cazenave-Gassiot, A.**, Dennis, E. A., . . . **Wenk, M. R.** (2018). MS-based lipidomics of human blood plasma - a community-initiated position paper to develop accepted guidelines.. *J Lipid Res*. doi:10.1194/jlr.S087163

Chan, J. P., Wong, B. H., Chin, C. F., Galam, D. L. A., Foo, J. C., Wong, L. C., . . . **Wenk, M. R., Cazenave-Gassiot, A.**, Silver, D. L. (2018). The lysolipid transporter Mfsd2a regulates lipogenesis in the developing brain. *PLOS BIOLOGY, 16(8),* 30 pages. doi:10.1371/journal.pbio.2006443

Harel, T., Quek, D. Q. Y., Wong, B. H., **Cazenave-Gassiot, A., Wenk, M. R.**, Fan, H., . . . Edvardson, S. (2018). Homozygous mutation in MFSD2A, encoding a lysolipid transporter for docosahexanoic acid, is associated with microcephaly and hypomyelination. *Neurogenetics*. doi:10.1007/s10048-018-0556-6

Teo, E., Batchu, K. C., Barardo, D., Xiao, L., **Cazenave-Gassiot, A.**, Tolwinski, N., **Wenk, M. R., Halliwell, B., Gruber, J.** (2018). A novel vibration-induced exercise paradigm improves fitness and lipid metabolism of Caenorhabditis elegans. *SCIENTIFIC REPORTS*, 8, 15 pages. doi:10.1038/s41598-018-27330-3

Lim, Y. P., Go, M. K., Raida, M., Inoue, T., **Wenk, M. R.**, Keasling, J. D., . . . **Chang, M. W., Yew, W. S.** (2018). Synthetic Enzymology and the Fountain of Youth: Repurposing Biology for Longevity. *ACS Omega,* 3(9), 11050-11061. doi:10.1021/acsomega.8b01620

Sam, Q. H., **Yew, W. S.**, Seneviratne, C. J., **Chang, M. W.**, & Chai, L. Y. A. (2018). Immunomodulation as Therapy for Fungal Infection: Are We Closer?. *FRONTIERS IN MICROBIOLOGY, 9,* 16 pages. doi:10.3389/fmicb.2018.01612

Chen, B., Lee, H. L., Heng, Y. C., Chua, N., Teo, W. S., Choi, W. J., . . . **Chang, M. W.** (2018). Synthetic biology toolkits and applications in Saccharomyces cerevisiae. *Biotechnology Advances,* 36(7), 1870-1881. doi:10.1016/j.biotechadv.2018.07.005

Lee, H. L., Shen, H., Hwang, I. Y., Ling, H., Yew, W. S., Lee, Y. S., & **Chang, M. W.** (2018). Targeted Approaches for In Situ Gut Microbiome Manipulation. *GENES,* 9(7), 12 pages. doi:10.3390/genes9070351

Rahaman, S., Yusop, J., Mohamed-Hussein, Z., Mohd, A., Ho, K. L., Teh, A. -H., . . . **Chen, E. S.**, Ng, C. L. (2018). Crystal structure and functional analysis of human C1ORF123.. PeerJ, 6, e5377.

Ren, B., Sayed, A. M. M., Tan, H. L., Mok, Y. K., & **Chen, E. S.** (2018). Identifying Protein Interactions with Histone Peptides Using Bio-layer Interferometry. *Bio Protocol, 8*(18), e3012.

Chen, E. S. (2018). Targeting epigenetics using synthetic lethality in precision medicine. *Cellular and Molecular Life Sciences*, 75(18), 3381-3392. doi:10.1007/s00018-018-2866-0

Seah, K. S., Loh, J. Y., **Thi, T. T. N**., Hwei, L. T., Hutchinson, P. E., Lim, K. K., **Long, Y.C**.,. . . **Chen, E. S.** (2018). SAHA and cisplatin sensitize gastric cancer cells to doxorubicin by induction of DNA damage, apoptosis and perturbation of AMPK-mTOR signalling. *EXPERIMENTAL CELL RESEARCH, 370*(2), 283-291. doi:10.1016/j.yexcr.2018.06.029

Bi, X., Loo, Y. T., Ponnalagu, S., & **Henry, C. J.** (2018). Obesity is an independent determinant of elevated C-reactive protein in healthy women but not men. *Biomarkers*. doi:10.1080/1354750X.2018.1501763

Ambaw, Y. A., Chao, C., Ji, S., Raida, M., **Torta, F., Wenk, M. R.**, & Tong, L. (2018). Tear eicosanoids in healthy people and ocular surface disease. Scientific Reports, 8(1). doi:10.1038/s41598-018-29568-3

Ku, J. W., & **Gan, Y. H.** (2019). Modulation of bacterial virulence and fitness by host glutathione. *Current Opinion in Microbiology*, 47, 8-13. doi:10.1016/j.mib.2018.10.004

Lam, M. M. C., Wyres, K. L., Duchene, S., Wick, R. R., Judd, L. M., **Gan, Y. -H.**, . . . Holt, K. E. (2018). Population genomics of hypervirulent Klebsiella pneumoniae clonal-group 23 reveals early emergence and rapid global dissemination. *NATURE COMMUNICATIONS*, 9, 10 pages. doi:10.1038/s41467-018-05114-7

Gamage AM, Liao C, Cheah IK, Chen Y, Lim DRX, Ku JWK, , . . ., **Halliwell B, & Gan Y-H** (2018). The proteobacterial species Burkholderia pseudomallei produces ergothioneine, which enhances virulence in mammalian infection. *FASEB JOURNAL*, 32(12), 6395-6409. doi:10.1096/fj.201800716

Lakshmanan, L. N., Yee, Z., Ng, L. F., Gunawan, R., **Halliwell, B., & Gruber, J**. (2018). Clonal expansion of mitochondrial DNA deletions is a private mechanism of aging in long-lived animals. *Aging Cell,* 17(5). doi:10.1111/acel.12814

Chen, J., Rajasekaran, M., Xia, H., Kong, S. N., Deivasigamani, A., Sekar, K., . . . **Hong, W. J.**, Hui, K. M. (2018). CDK1-mediated BCL9 phosphorylation inhibits clathrin to promote mitotic Wnt signalling. *EMBO Journal,* 37(20). doi:10.15252/embj.201899395

Sun, L., Xu, X., Chen, Y., Zhou, Y., Tan, R., Qiu, H., . . . **Hong, W. J.**, Wang, T. (2018). Rab34 regulates adhesion, migration, and invasion of breast cancer cells. *Oncogene*, 37(27), 3698-3714. doi:10.1038/s41388-018-0202-7

Li, Y., Liu, S., Ng, E. Y., Li, R., Poulsen, A., Hill, J. ..., **Hong, W. J.**, . . . Kang, C. B. (2018). Structural and ligand-binding analysis of the YAP-binding domain of transcription factor TEAD4. *Biochemical Journal,* 475(12), 2043-2055. doi:10.1042/BCJ20180225

Toloczko, A., Guo, F., Yuen, H. F., Wen, Q., Wood, S. A., Ong, Y. S., . . **Hong, W. J.**, . Chan, S. W. (2017). Deubiquitinating enzyme USP9X suppresses tumor growth via LATS kinase and core components of the Hippo pathway. *Cancer Research*, 77(18), 4921-4933. doi:10.1158/0008-5472.CAN-16-3413

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Jin, Y., Wang, J., Bachtiar, M., Chong, S. S., & **Lee, C. G. L.** (2018). Architecture of polymorphisms in the human genome reveals functionally important and positively selected variants in immune response and drug transporter genes.. *Hum Genomics, 12*(1), 43. doi:10.1186/s40246-018-0175-1

Liu, S., Jin, Y., Zhang, D., Wang, J., Wang, G., & **Lee, C. G. L.** (2018). Investigating the Promoter of FAT10 Gene in HCC Patients. *GENES*, 9(7), 18 pages. doi:10.3390/genes9070319

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Triebl, A., & **Wenk, M. R.** (2018). Analytical Considerations of Stable Isotope Labelling in Lipidomics. *Biomolecules, 8*(4). doi:10.3390/biom8040151

Tukijan, F., Chandrakanthan, M., & **Nguyen, L. N.** (2018). The signalling roles of sphingosine-1-phosphate derived from red blood cells and platelets. *British Journal of Pharmacology*, 175(19), 3741-3746. doi:10.1111/bph.14451

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Rashid, M. B. M. A., Toh, T. B., Hooi, L., Silva, A., Zhang, Y., Tan, P. F., . . . **Jha, S.**, ... Chow, E. K. -H. (2018). Optimizing drug combinations against multiple myeloma using a quadratic phenotypic optimization platform (QPOP). *SCIENCE TRANSLATIONAL MEDICINE,* 10(453), 17 pages. doi:10.1126/scitranslmed.aan0941

Rajagopalan, D., Tirado-Magallanes, R., Bhatia, S. S., Teo, W. S., Sian, S., Hora, S., . . . **Jha, S**. (2018). TIP60 represses activation of endogenous retroviral elements.. *Nucleic Acids Res*. doi:10.1093/nar/gky659

Xuan Lin, Q. X., Sian, S., An, O., Thieffry, D., **Jha, S.,** & Benoukraf, T. (2018). MethMotif: an integrative cell specific database of transcription factor binding motifs coupled with DNA methylation profiles.. *Nucleic Acids* Res. doi:10.1093/nar/gky1005

Yeo-Teh, N. S. L., Ito, Y., & **Jha, S**. (2018). High-Risk Human Papillomaviral Oncogenes E6 and E7 Target Key Cellular Pathways to Achieve Oncogenesis. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*, 19(6), 27 pages. doi:10.3390/ijms19061706

Yong, C. Q. Y., & **Tang, B. L.** (2018). Another longin SNARE for autophagosome-lysosome fusion-how does Ykt6 work?. *Autophagy*. doi:10.1080/15548627.2018.1532261

Tang Bor Luen. (2018). Responding to devious demands for co-authorship: A rejoinder to Bülow and Helgesson's 'dirty hands' justification. *Research Ethics*. doi:10.1177/1747016118798876

Hor, C. H. H., & **Tang, B. L.** (2018). Beta-propeller protein-associated neurodegeneration (BPAN) as a genetically simple model of multifaceted neuropathology resulting from defects in autophagy. *Reviews in the Neurosciences*. doi:10.1515/revneuro-2018-0045

Tang, B. L. (2018). On Some Possible Ramifications of the "Microplastics in Fish" Case. *Science and Engineering Ethics*. doi:10.1007/s11948-018-0063-z

Yong, C. Q. Y., & **Tang, B. L.** (2018). A Mitochondrial Encoded Messenger at the Nucleus.. *Cells,* 7(8). doi:10.3390/cells7080105

Tang, B. L. (2018). Unconventional Secretion and Intercellular Transfer of Mutant Huntingtin.. *Cells,* 7(6). doi:10.3390/cells7060059

Rust, R. C., Landmann, L., Gosert, R., **Tang, B. L., Hong, W. J.**, Hauri, H. P., . . . Bienz, K. (2001). Cellular COPII proteins are involved in production of the vesicles that form the poliovirus replication complex. *JOURNAL OF VIROLOGY*, 75(20), 9808-9818. doi:10.1128/JVI.75.20.9808-9818.2001

Sanchez-Mejias, A., Kwon, J., Chew, X. H., Siemens, A., Sohn, H. S., Jing, G., . . . **Tay, Y.** (2018). A novel SOCS5/miR-18/miR-25 axis promotes tumorigenesis in liver cancer.. *Int J Cancer*. doi:10.1002/ijc.31857

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[Extracted: 10 December 2018]

Dr Yvonne Tay's
baby girl, Leah Tan
Born on 24 July 2018

Farewell

Ho Chun Loong Last Day 9 July 2018	Chua Niying Last Day 20 July 2018	Foo Chuan De Last Day 1 August 2018	Kemas Aurino Muhammad Last Day 15 August 2018
Cheah Wai Yuen Last Day 10 September 2018	Pham Hoang Long Last Day 26 September 2018	Wen Ke Yan Last Day 28 September 2018	Xia Pengfei Last Day 10 October 2018
Gaynor Yong Li Li Last Day 15 October 2018	Vidhi Kanaiyalal Patel Last Day 31 October 2018	Yim Jian Nam Last Day 31 October 2018	Lim Si-Hui Jolander Last Day 6 November 2018
Mohammad Talaei Pashiri Last Day 9 July 2018	Hoh Chu Han Last Day 30 November 2018	Maulana Bachtiar Last Day 30 November 2018	Lee Na Rae Last Day 31 December 2018
Chen Yanan Last Day 31 December 2018	Vu Minh Thiet Last Day 31 January 2019	Sim Wenjing Last Day 10 January 2019	Safia Syaqirin Last Day 19 November 2018
Tan Yihan Last Day 11 January 2019			

If we missed any news that you would like to share,
please contact:
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