



Science Faculty e-Newsletter



2015 C N Yang Lectureship in Physics -
Professor SHI Yigong

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THE BEAUTY OF LIFE SCIENCES

The Department of Physics of the Faculty of Science is pleased to present the first CN Yang Lectureship in Physics to Professor SHI Yigong, Dean of the School of Life Sciences, and Director of Institute of Biomedicine, Tsinghua University on 23 April 2015. Professor Shi shared with over 280 CUHK teachers and students “The Beauty of Life Sciences” on the same day.

Professor Shi started his talk by showing the relative life span of the Universe versus that of Human. Professor Shi illustrated by stating that if the life span of the Universe was taken as a month long, then the solar system would be around 10 days while the development of civilization would be only a second. However, it was this one second that attributed a big difference to the world. Human beings are bravely determined to explore who we are, where we are from and what’s around us.

Structural Biology is an important study in Life Sciences because human perceive “Seeing is Believing”. But, human have their own perception, bias or limitation which may restrict ourselves from finding the whole truth. He elaborated further on the limitation of mankind in terms of the five senses of human. Our senses are not as good as mosquitos in smell, or honeybees and goldfishes in vision. We, therefore, cannot rely entirely on our subjective five senses. In order to see the Power of Life Sciences, he encourages students to understand Physics, Mathematics and Biology holistically.

Another seminar named “Mechanisms of Programmed Cell Death through Structural Biology” was given to more than 200 students and teachers by Professor Shi on another day at CUHK.

Professor Shi is an Academician of



the Chinese Academy of Sciences, a Fellow of the American Association for Advancement of Sciences, an Honorary Foreign Member of the American Academy of Arts and Sciences, a Foreign Associate of the US National Academy of Sciences, and a Foreign Associate of the European Molecular Biology Organization. For the video of the seminar, please visit http://www.phy.cuhk.edu.hk/events/public_lecture/150423_video.wmv.

*“Life Science is cool, but how much we can go.....”
“..... we begin to gain knowledge using approaches of mathematics and physics to explore the unknown side of mankind”*

by Professor Shi Yigong

The C N Yang Lectureship in Physics is established to provide an avenue to bring in distinguished academics to inspire our students and faculty members.

Professor Jiang awarded again as Croucher Senior Research Fellow for the Discovery of Magic Protein published in PNAS

Professor Liwen JIANG, Choh-Ming Li Professor of Life Sciences, received the prestigious Senior Research Fellow of The Croucher Foundation the second time in recognition of Professor Jiang and his research team's outstanding research achievements in plant biotechnology.

Professor Jiang's research team have identified a magic protein that regulates vacuolar protein transport, vacuole biogenesis and vacuole-autophagosome-mediated degradation in plant cells. These findings may shed new light on increasing crop nutrients and thereby output as well as the development of plant biotechnology. Their discoveries of “Magic Protein” have recently been published in the Proceedings of the National Academy of Sciences (PNAS), the official scientific journal of the National Academy of Sciences of USA. The award was presented by the Honourable Mr John Tsang Chun-wah, Financial Secretary for Administration of the HKSAR Government on 20 April 2015.



Mr John Tsang Chun-wah, Financial Secretary for Administration of the HKSAR Government, presents the award of Senior Research Fellowship of The Croucher Foundation to Professor Jiang Liwen.

Further Readings:

Caiji Gao, Qiong Zhao, and Liwen Jiang “Vacuoles protect plants from high magnesium stress” in PNAS, vol. 112 no. 10, 2015: DOI: 10.1073/pnas.1501318112

Caiji Gao, Ming Luo, Qiong Zhao, et. al. “Unique Plant ESCRT Component, FREE1, Regulates Multivesicular Body Protein Sorting and Plant Growth” in Journal of Current Biology, 2014: DOI:<http://dx.doi.org/10.1016/j.cub.2014.09.014>

Hearty Congratulations!



Physics student won 2nd Runner-up in the FameLab HK 2015

Final Year Physics student, Law Yuk Ting Albert won the 2nd runner-up in the FameLab HK 2015 competition. Albert was thrilled by given the chance of promoting science to both science and non-science audiences. He picked the topic that relates to the Sun and tells how it shines.

Albert wore a nice T-shirt, printed with Einstein's famous equation $E=mc^2$, at the final round presentation. It had successfully attracted audiences' eyes and made his presentation more dramatic. Albert recalled that the 3-minute time limit was a challenge to him. From engaging the attention of the audiences, guiding them to the topic, explaining the theory, and most importantly, stimulating them to realize the beauty of "Science" had to be completed in that compelling 180 seconds.

Albert has planned to continue his study in Physics hoping to strengthen his science knowledge and promote science to the public. He encourages all youngsters to join this exciting and meaningful event. To watch Albert's presentation, please visit <https://youtu.be/-dtqnDRJ4Ck>.

CUHK also won the Best Institution Award for two consecutive years in the FameLab Hong Kong 2015 organized by the British Council. Nancy Wing-sze Law, a Year 3 medical student won the Grand Prize and was voted by all audiences as the Audience Choice Award. She will represent Hong Kong in the FameLab International competition at the Cheltenham Science Festival in the UK in June 2015.

FameLab is an international science communication competition and held for the first time in Hong Kong back in 2009 as part of the annual Science Alive programme of the British Council. The competition aims to encourage young scientists (20 to 35 years old) to inspire and excite public imagination with a vision of science in the 21st century.



CUHK Professors & Students at the FameLab 2015 HK Grand Finals.
From left: Prof. Rossa Chiu (Assistant Dean of the Faculty of Medicine,); Prof. Leung Kwok Nam (Associate Dean of the Faculty of Science); Albert Law Yuk Ting (2nd runner-up, Physics); Nancy Law Wing Sze (Grand Winner & winner of Audience Choice Award, Medicine); Ooi Hon Son (finalist, Biomedical Engineering); Prof. Dickon Ng (Associate Dean of the Faculty of Science) and Prof. Wong Kam Fai (Associate Dean of the Faculty of Engineering)

(Photo Courtesy: British Council Hong Kong)

Academic Planning Day for S5 students



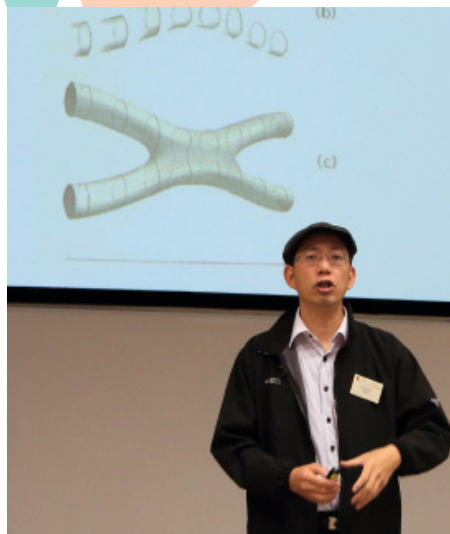
Over 500 students attended the Academic Planning Day for S5 Students on Saturday 28 March 2015 held at the Lady Shaw Building.

Working in partnership with Departments, School and Programmes, admission talks, information posters and enquiry counters were set up to help students to explore more about the structure of 16 major programmes, subjects offered, studying paths and teaching and learning environment in CUHK.

An admission booklet which stipulates comprehensive admission information including programme overview, faculty course package, major declaration, student sharing, exchange programme and entrance requirements were distributed in the event. We hope that the students can gain a perspective on preparations for their undergraduate studies.



The 11th Lau Oi Wah Memorial Science Lecture Series



Prof. Conan Leung explaining the concept of "Superstring".



Dean of Science presents souvenirs to speakers.



Prof. Amos Tai rounded by students who raised questions after the event.



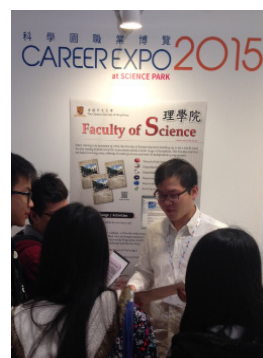
Dr. Iris Pang introducing her exciting topic "Ebola: the Micro-Killer" to students.

Committed to bridging the distance between the scientific frontiers and the general public, the CUHK Faculty of Science and the Lau Oi Wah Memorial Fund presented the 11th Lau Oi Wah Memorial Science Lecture Series at the Yasumoto International Academic Park of CUHK on 7 March 2015. Three popular sciences topics, namely Ebola: The Micro-Killer (by Dr. Pang Kok Shuen Iris of the School of Life Sciences), Geometry & Physics in String Theory (by Prof. Leung Nai Chung Conan of the Department of Mathematics) and

Global Food Crisis under Climate Change (by Prof. Tai Pui Kuen Amos of the Earth System Science Programme) were delivered.

The lecture series was attended by over 400 secondary school students and teachers. Many students were eager to raise questions when the floor was open for Q&A. For photo highlights of the event, please click [here](#).

Faculty of Science participated in the Career Expo at Science Park 2015



The Faculty participated in the Career Expo at Science Park 2015 held on 14 March 2015. The event attracted over 4,500 visitors including practitioners from the technology industry, final year undergraduates and postgraduates who are looking for internships, job opportunities and information on further studies. The Expo focused on five key technology clusters naming Electronics, Biomedical, Green Tech, ICT and Precision Engineering.

Career Expo at Science Park 2015 served as a platform for job-hunting, further education and science & technology industry information. The Faculty of Science was one of the co-organizers of this year's event.

Warmest Congratulations to Professor Poon Wai Yin - our new Pro-Vice-Chancellor

Our heartfelt congratulations to Professor Poon Wai Yin, Department of Statistics, on her appointment as Pro-Vice-Chancellor of the University with effect from 1 May 2015.



congratulations

Faculty Retreat 2014-15

The 2014-15 Science Faculty Retreat took place on Saturday, 18 April 2015 at the Jockey Club Shatin Clubhouse. The focus of this year's Retreat fell onto the vision shared by six junior academic staff from Departments, School and Programmes. They shared invaluable insights which would be further explored in the coming years. An open discussion after the presentation by Professor Xie Zuowie (Associate Dean, Research), followed to evaluate recruitment strategies.



Dean of Science and faculty members at the Faculty Retreat 2014-15

Invitations for Applications

Focused Innovations Scheme -Scheme B: Seed Support for High Promise Initiatives (2014-15)

Deadline: 15 May 2015

PROCORE-France/Hong Kong Joint Research Scheme 2015/16

Deadline: 18 May 2015

Taiwan Collaboration Fund 2015/16

Deadline: 25 May 2015

Environment and Conservation Fund (ECF) - Environmental Research, Technology Demonstration and Conference Projects

Deadline: 8 June 2015

Germany/Hong Kong Joint Research Scheme 2015/16

Deadline: 15 June 2015

For details for the above schemes, please visit: http://www.cuhk.edu.hk/rao/rga/current_requests.html

Recent External Grants Obtained

Congratulations to our faculty members

- ☞ Chow Tai Fook Charity Foundation Ltd.
Research on *Spinocerebellar ataxias*
PI: Professor Chan Ho Yin Edwin (Life Sciences)
Funded Amount: HK\$1.67M
- ☞ Environment and Conservation Fund
Genetic Diversity and Population Structure of Freshwater Fish in Hong Kong and South China
PI: Professor Chu Ka Hou (Life Sciences)
Funded Amount: HK\$1.02M
- ☞ Health and Medical Research Fund
Biological Crystal Subunit Vaccines for Mycobacterial Diseases
PI: Professor Chan Michael (Life Sciences)
Funded Amount: HK\$1.0M
- ☞ Rural Development Administration of the Republic of Korea
Development of Carbon Metabolism Engineering Biotechnology to Improve Yield of Crop Plants (collaborated with Pohang University of Science and Technology)
PI: Professor Kang Byung-ho (Life Sciences)
Funded Amount: HK\$1.7M

UPCOMING DATES AND EVENTS

Monthly Meetings with Dean of Science

All faculties are cordially invited to join the informal staff meetings with the Dean of Science, Professor Henry Nai-ching Wong, in Room G25 Charles Kao Building of Science Centre at 3:30pm - 4:30pm, on :

- 29 May 2015 (Friday)
- 26 June 2015 (Friday)
- 27 July 2015 (Monday)
- 28 August 2015 (Friday)

Seminar series by Research Committee

A seminar series on “To Diversify Your Research Funding Base” will be organized by the Research Committee in the coming months: ([details](#))

Quality Education Fund (event)

Date and Time: 5 May 2015 (Tuesday) 11:00am
Venue: LT1, Institute of Chinese Studies (ICS)

Innovation and Technology Fund

Date and Time: 3 August 2015 (Monday) afternoon

Croucher Foundation

Date and Time: 8 October 2015 (Thursday) afternoon

Science Faculty Research Day 2015

The Faculty will organize the captioned event with focus on “Energy” and related disciplines. Three speakers have been invited to speak on topics of the above theme.

Event [details](#) are as follows:

Date: 3 June 2015 (Wednesday)
Time: 9:00a.m. - 12:35p.m.
Venue: L2, Science Centre, CUHK

Speakers: **Professor TANG Ben Zhong** (Chair Professor)

Department of Chemistry, HKUST

Professor LU Yi-Chun (Assistant Professor)

Department of Mechanical and Automation Engineering, CUHK

Professor XIAO Xudong (Professor)

Department of Physics, CUHK

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