

# Alumni Newsletter

## Department of Biology

### Hong Kong Baptist University

#### Academic staff, Academic Year 2023-24



Prof. XIA,  
Yiji  
夏亦齊教授  
Head of Department  
Chair Professor



Prof. QIU,  
Jianwen  
邱建文教授  
Associate Head  
of Department  
Professor



Dr. LEE,  
Chi Wai  
李志偉博士  
Associate Professor



Prof. ZHAO,  
Zhongying  
趙中應教授  
Professor



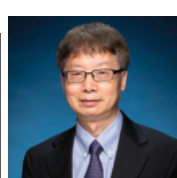
Prof. ZHANG,  
Jianhua  
張建華教授  
Chair Professor  
Associate Vice-President  
(Global Research Collaboration)



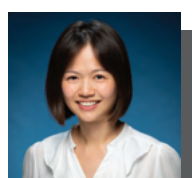
Prof. LI,  
Jianming  
李建明教授  
STEM Professor



Prof. WONG,  
Chris Kong Chu  
黃港住教授  
Professor  
Associate Dean,  
Faculty of Science



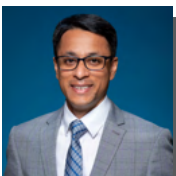
Prof. XIONG,  
Liming  
熊禮明教授  
Professor



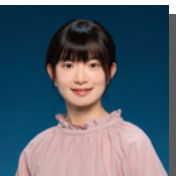
Dr. CHIU,  
Jill Man Ying  
招文瑛博士  
Associate Professor



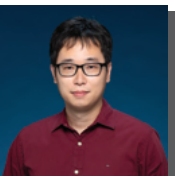
Dr. YANG,  
Zhu  
楊鑄博士  
Assistant Professor



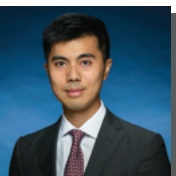
Dr. PRADHAN,  
Nirakar  
Assistant Professor



Dr. LI,  
Baiying  
李白穎博士  
Assistant Professor



Dr. BI,  
Yang  
畢鳴博士  
Assistant Professor



Dr. CHEUNG,  
Allen Ka Loon  
張嘉龍博士  
Assistant Professor



Dr. LIAO,  
Pan  
廖攀博士  
Assistant Professor



Dr. ZHAO,  
Jun  
趙峻博士  
Assistant Professor



Dr. WU,  
Haoxiang  
吳浩翔博士  
Lecturer II



Dr. YUE,  
Patrick Ying Kit  
余英傑博士  
Senior Lecturer



Dr. CHUNG,  
Shan Shan  
鍾嫻嫻博士  
Senior Lecturer



Dr. LEUNG,  
Anna Oi Wah  
梁愛華博士  
Lecturer I



Dr. CHAN,  
Veronica Wai Yee  
陳慧儀博士  
Lecturer II

# Research Achievements

Prof. Zhang Jianhua and Prof. Xia Yiji have been awarded Hong Kong Scholar Program 2023 [\(more\)](#)



Professor Zhang Jianhua once again listed on "Best Plant Science and Agronomy Scientists" [\(more\)](#)

Dr. Zhao Jun has been awarded MTR Research Funding Scheme 2023 [\(more\)](#)



Dr. Liao Pan has been awarded National Natural Science Foundation of China (NSFC)/Research Grants Council (RGC) Joint Research Scheme (JRS) 2023/24 [\(more\)](#)

## **New Academic Staff, Academic Year 2023-24**

### **PROF. LI, Jianming, STEM Professor**

Prof. Li serves as the STEM Professor in the Department of Biology at Hong Kong Baptist University currently. He obtained his BSc degree in biochemistry from Nanjing University in 1984 and his PhD degree in molecular biology from University of Virginia in 1995. He spent 25 years of his independent academic career in the Department of Molecular, Cellular, and Developmental Biology at University of Michigan. Prof. Jianming Li is a ground-breaking researcher in the study of plant steroid hormones and was credited for providing the first genetic evidence of steroids being essential plant hormones and for discovering not only the plant steroid receptor but also its co-receptor and a key cytosolic component of the plant steroid signaling pathway. Prof. Li also pioneered using *Arabidopsis thaliana*, a small flowering plant, as a convenient genetic model system to investigate the eukaryotic protein quality control systems, which are known to be associated with many protein-misfolding human diseases such as Parkinson's and Alzheimer's disease.



### **DR. Lee Chi Wai, Associate Professor**

Dr. Lee is currently an Associate Professor in the Department of Biology and an Honorary Associate Professor in Golden Meditech Centre for NeuroRegeneration Sciences at Hong Kong Baptist University (HKBU). Dr. Lee received his B.Sc. and Ph.D. degrees at the Hong Kong University of Science and Technology. With the support of the Croucher Foundation Fellowship, Dr. Lee performed postdoctoral research in the United States at Rutgers University and Emory University, where his work focused on actin dynamics and receptor trafficking in neurons and neuromuscular junctions. Prior to joining HKBU, Dr. Lee served as the Principal Investigator of the Laboratory of Neuronal Development and Disease at the National University of Singapore and later at the University of Hong Kong. The research interest of his laboratory focuses on the signal transduction and cytoskeletal mechanisms underlying neuronal and neuromuscular synapse development, disease, and regeneration.



## New Academic Staff, Academic Year 2023-24

### DR. Bi Yang, Assistant Professor

Dr. Bi is currently an assistant professor in the Department of Biology at Hong Kong Baptist University. He received his Ph.D. in Biology from Stanford University under the supervision of Dr. Zhiyong Wang and continued to work with Dr. Wang at the Carnegie Institution for Science for his postdoctoral research. He uses a combination of molecular, genetic, biochemical, and proteomic approaches to study signal transduction in plants. His current research focuses on nutrient signaling and proteomics.



### DR. Li Baiying, Assistant Professor

Dr. LI is currently an assistant professor of the Department of Biology at the Hong Kong Baptist University. She received her B.Sc and Ph.D. from the Chinese University of Hong Kong (CUHK), Hong Kong, with Ph.D. and postdoctoral training in Cell and Molecular Biology in Choh-Ming Li Professor JIANG Liwen's Plant Cell Biology team from the School of Life Sciences in CUHK. Dr. Li's research interest include plant cell biology, in vitro reconstitution, protein trafficking, organelle biogenesis, plant autophagy and stress responses.



### DR. Yang Zhu, Assistant Professor

Dr. Yang serves as an Assistant Professor in the Department of Biology at Hong Kong Baptist University currently. He received his Ph.D. from the Department of Physics at Hong Kong Baptist University and subsequently pursued postdoctoral research in the Division of Life Science at the Hong Kong University of Science and Technology. Specializing in proteomics, metabolomics, and computational biology, Dr. Yang is dedicated to advancing integrative multi-omics and systems biology. His research primarily focuses on employing these interdisciplinary methods to decipher complex biological regulations and cellular responses to diverse



## STUDENT GATHERING CUM CAREER TALK

Date: 21 Nov 2023 (Tuesday)

Time: 17:30- 19:00

Venue: OEE601-603

### CAREER SHARING



**Ms. Carol Miao**  
Sustainability Manager - Wheelock Properties  
MSc in EPHM (Alumnus)



**Mr. Alex Wong**  
PHD student at the University of Manchester  
BSc in Applied Biology (Alumnus)

Refreshment will be served!

**2023 Mar**  
**Career Talk cum Student Gathering**



**2023 May**  
**The 64th Commencement**



**2023 July**  
**The Science Festival 2023**

**2023 July**  
**Visit by the Future Technology  
department, China Agricultural  
University**



**2023 Feb**  
**Community Outreach: Farming for Charity**



**More activities...**

# Research Achievements

SEVEN colleagues have been awarded General Research Fund (more)

香港浸會大學 HONG KONG BAPTIST UNIVERSITY Department of Biology 生物系

## 2023-24 General Research Fund (GRF) grant SEVEN funded projects captured by the Department of Biology



**Prof Zhang, Jianhua**  
Role of OsTPP3 in the regulation of hypoxic germination in rice  
HK\$1.6M



**Prof Zhao, Zhongying**  
Establishing the molecular identity of loci responsible for hybrid male sterility and its rescue between nematodes of *Caenorhabditis briggsae* and *C. nigoni*  
HK\$1.8M

香港浸會大學 HONG KONG BAPTIST UNIVERSITY Department of Biology 生物系

## 2023-24 General Research Fund (GRF) grant SEVEN funded projects captured by the Department of Biology



**Prof Xia, Yiji**  
Defining the mechanism and function of Arabidopsis mRNA capping enzymes  
HK\$1.78M

**Prof Xiong, Liming**  
Small peptide regulation of plant drought tolerance  
HK\$1.6M



香港浸會大學 HONG KONG BAPTIST UNIVERSITY Department of Biology 生物系

## 2023-24 General Research Fund (GRF) grant SEVEN funded projects captured by the Department of Biology



**Dr Liao, Pan**  
Understanding the biosynthesis of irregular monoterpenes for their heterologous production  
HK\$1.56M



**Dr Zhao, Jun**  
Development of an oxidant-free catalytic system for one-pot synthesis of 2,5-diformylfuran from fructose and the catalytic mechanism study  
HK\$1.13M



**Dr Ip Chi Ho**  
Symbiotic zooxanthellae diversity and stability during coral bleaching in a marginal subtropical reef: A meta-haplotype approach  
HK\$0.84M

Led by Professor Qiu Jianwen, the research team discovers new box jellyfish species in Hong Kong [\(more\)](#)



HKBU-led team discovers new box jellyfish species in Hong Kong

Hong Kong Maritime Museum features New Coral Species discovered by Professor Qiu Jianwen's Team [\(more\)](#)



## HONG KONG MARITIME MUSEUM

FEATURES NEW CORAL SPECIES DISCOVERED BY PROF JIANWEN QIU'S TEAM

Professor Zhang Jianhua and his research team have discovered that GRAS genes in white lupin play a role in promoting root growth [\(more\)](#)

## DISCOVERS GRAS GENES IN WHITE LUPIN PROMOTE ROOT GROWTH AND PHOSPHORUS ACQUISITION

浸大植物生物學家揭示白羽扇豆GRAS基因促進根系生長和磷吸收

PROFESSOR ZHANG JIANHUA and his research team have discovered that GRAS genes in white lupin play a role in promoting root growth and phosphorus acquisition when the plant is grown in phosphorus-deficient condition.

HKBU BIOLOGY Scientists



## ACCURATE GENOMIC CONTENT EXCHANGE IN ROUNDWORM HYBRID USING CRISPR/CAS9 DESPITE THEIR NATURAL RECOMBINATION RESISTANCE

PROFESSOR ZHAO ZHONG YING & DR JEFFREY XIE DONGYING identified multiple hybrid incompatibility (HI) loci, but the suppressed HR between the two prevented them from identifying the specific genes causing the observed HI phenotypes. Therefore, the researchers sought a more robust method that could facilitate recombination, irrespective of sequence homology.

HKBU BIOLOGY SCIENTISTS

Professor Zhao Zhongying & Dr. Jeffery Xie Dongying identified multiple hybrid incompatibility (HI) loci, but the suppressed HR between the two prevented them from identifying the specific genes causing the observed HI phenotypes. [\(more\)](#)

Dr. Cheung, Allen Ka Loon collaborated with the Center for Medical Innovation, Nagasaki University to establish a tumour mouse model that mimics the real-life scenario of mesothelioma [\(more\)](#)



## γδ T CELL THERAPY

CAN EFFECTIVELY INHIBIT MESOTHELIOMA TUMOR GROWTH BY INDUCTION OF PYROPTOSIS

DR CHEUNG KA LOON ALLEN collaborated with the Center for Medical Innovation, Nagasaki University to establish a tumour mouse model that mimics the real-life scenario of mesothelioma in humans.

# Research Spotlight

香港城市大學 THE HONG KONG CITY UNIVERSITY 香港城市大學 城市大學 生物系 HKBU BIOLOGY Scientists

## Making sense of the floral scent of petunias

is a joint study with Purdue University, DR LIAO PAN, has uncovered how metabolic engineering can alter the release of volatile organic compounds (VOCs) from plants and how to devise a novel strategy to decrease their unfavourable odour. The team experimented with the Petunia flower and discovered that by down regulating the expression of a certain gene in the petunia petals, VOC emissions can be reduced, which can help future sustainability studies on how to remove undesirable gases in the environment.



In a joint study with Purdue University, Dr Liao Pan has uncovered how metabolic engineering can alter the release of volatile organic compounds (VOCs) from plants and how to devise a novel strategy to decrease their unfavourable odour. [\(more\)](#)

A research team co-led by Dr Nirakar Pradhan uncovers How Zero-valent Iron Nanoparticles Boost Hydrogen Production from Kitchen Waste [\(more\)](#)



A research team co-led by **DR NIRAKAR PRADHAN** uncovers How Zero-valent Iron Nanoparticles Boost Hydrogen Production from Kitchen Waste

香港城市大學 THE HONG KONG CITY UNIVERSITY 香港城市大學 城市大學 生物系 HKBU BIOLOGY Scientists

## Uncovers the Power of Clay Catalysts for Converting Mixed Plastic Waste into Fuel and Energy

**DR ZHAO JUN**



Dr Zhao Jun uncovers the Power of Clay Catalysts for Converting Mixed Plastic Waste into Fuel and Energy [\(more\)](#)

Dr Zhao Jun conducted a research study focusing on the investigation and optimization the development strategy of using magnesium oxide biochar catalyst for the isomerization of glucose to fructose, with a specific focus on the impact of synthesis methods on the catalyst's stability [\(more\)](#)

香港城市大學 THE HONG KONG CITY UNIVERSITY 香港城市大學 城市大學 生物系 HKBU BIOLOGY Scientists

## COMPOSITE CATALYST OF MAGNESIUM OXIDE AND BIOCHAR PROMOTES GLUCOSE TO FRUCTOSE CONVERSION EFFICIENTLY AND STABLY

**DR ZHAO JUN**, conducted a research study focusing on the investigation and optimization the development strategy of using magnesium oxide biochar catalyst for the isomerization of glucose to fructose, with a specific focus on the impact of synthesis methods on the catalyst's stability.

**HKBU BIOLOGY Scientists**





# Department and Programmes Highlights



Our department are recruiting PhD students to join our research team. PhD research degrees are an integral part of our academic ethos, where students are required to conduct independent research projects under the supervision of one or more of the department's faculty members, with the relevant expertise. [\(more\)](#)

This year, more than 60 internship opportunities were offered for our students majoring in Bioresource and Agricultural Science, Environmental Science and Biotechnology. This programme provides students with valuable opportunities to experience different working environments and career prospects in related fields and most important is to acquire different essential techniques and professional skills. [\(more\)](#)

香港浸會大學 HONG KONG BAPTIST UNIVERSITY Department of Biology 生物系

## Summer Internship Programme

Over 30 partnering companies/ organisations offering 70+ internship opportunities

**Target student:**  
Year 2 & Year 3  
BSc (Hons) in Applied Biology &  
BSc (Hons) in Bioresource and  
Agricultural Science

Partnering companies/ organisations:  
OPCF, ALS, VITARGENT, 川上生物科技 E Farm Biotech, WORLD GREEN ORGANISATION, GLOVER SEED, CASTCO, acumen laboratory, SLASH, Wondfo, COOPLOD REPUBLIC, GROW SOMETHING, 高華種子, 香港自然護理署, 香港有機資源中心, IBA

## Alumni and Student Sharing



**So Wing Yin Tina,  
ESG Manager , Environmental, Social & Governance,  
Hang Seng Bank**

### 蘇穎宜:選擇事業不應受學系限制

成功跨界別投身銀行業的蘇穎宜接受香港文匯報專訪時表示，其碩士修讀環境及公共衛生管理（Environmental and Public Health Management），看似與銀行業沒有直接關係，但畢業時已經想加入致力改善環境的公司，「可能普通人會聯想到是加入政府或者NGO工作，但其實在求學時間發現每一間大型企業，都需要有環境方面的工作小組，處理例如全球暖化等議題，銀行公會、金管局等機構都非常關注，在不同的政策上都有指引大企業如何在氣候變化上出一分力，而金融業在環境管理和環境保護上亦擔當着重要的角色。」

蘇穎宜續稱，不同行業都需要人才，選擇自己的事業時不應該受制於求學時期的學科，所以選擇了投身金融業。她現在於恒生銀行從事環境、社會及管治（ESG）相關工作，希望利用銀行的特質和優勢去幫助社會及環境。

[\(more sharing\)](#)

**Ms. WANG Ke - Alumni of Master of Science (MSc) in  
Environmental and Public Health Management**

**Career Status before studying EPHM: Quality  
Officer in a Pharmaceutical Company**

**Current Career status: EPI, Environmental  
Protection Department, HKSAR Government**

**I appreciate that EPHM provides various subjects  
that allow me to learn in different categories. The  
program offered me the chance to get more insight  
into current environmental issues and provided me  
with a deep understanding of the environmental  
policy in Hong Kong...[\(more sharing\)](#)**



## INVITATIONS TO OFFER SUMMER INTERNSHIP FOR OUR STUDENTS

The Department endeavours to establish a strong connection with alumni and enhance the competitive edge of HKBU students. We are eager to provide students with internship positions at renowned corporations located in Hong Kong and the region.

Alumni are now invited to offer internship positions to Year two students studying BSc (Hons) Bioresource and Agricultural Science (BAS), BSc (Hons) Applied Biology (BAB) or MSc in Environmental and Public Health Management. If you are interested, please contact Dr. Veronica Chan ([veronica\\_chan@hkbu.edu.hk](mailto:veronica_chan@hkbu.edu.hk)).

## Update Your Information

By signing up to our alumni network, you will receive alumni relations email communications, news and event invitations from the Department.

Stay in touch and please update your details [HERE](#)

## Share Your News

Share Your Precious Moments of Life and Send Us a Class Note...

Fill in an [online form](#) to update us your successful stories, happy moments (from engagement, marriage or new baby, to a new business or career move), or recent activities. We will send you a special gift!

## Department updates

You are invited to subscribe or follow our social media for our latest updates!



[www.biol.edu.hk](http://www.biol.edu.hk)



[biol@hkbu.edu.hk](mailto:biol@hkbu.edu.hk)



HKBU Biology



香港浸會大學生物系

