

# International Summer School

## **Human Health and Life Sciences**

Aug 1st-Aug 14th, 2022

Harbin Institute of Technology, Harbin, P.R.China

### **About Program**

The first Human Health and Life Sciences Summer School International program will run from July 30 to August 14 in 2022 organized by School of Life Sciences and Technology. This program offers a wide variety of English taught courses such as "the physiology and pharmacology of sleep". We have invited 20 experts with outstanding achievements in the field of lipid metabolism regulation and disease, drosophila neuroscience and so on--- Academician Wang Xiaodong of the American Academy of Sciences, Academician Chen Xiongbiao of the Canadian Academy of engineering, Academician Wang Changyong of the Eurasian Academy of Sciences, as well as scholars from well-known institutions at home and abroad, such as the Chinese University of Hong Kong, the University of Saskatchewan in Canada, Columbia University in the United States, the University of Michigan, the University of Minnesota, the University of Southampton in the United Kingdom, Gwangju University of science and technology in South Korea, Hanyang University, and the University of Tsukuba in Japan Scholars to give short courses and lectures.

### **About Faculties**



**Wang Xiaodong, Ph.D.**

◆ Academician of the National Academy of Sciences of the United States, foreign academician of the Chinese Academy of Sciences, director of the Beijing Institute of life sciences, and founder of Baiji Shenzhou (Beijing) Biotechnology Co., Ltd.



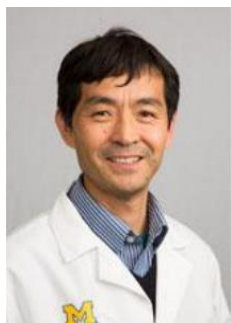
**Chen Xiongbiao, Ph.D.**

◆ Academician of CAE, Professor of Biomedical Engineering Mechanical, Biomedical at the University of Saskatchewan.



**Wang Changyong, Ph.D.**

◆ Academician of the Eurasian Academy of Sciences, deputy director of the Institute of military cognition and brain science, Academy of military medicine.



**Liangyou Rui, Ph.D.**

◆ Louis G.D' Alecy Collegiate Professor of Physiology Professor, Molecular and Integrative Physiology Professor, Internal Medicine, Medical School.



**Michael Lazarus, Ph.D.**

◆ Professor in the Faculty of Medicine at the University of Tsukuba and a Principal Investigator at the International Institute for Integrative Sleep Medicine (WPI-IIIS).



**Junmin Peng, Ph.D.**

◆ Professor in the Departments of Structural Biology and Developmental Neurobiology, and Director of Center for Proteomics and Metabolomics at St. Jude Children's Research Hospital in Memphis, Tennessee, USA.



**Hanming Shen, Ph.D.**

- ◆ Professor in School of Science and Health ,University of Macau.



**Wendong Huang, Ph.D.**

- ◆ Professor in City of Hope National Medical Center, Metabolic regulation by bile acid signaling and gut microbiota.

**Yongjun Kim, Ph.D.**

- ◆ Professor in School of Life Sciences, GIST, Gwang-Ju, Republic of Korea

Remarks: There are still many experts who haven't introduced. Students can know more about them in the course.

## **Requirements**

The fresh, sophomore and junior students having a strong interest in life science from foreign universities will be accepted. Students must have strong English listening and speaking skills since courses will be given in English.

## Schedule of Curriculum

### Class Schedule

| Course Category | Name of Course                              | Experts  | Credit hours    | Credits    |
|-----------------|---|--|-----------------|------------|
| Courses         | Regulation of lipid metabolism and diseases | Hanming Shen, Wendong Huang, Zheng Sun, Li Qiang                   | 24 credit hours | 1.5 credit |
|                 | Drosophila neurobiology                     | Yongjun Kim, Greg Suh, Chunghun Lim, Anmo Kim, KIM NC, Woo Jae Kim |                 |            |
| Lectures        | Structural biology                          | Huang Zhiwei   | 24 credit hours | 1.5 credit |
|                 | Tumor biology                               | Liangyou Rui, Wang Yihua, Deng Mingquan                            |                 |            |
|                 | Biomaterials                                | Chen Xiongbiao, Wang Changyong, Wang Ruibing                       |                 |            |
|                 | Sleep                                       | Michael Lazarus, Junmin Peng                                       |                 |            |

## 2022 Human Health and Life Sciences International Summer School Program Schedule

| Time<br>Date | August 1 (Mon)   | August 2(Tue)   | August 3(Wed)  | August 4(Thu)                                | August 5(Fri)   | August 6(Sat)  |
|--------------|--|---|--|--|---|--|
| 8:00-11:00am | Drosophila vision  | Visuomotor circuit for evasive flight turns in Drosophila | Metabolic signaling pathways& Neurobiology of sexual behavior of fruit fly | Neurobiology of sexual behavior of fruit fly | Frontier lectures on bioprinting and tissue engineering |  |
| 13:00-17:00  | /  | Biomaterials and frontier of nano Biotechnology           | Progress in tumor treatment targets  | /  | Autophagy and metabolism                                |  |
| 18:00-19:00  | Research progress of epithelial mesenchymal transformation in pulmonary fibrosis | /   | /  | /  | /   |  |
| Time<br>Date | August 8(Mon)  | August 9(Tue)   | August 10(Wed)   | August 11(Thu)                               | August 12(Fri)  | August 13(Sat)   |
| 8:30-12:00am | Modeling neurodegenerative diseases using Drosophila melanogast                  | Neurobiology of Systems Nutrient Sensing in Drosophila    | Multi-omics-based Systems Biology to Basic and Clinic Research             | Rhythm and metabolism                        | Lipobiology   | Metabolic regulation by bile acid signaling and gut microbiota |
| 13:00-16:00  | /  | The physiology and pharmacology of sleep                  | Circadian rhythms and sleep  | Circadian rhythms and sleep                  | /   | /  |

Remarks: Time for activities may be changed according to the actual situation, but the contents remain the same. Some lectures may be changed; the final schedule will be announced by 25th July.