

# RECIPIENTS OF CBIS 2022 AWARDS

## (Awardee Biographies in Following Pages)

The Chinese Biological Investigators Society (CBIS) is pleased to announce the recipients of this year's Ray Wu Award, Young Investigator Award, and Teaching award.

**Ray Wu Award** was established by the society to honor the late Dr. Ray Wu, who not only had a distinguished scientific career but also nurtured a new generation of Chinese scientists in life sciences through his tireless effort in promoting scientific and educational exchanges between China and the United States. The Award recognizes CBIS members who have made fundamental discoveries in life sciences and/or significant contributions in promoting life sciences in China.

**This year's award recipients are:**

**Dr. Chuan He, University of Chicago**

**Dr. Manyuan Long, University of Chicago**

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**CBIS Young Investigator Award** recognizes CBIS members who are in the early career stages but have already made remarkable contributions in their respective fields.

**This year's award recipients are:**

**Dr. Chenqi Xu, Institute of Biochemistry and Cell Biology, Shanghai, Chinese Academy of Sciences**

**Dr. Nan Hao, University of California, San Diego**

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**CBIS Teaching Award** recognizes a CBIS member who has contributed extraordinarily to education in biomedical sciences, particularly in China.

**This year's award recipient is:**

**Dr. Guo-Min Li, University of Texas Southwestern Medical Center**

# CBIS 2022 AWARDEE BIOGRAPHIES

## Ray Wu Award



Chuan He, Ph.D.  
HHMI Investigator  
John T. Wilson Distinguished Service Professor  
The University of Chicago  
E-mail: chuanhe@uchicago.edu

Chuan He received his bachelor of science degree in 1994 from the University of Science and Technology of China and his Ph.D. in chemistry from the Massachusetts Institute of Technology in 2000, studying under professor Stephen J. Lippard. After training as a Damon-Runyon postdoctoral fellow with professor Gregory L. Verdine at Harvard University, he joined the University of Chicago as an assistant professor, rising to associate professor in 2008 and full professor in 2010. He is now the John T. Wilson Distinguished Service Professor in the Department of Chemistry and Department of Biochemistry and Molecular Biology at the University of Chicago. He was selected as an investigator of the Howard Hughes Medical Institute in 2013.

Dr. He's research spans a broad range of fields including chemical biology, RNA biology, epigenetics, biochemistry, and genomics. His recent research concerns reversible RNA and DNA methylation in biological regulation. In 2011, his group discovered reversible RNA methylation as a new mechanism of gene expression regulation. His laboratory characterized the RNA m6A methyltransferase complex and several key reader proteins that bind preferentially to m6A-modified RNA and regulate their stability and translation. In 2020, Dr. He's laboratory discovered prevalent m6A methylation on chromatin-associated regulatory RNAs (carRNAs), which regulates chromatin state and global transcription. The reversible methylation of carRNA controls mammalian and plant development. His laboratory has also spearheaded the development of enabling technologies to study the biology of RNA and DNA modifications.



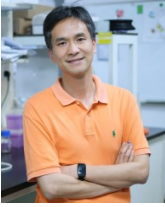
Manyuan Long, Ph.D.  
Edna K Papazian Distinguished Service Professor  
Department of Ecology and Evolution and the College  
The University of Chicago  
Chicago, USA. E -mail: mlong@uchicago.edu

Manyuan Long received B.A. and M.S. in plant genetics and breeding from Sichuan Agricultural University in China in 1982 and 1985 respectively. He attended Graduate School at University of California at Davis in 1987 and received Ph.D. in genetics in 1992. His doctoral research in Charles Langley laboratory led to a discovery of the first evolutionary new gene, Jingwei, starting a new area of gene origination. He continued theoretical and experimental studies as a postdoctoral fellow with Walter Gilbert and Richard Lewontin at Harvard. Manyuan Long joined the University of Chicago faculty as an assistant professor in 1997 and was promoted to Associate Professor with tenure in 2003 and Full Professor with tenure in 2005. He has been the Edna K Papazian Distinguished Service Professor since 2011.

The laboratory led by Manyuan Long has been exploring origination and evolution of new genes using experimental, computational and theoretical approaches. He and his students demonstrated that new gene origination is a general process in organisms, with previously unexpected rates and rules, governing evolutionary origins of cellular and molecular functions, especially, those involved male reproductive processes and brain development. They recently revealed unavoidable imperfection of gene functions and new genes evolved from scratch. He raised several dozens of scientists including professors, investigators and science policy makers.

Manyuan Long won the Allen Mar Prize at UC Davis in 1993, a David and Lucile Packard Fellowship for Science and Engineering in 1998, a CAREER award from NSF in 2003, elected as an AAAS fellow in 2014 and won the Distinguished Investigator Award at University of Chicago in 2020. He was one of three scientists in U.S. and Canada awarded the John Simon Guggenheim Memorial Fellowship for Biology in 2022, with other Guggenheim fellows selected from all scholarship fields of sciences, humanity and arts.

# Young Investigator Award



Chenqi Xu, Ph.D.  
Principle Investigator  
Shanghai Institute of Biochemistry and Cell Biology,  
Chinese Academy of Sciences, Shanghai, China  
E-mail: cqxu@sibcb.ac.cn

Chenqi Xu received his B.S. in Biochemistry at East China Normal University in 1998. He completed his PhD training in protein chemistry with Dr. Chengwu Chi in 2004 at SIBCB. A part of his PhD work was done in University of Leuven and University of Hasselt in Belgium, under supervision of Drs. Jan Tytgat and Emmy Van Kerkhove. He then received postdoctoral training in immunology with Dr. Kai Wucherpfennig at Dana Farber Cancer Institute, Harvard Medical School. In 2009, he moved back to SIBCB to start his independent career. He has been tenured in 2016 and now serves as a deputy director of State Key Laboratory of Molecular Biology.

The Xu lab is interested in understanding fundamental mechanisms of T cell biology under physiological and pathological conditions. He and colleagues illustrate the central role of electrostatic charge in immunoreceptor signaling and develops a new "juxtamembrane electrostatic signaling" model that has general application in transmembrane signaling. The key message is that immunoreceptors, phospholipids, Ca<sup>2+</sup> ions and downstream signaling molecules form spatiotemporal electrostatic networks to regulate receptor conformation, condensation and signaling. They also reveal the importance of cholesterol in antitumor immunity and develop new strategies of cancer immunotherapy that have been successfully licensed out for drug development. His works were selected once for Top 10 Science Breakthroughs of China and twice for Top 10 Life Science Breakthroughs of China.

Chenqi Xu has won many awards, including Young Scientist Award of CAS in 2013, Promega Award for Biochemistry in 2018, Chinese Youth Award of Science and Technology in 2018, and Shanghai Youth Award for Outstanding Contributions to Science and Technology in 2020.



Nan Hao, Ph.D.  
Professor of Molecular Biology and Bioengineering  
Associate Director of Synthetic Biology Institute  
University of California San Diego, CA, USA  
E-mail: nhao@ucsd.edu

Nan Hao received his B.S. degree in Biochemistry from Peking University in China in 2001 and his Ph.D. degree in Biochemistry and Biophysics from University of North Carolina (UNC) at Chapel Hill in 2006. He obtained a postdoctoral training on Computational Biology with Tim Elston at UNC-Chapel Hill and a postdoctoral training on Systems Biology with Erin O'Shea at Harvard University/HHMI. Nan Hao became an Assistant Professor at UCSD in 2013 and was promoted to Associate Professor in 2018 and Full Professor in 2022. He is currently a Professor of Molecular Biology and Bioengineering and Associate Director of Synthetic Biology Institute at UCSD.

The Hao laboratory develops and uses multidisciplinary approaches, integrating high-throughput dynamic measurements with computational modeling, to investigate how molecular networks govern the dynamics and function of regulatory responses to stress, aging, and disease. In recent years, the Hao lab pioneered the use of Systems and Synthetic Biology approaches to investigate the basic mechanisms underlying the aging process. He identified core molecular circuits that govern the progression of single-cell aging trajectories and constructed predictive computational models that guide the rational design of interventional strategies to promote longevity. His recent studies have been published in major journals, including *Science*, *PNAS*, and *eLife*, and have been featured by major news outlets, such as *CNN*, *DailyMail*, and *Fox News*.

# Teaching Award



Guo-Min Li, Ph.D.

Professor and the Reece A. Overcash, Jr. Distinguished Chair for Research on  
Colon Cancer

University of Texas Southwestern Medical Center, TX, USA

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Guo-Min Li received his B.S. degree in 1982 and M.S. degree in 1985 in Biology from Wuhan University in China, and his Ph.D. degree in Chemistry from Wayne State University in Detroit in 1991. He did postdoctoral work with Dr. Paul Modrich at Duke University, and became an Assistant Professor at the University of Kentucky in 1995 and was promoted to Associate Professor in 2000 and Full Professor in 2006. He also held professorship at the University of Southern California from 2015-2016. Since 2017, he has been a professor at UT Southwestern.

Guo-Min Li studies the mechanism of DNA mismatch repair and its roles in cancer susceptibility and therapy. He has made seminal contributions toward understanding the mechanism by which mismatch repair maintains genome stability. He is responsible for identifying and characterizing human mismatch repair components, and eventually reconstituting the human repair system *in vitro*. His lab also discovered the mechanisms of how mismatch repair is regulated at the chromatin context, and how mismatch repair deficiency benefits cancer immunotherapy.

Guo-Min Li has been teaching both graduate and undergraduate courses in China for more than 20 years. He is one of the initial lecturers involved in teaching Bio2000, a graduate course established by CBIS in year 2000 to teach Molecular Biology and Biochemistry in English at the Shanghai Institutes for Biological Sciences, Peking University and Tsinghua University. He has been teaching the course since 2001. In addition, he also taught in many other universities, including Zhiyuan School of Shanghai Jiaotong University, Wuhan University School of Medicine and College of Life Sciences, and the Beijing Institute of Biological Sciences.