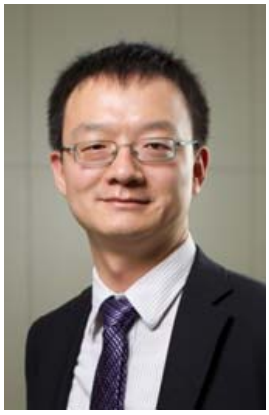
2015 GU XIAOCHENG LECTURE

顾孝诚讲座

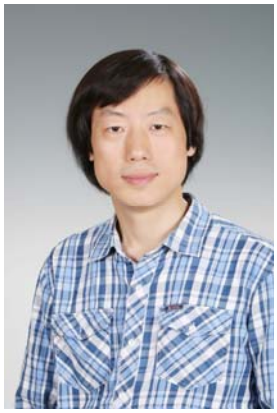
The 2015 GU XIAOCHENG LECTURE is shared by Dr. Liming Wang of Zhejiang University and Dr. Fuchou Tang of Peking University.

The Gu Xiaocheng lecture award was established by the Gu Xiaocheng Memorial Fund in 2012. The lectureship recognizes young investigators showing promises to become future leaders in life science research, especially those who work in China.



Dr. Liming Wang received B.S. from Peking University in 2005, and his Ph.D. from California Institute of Technology in 2011. His graduate work with his mentor Professor David Anderson, on the regulation of social behaviors in fruit flies, laid the cornerstone of this field. After finishing his impressive doctoral training, Dr. Wang skipped postdoctoral training and set up his lab at the University of California, Berkeley as a Bowes Research Fellow and independent Principal Investigator. Dr. Wang joined the faculty at Life Sciences Institute (LSI), Zhejiang University as a Principal Investigator and tenure-track Professor in early 2014. LSI, founded in 2009 as an innovative "Special Academic Zone". He was recruited through the national "Young Thousand Talent Plan".

Dr. Wang and his colleagues started to investigate the regulation of organismal metabolism by the central nervous system. He introduced the concept of foraging (aka "food searching") behavior in hungry flies, and identifying octopamine, the insect counterpart of vertebrate norepinephrine, as the neural substrate underlying this behavior critical for food intake. He is recognized for his outstanding scientific instincts and also for the rare combination of independent thinking and collaborative spirit. He has made a number of breakthroughs as a young scientist. Dr. Wang also has a passion in educating the general public. His stories on leptin, cholesterol regulation and statin drugs, and gene therapy have gained him a very broad readership, especially among the younger generation.



Dr. Fuchou Tang received his Ph.D. degree from Peking University in 2003 and did his postdoc research at University of Cambridge, where he developed single cell microRNA profiling and single cell RNA-Seq transcriptome sequencing techniques, and worked on gene regulation mechanisms of mouse early embryonic development. He was recruited to BIOPIC (Biodynamics Optical Imaging Center), Peking University, as an independent PI in 2010. Being the first to do single cell transcriptome analyses in China, he has established himself as an international leader to study the genetic and epigenetic regulation mechanisms of gene expression network in human early embryos and germ line cells.

His work on gene expression dynamics of human pre-implantation embryos and embryonic stem cells (hESCs) by single-cell RNA-seq analysis is considered a milestone accomplishment. In collaboration with his colleagues, Dr. Tang showed that the MALBAC-based pre-implantation genomic screening (PGS) in *in vitro* fertilization (IVF) enables accurate and cost-effective selection of viable fertilized eggs for embryo transfer. This is the first proof of principle report in the world to show that single cell genome sequencing technology can be used for PGS. Dr. Tang has made several game-changing contributions in the fields of single cell functional genomics and human developmental biology. He is one of the major driving forces in the exciting field of single cell genomics, and his work has brought revolutionary changes to medical practice, bringing new reality to families with genetic disorders.