



香港城市大學  
City University of Hong Kong

## City University Distinguished Lecture Series

Speaker

### Professor Xuemei Chen

*Professor of Plant Cell and Molecular Biology,  
Department of Botany and Plant Sciences, University of California, Riverside  
HHMI-GBMF Investigator  
Member of National Academy of Sciences U.S.A.*



## Biogenesis and activities of plant microRNAs – the “where” and “how”

on

Tuesday, 19 December 2017 at 11:00 am

at

Connie Fan Multi-media Conference Room  
4/F Cheng Yick-chi Building  
City University of Hong Kong  
Tat Chee Avenue, Kowloon

### *Abstract*

Small RNAs (miRNAs and siRNAs) are sequence-specific regulators of gene expression and genome stability. Our research aims to understand how small RNAs are made and degraded, how miRNAs repress target gene expression, and how miRNAs move from cell to cell. We found that miRNA-mediated translation repression requires the integral ER membrane protein AMP1, suggesting that miRNAs act on the rough ER. This prompted us to examine the subcellular partitioning of small RNAs, messenger RNAs, and Argonaute proteins between the membrane and cytosolic fractions. Professor Chen will talk about how miRNAs become associated with membranes and membrane-bound polysomes (MBPs), and how their MBP association affects their ability to trigger the production of secondary siRNAs from so-called noncoding transcripts. Professor Chen will talk about recent studies that increasingly point to a role of translation in the production of endogenous siRNAs from so-called noncoding transcripts.

### *Biographical Sketch*

Professor Xuemei Chen graduated with her B.S. degree from Peking University in 1988, and was selected to participate in the CUSBEA (China-US Biology Examinations and Admissions) program that provided opportunities for Chinese students to pursue Ph.D. studies in US institutions. She received a doctorate from Cornell University in 1995. After postdoctoral training from 1995 to 1998 at California Institute of Technology, she started her assistant professor position in 1999 at the Waksman Institute at Rutgers University. She was promoted to associate professor in 2005 and won the Board of Trustees Research Fellowship for Scholarly Excellence at Rutgers University. She moved to University of California, Riverside in 2005 as an associate professor and was promoted to full professor in 2009 and distinguished professor in 2013. In 2006, she received the prestigious Charles Albert Shull award from American Society of Plant Biologists. In 2011, she was elected an AAAS Fellow. In the same year, she was selected to be an HHMI-GBMF investigator. In 2013, she was elected into the US National Academy of Sciences.

Online registration:  
<http://www.cityu.edu.hk/vprt/cityu-dls/upcoming.htm>

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