



THE CHINESE UNIVERSITY OF HONG KONG  
SCHOOL OF LIFE SCIENCES

## LIFE SCIENCES SEMINAR SERIES 2013 - 2014

*Life Sciences Seminar is a seminar series aiming to provide up-to-date research ideas and experimental approaches to graduate students in the School*

### Tissue specific hormone response and epigenome reprogramming

*by*

Professor Zhong Silin  
Assistant Professor  
School of Life Sciences  
The Chinese University of Hong Kong

*on*

24 September 2013  
(Tuesday)

*at*

12:30 – 1:15 pm

*at*

L1, Science Centre  
The Chinese University of Hong Kong

*ALL ARE WELCOME*

Ethylene regulates many aspects of the plant life cycle and its biosynthesis and signaling pathways have been well characterized. However, little is known about how ethylene causes these distinct physiological responses in different tissues or even in the same tissue at different developmental stages. We adopted a systematic approach to investigate how ethylene signaling changes during tomato plant growth and development. We first compared ethylene responsive genes in different tissues using RNA-seq, identified the ethylene transcription factor binding sites using ChIP-Seq and profile the tomato methylome at different tissues using BS-Seq. We found that transcription factor bindings are not constant during development, and their tissue specific activities are associated with specific DNA methylation changes, suggesting a possible role of epigenetic factors in shaping tissue-specific hormone signaling network.