

Using Flipped Classroom with Recent Research **Discovery to Enhance Interactive Teaching and** Learning in Protein Trafficking

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Summary

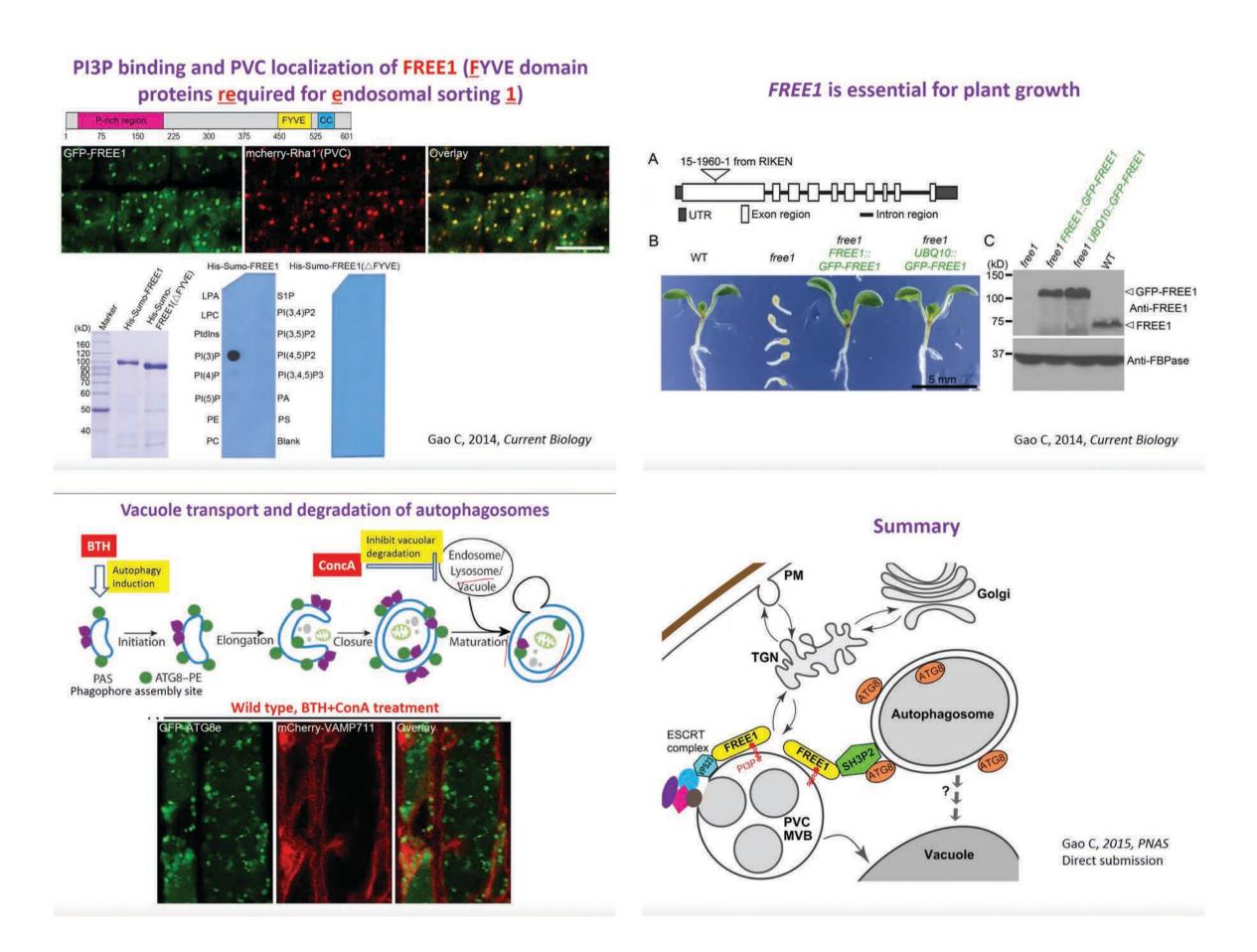
This project aims at developing micro-modules from our recent research findings published in prestigious international journals that are related to protein trafficking for the students taking the course CMBI4001 Protein Trafficking. Prof. Jiang coordinated with the first authors to produce online teaching videos explaining the background information and the research data in the publications.



Self-learning Videos

this project, 18 micro-modules have already been In generated. They covered a variety of research findings related to protein trafficking. Exampes are included as below:

A. FREE1: a magic plant protein

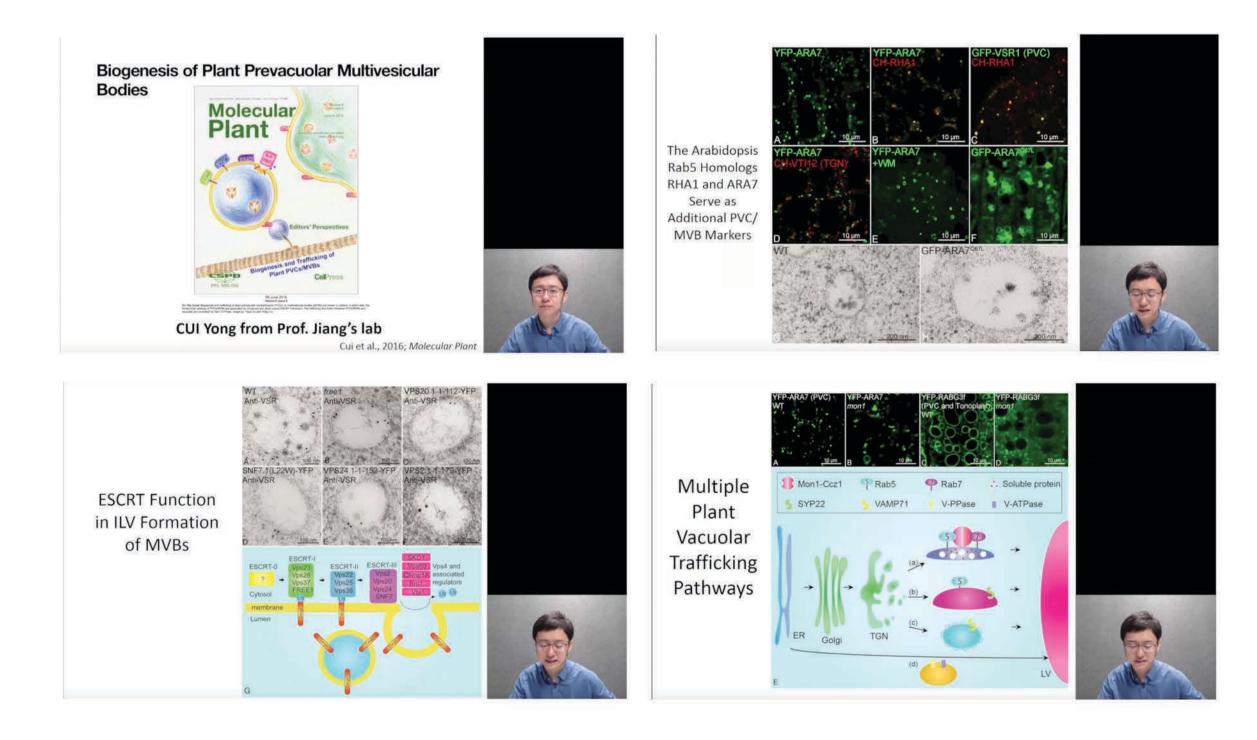


Prof. Jiang and first authors of protein trafficking-related publications having discussion on experimental findings

Online Learning Platform

The teaching videos and the related publications have been uploaded to the KEEP online platform for students taking CMBI4001 to view before lectures. During the lecture time, students who have already gained understandings about the research publications can have more intensive and deep discussion regarding the current developments in protein trafficking. The videos were also uploaded to a public-accessible website to share the eLearning resource to other students in CUHK or from other institutions who are interested in the topics.

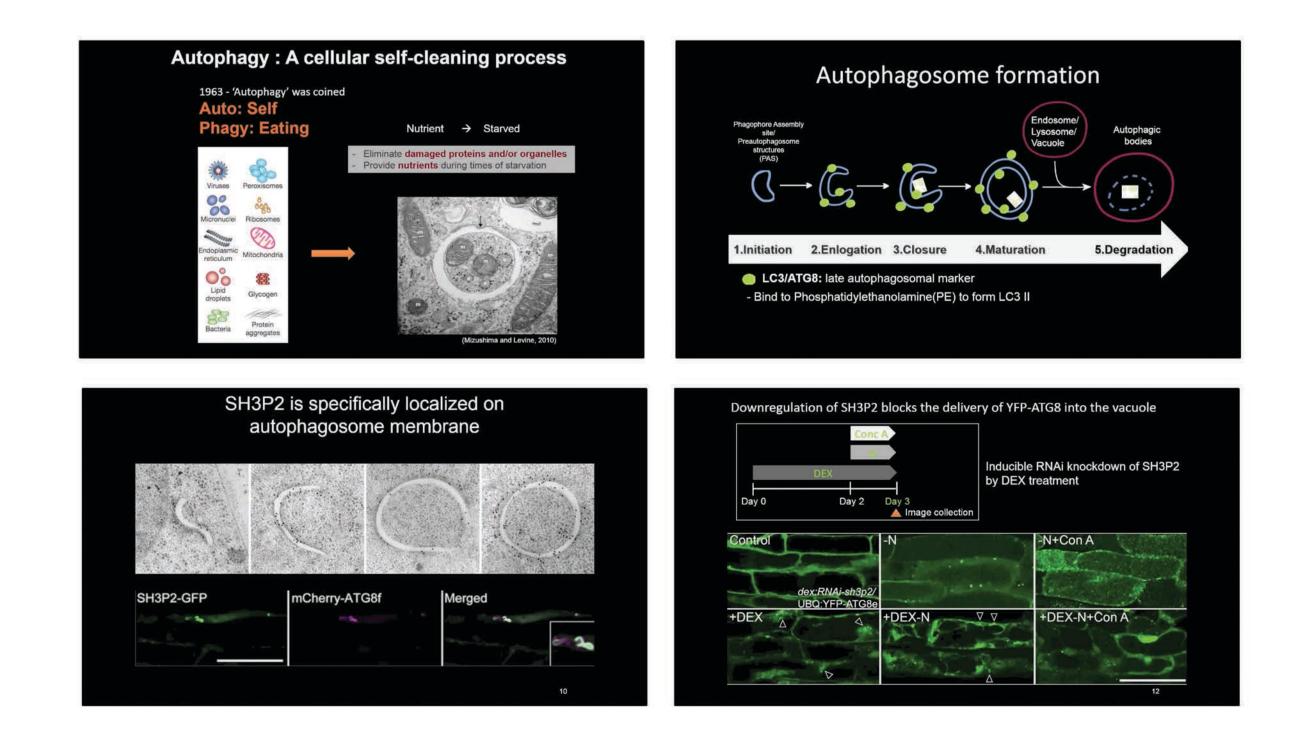
B. Activation of the Rab7 GTPase by the MON1-CCZ1 **Complex is Essential for PVC-to-Vacuole Trafficking and** Plant Growth in Arabidopsis



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Sec12 Sar1-GDI	Biogenesis of (membrane cargo Sec23/24	COPII Vesicle (4 s sec13/31	(iv) Vesicle bud	dding		0:00/3:10 •) [3]

Interface of the KEEP online platform and public-accessible website

C. A BAR-Domain Protein SH3P2, Which Binds to Phosphatidylinositol 3-Phosphate and ATG8, Regulates Autophagosome Formation in Arabidopsis



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