



# Zoom-KEEP eLearning, Discussion and Assessment Platform for CMBI4001/LSCI5601

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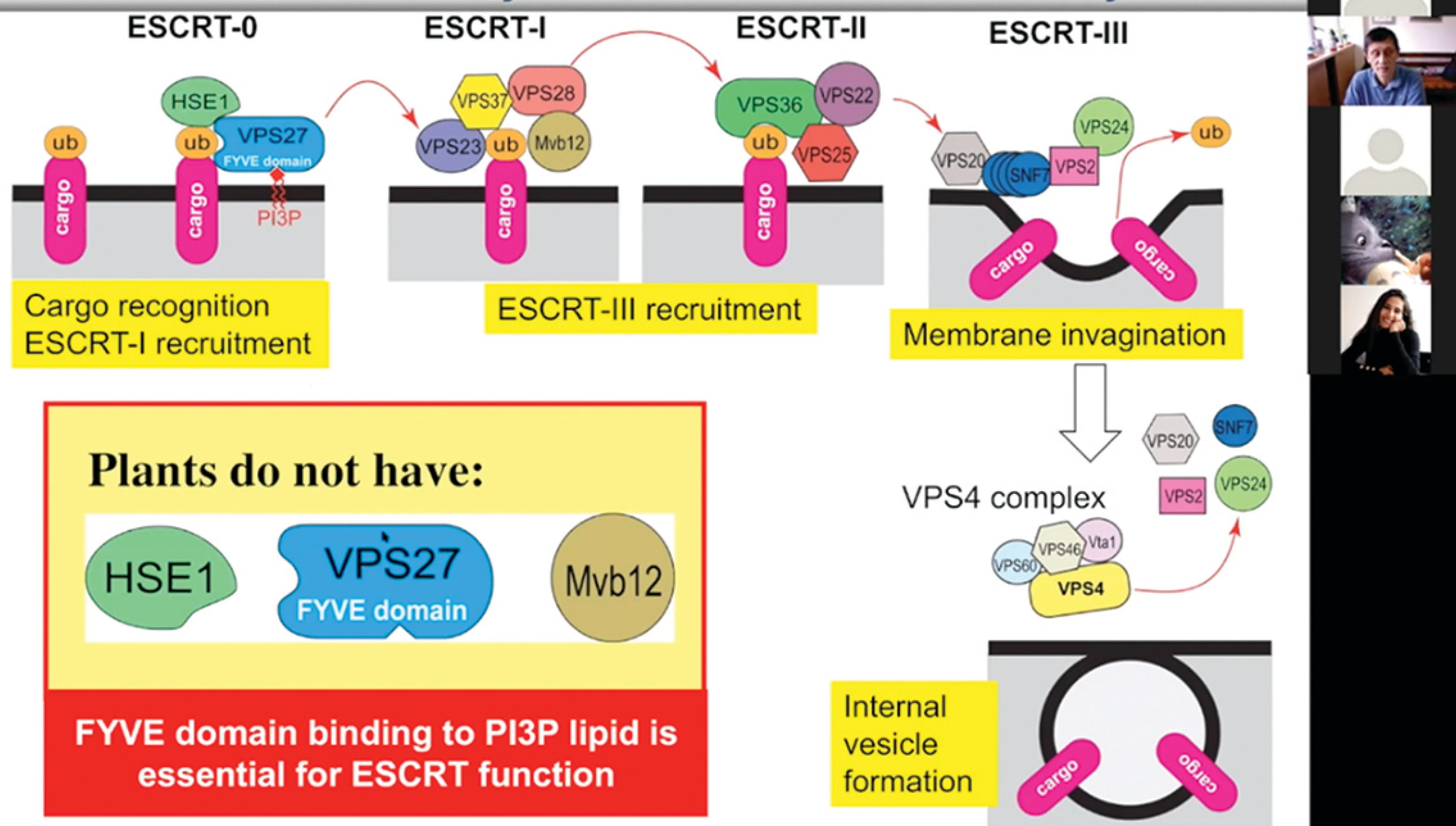
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## Integrated Zoom Lectures

CMBI4001/LSCI5601 Protein Trafficking is an one-credit double-coded course designed for senior undergraduate students and postgraduate students. In the first term of 2020-2021, Prof. Jiang has delivered the whole course in an online mode via Zoom for the first time. In this project we aimed to develop an integrated/interactive Zoom eLearning, discussion and assessment platform with various simulating components to help students to adapt to the new teaching mode and to be better engaged in the eLearning.

### ESCRT machinery & MVB formation in yeast



## Simulating Components

### 1. Discussion Time in Every Lecture

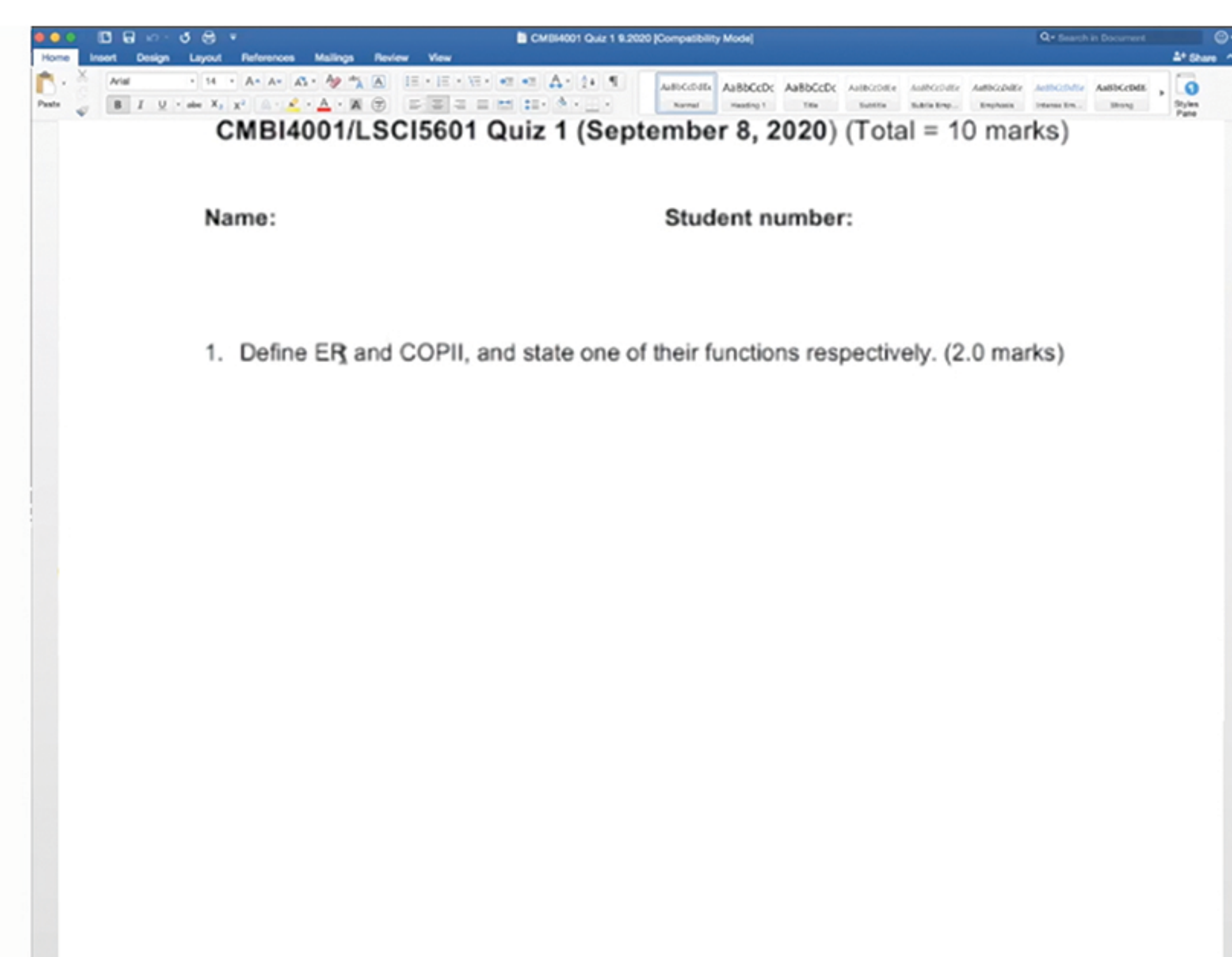
We arranged breakout rooms in Zoom lectures for more efficient small group discussion. We also assigned discussion mark to students in order to encourage them to discuss and interact.

AtNBR1 is a **Selective** autophagy Receptor?

- Single cargo (E2 or EXPO)?
- Other cargos? How to identify?
- Inducible? (stress and environmental factors?)
- Cargo-receptor binding mechanisms?
- Other Receptors? How to identify?
- Multiple receptors, cargos and mechanisms?

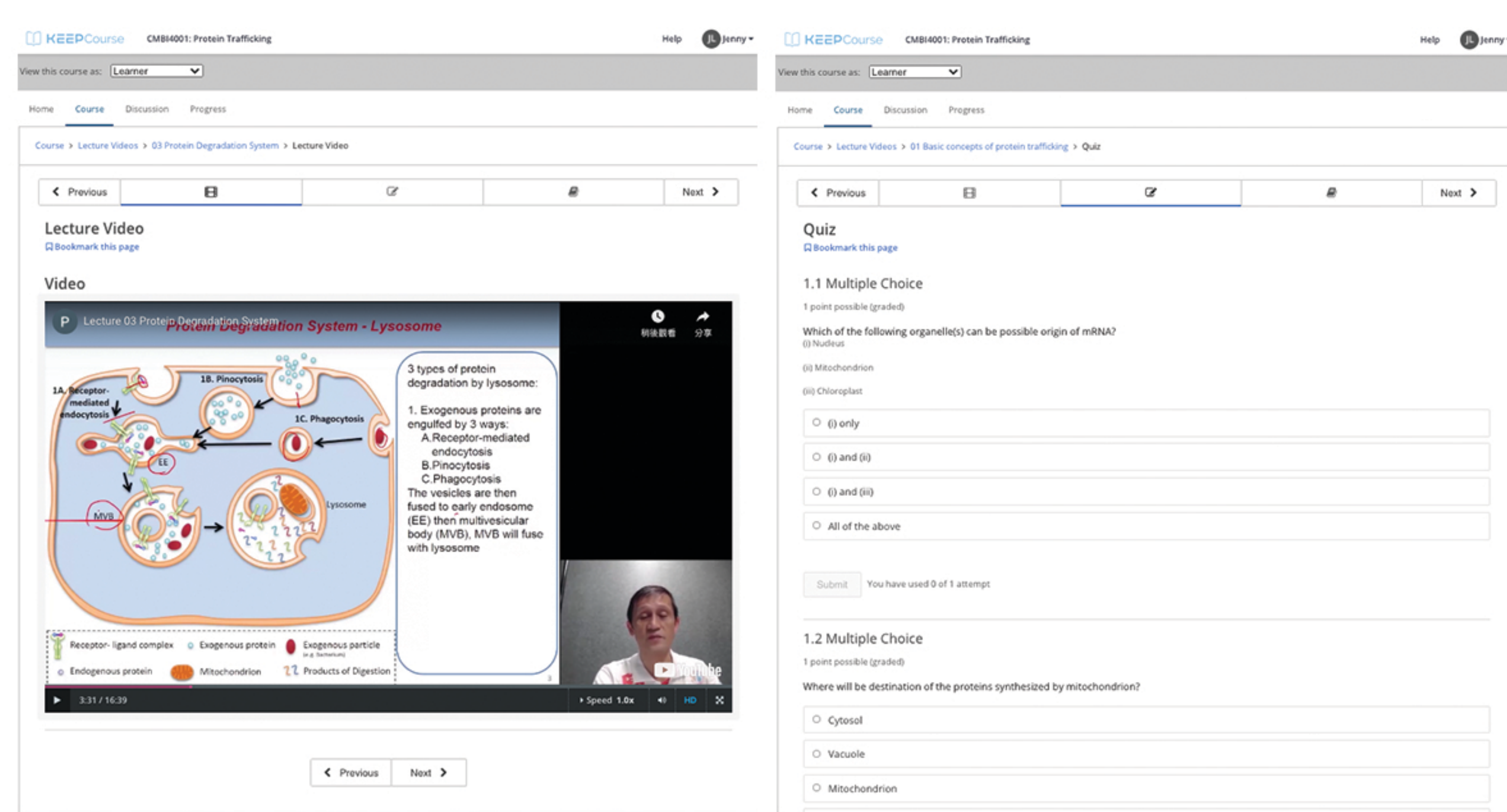
### 2. In-Class Quiz

To ensure high attendance rate of the students, we showed the in-class quiz questions to students during the Zoom lectures and asked students to submit the answers in limited time.



## Zoom-KEEP Platform

We have developed a flipped classroom on the KEEP Platform with online videos and quizzes to enhance self-learning in protein trafficking. We required students to watch the videos and finish the quizzes on KEEP before the Zoom lectures, so that they could have a basic knowledge of the lecture content prior to the Zoom lectures. The videos included Lecture Videos which explain scientific knowledge in protein trafficking and Publication Videos which illustrate the latest publications of related topics.



Interface of the KEEP online platform including lecture video and online quiz

### 3. Presentation and Discussion

Students were asked to share their PowerPoint and present on Zoom. Advanced Zoom functions (e.g. breakout room group discussion and real time annotation) were adopted to increase discussion after the presentations.

