

## FIRST PERSON

## SPECIAL ISSUE: CELL BIOLOGY OF LIPIDS

# First person – Kazuhiro Kajiwara

First Person is a series of interviews with the first authors of a selection of papers published in Journal of Cell Science, helping early-career researchers promote themselves alongside their papers. Kazuhiro Kajiwara is first author on 'Ferroptosis induces membrane blebbing in placental trophoblasts', published in JCS. Kazuhiro undertook this study in the lab of Yoel Sadovsky, University of Pittsburgh, Pittsburgh, USA, where he works on functional analysis of ferroptosis in trophoblasts.

### How would you explain the main findings of your paper in lay terms?

We surmised that the human placenta might be prone to ferroptosis, and aimed to ascertain any unique features of ferroptosis in trophoblasts. We found that trophoblasts are not only susceptible to ferroptosis, but also produce characteristic balloon-like blebbing during the ferroptotic process. We examined the role of this interesting ghost-like structure.

### Were there any specific challenges associated with this project? If so, how did you overcome them?

As the blebs are very delicate, they 'vanished' by simply PBS-washing the culture dish. Therefore, it was difficult to collect and analyze blebs. However, we were able to analyze them using live-cell imaging and ipGel technology.

### When doing the research, did you have a particular result or 'eureka' moment that has stuck with you?

When I imagined that ferroptotic blebs were formed by placental trophoblasts.

### Why did you choose Journal of Cell Science for your paper?

We chose JCS because the journal publishes some really great science.

### Have you had any significant mentors who have helped you beyond supervision in the lab? How was their guidance special?

In addition to my mentor, Yoel Sadovsky, Ofer Beharier, a coauthor, was always sincere about providing guidance. I consider him to be a great friend.

### What motivated you to pursue a career in science, and what have been the most interesting moments on the path that led you to where you are now?

It was my respected supervisor who encouraged me to pursue science. I am highly motivated by questions, experiments and exciting results.

### Who are your role models in science? Why?

Yoel Sadovsky is the ideal research mentor for me. I am an obstetrician, but I love basic research because it is essential to improve medical care. I believe that we always need to consider

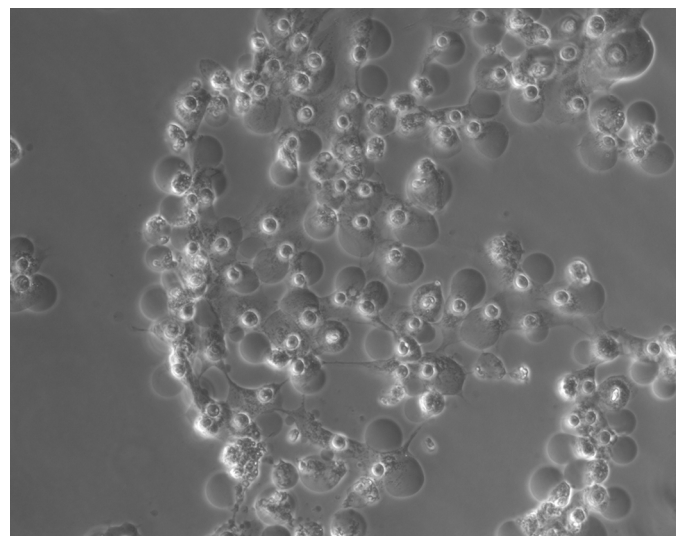


Kazuhiro Kajiwara

clinical progress doing research. Yoel is always inspired by clinical questions to drive new discoveries.

### What's next for you?

I am planning to analyze ferroptosis in the human placenta, because I believe that this is a new field of research that has great potential for discovery.



Representative blebs derived from BeWo cells.

**Tell us something interesting about yourself that wouldn't be on your CV**

My hobby is martial arts, and I used to be a professional boxer.

**Reference**

Kajiwara, K., Beharier, O., Chng, C.-P., Goff, J. P., Ouyang, Y., St Croix, C. M., Huang, C., Kagan, V. E., Hsia, K. J. and Sadovsky, Y. (2022). Ferroptosis induces membrane blebbing in placental trophoblasts. *J. Cell Sci.* **135**, jcs255737. doi:10.1242/jcs.255737