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FIRST PERSON

First person – Anne Janssen

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. Anne Janssen is first author on 'Direct observation of aggregate-triggered selective autophagy in human cells', published in JCS. Anne conducted the research described in this article while a PhD student in Lukas Kapitein's lab at Division of Cell Biology, Neurobiology and Biophysics, Department of Biology, Faculty of Science, Utrecht University, Padualaan 8, 3584 CH, Utrecht, The Netherlands. She is now a FEBS long-term fellow in the lab of Delphine Larrieu at Cambridge Institute for Medical Research, Cambridge, UK, where she is currently interested in the nuclear envelope and how problems in maintaining nuclear integrity can cause human disease.

Anne Janssen

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

In this work, we describe a new tool that allows us to make little clumps of protein in the cell. These little clumps or aggregates are undesirable, and can be detrimental to cellular health. Therefore, cells want to take them apart or degrade them in a process called autophagy. Using microscopy, we can now visualize how the cell degrades these aggregates and follow the different steps that are necessary for this process. This tool will help us to understand which specific steps are involved in the degradation of aggregates and how this can go wrong in different human diseases.

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

Yes, finishing the project and making it ready for publication was challenging. I had already moved for my postdoc when this project, which was part of my PhD work, still needed some additional experiments. Then the COVID pandemic started, so it took quite a while to get everything sorted. Luckily Giel, the PhD student who took over my projects, quickly became familiar with all the techniques and helped with bringing the project to completion. The communication was great which really helped getting everything together for publication!

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

I remember for the first time seeing an mKeima PIM aggregate being enveloped by an autophagic membrane and thinking, "wow this is really cool!".

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

I like papers that are published in JCS; they usually have a clear message, are well readable but still concise. JCS has also published many interesting papers in the field of autophagy and aggregation, and therefore we felt our paper would fit in well. We haven't regretted our decision of submitting here as the review process went very smoothly, and I am proud this work is now published!

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

Many mentors come to mind! First of all my former PI Lukas Kapitein, who with his innumerable ideas can only make you love science. He taught me how to think about data, how to write a story and that every observation can be important. Wilco Nijenhuis, who was a postdoc in the lab, was my personal wiki-page. Sitting next to me in the lab, he could answer any question I could think of. He taught me how to design experiments and look critically at my results. Finally, my current PI Delphine Larrieu is really helping me with thinking about what steps I need to take in order to become fully independent in my research.

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?

I just love what I do; thinking about experiments and projects is like solving one big puzzle. I love working at the bench but also thinking about what the results are telling me and what I should do next. I think the most interesting thing to me is how little conversations, small observations in your work or hearing from another scientist can really change your research direction or interest. During my

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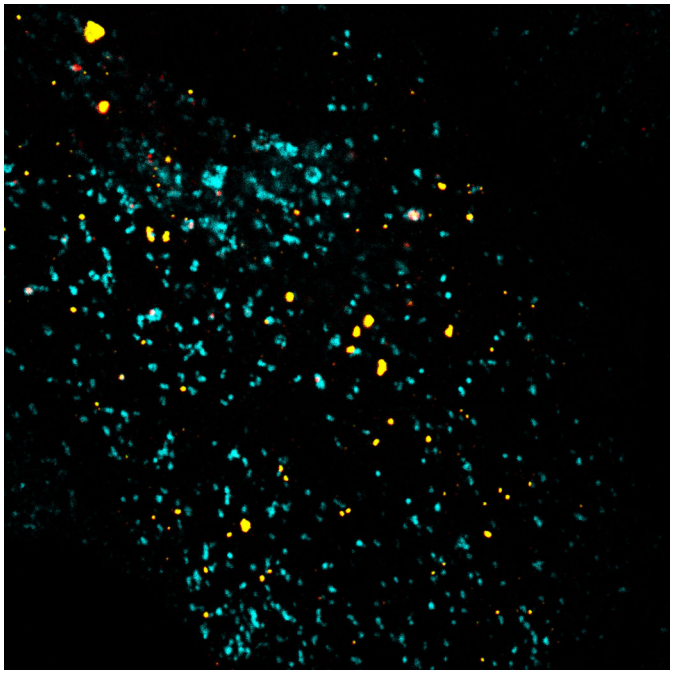

Degradation of PIM aggregates by autophagy. Red, aggregate in acidic pH environment; green, aggregate in neutral pH environment; cyan, lysosomes.

PhD, I got interested in the nucleus, which wasn't what I was working on at that moment, but it did lead me to my current postdoc position.

Who are your role models in science? Why?

I don't have a particular role model. I admire scientists who are passionate and enthusiastic about their work, are great mentors and can really motivate and inspire their group members.

What's next for you?

I am currently in my first postdoc in the lab of Delphine Larrieu at CIMR in Cambridge working on the nuclear envelope. I am learning a lot as I am working on a different topic than during my PhD, and after a slow start I am now really feeling like my project is going in the right direction.

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

My partner and I brew our own beer. The next beer we are planning to brew is an elderflower blonde beer in which we use elderflowers from the garden of one of my co-workers!

Reference

Janssen, A. F. J., Korsten, G., Nijenhuis, W., Katrukha, E. A. and Kapitein, L. C. (2021). Direct observation of aggregate-triggered selective autophagy in human cells. *J. Cell Sci.* **134**, jcs258824. doi:10.1242/jcs.258824