

## FIRST PERSON

# First person – Ana Nascimento

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. Ana Nascimento is the first author on 'KIF13A mediates trafficking of influenza A virus ribonucleoproteins', published in Journal of Cell Science. Ana conducted the work in this article in Maria João Amorim's lab at the Instituto Gulbenkian de Ciência, Portugal. She is now a PhD student in the lab of Beate Sodeik at the Institute of Virology at Hannover Medical School, investigating host–pathogen interactions, particularly involving viruses.

### How would you explain the main findings of your paper to non-scientific family and friends?

An interesting aspect of the assembly of new virus particles when they replicate within the cells of a host is that despite the components being produced and/or processed in different parts of the cell, they must converge to the same location for assembly. This means that the processes by which components are transported to assembly sites is an important part of virus particle formation. In this paper we identify a molecular motor that is responsible for carrying the viral genome of influenza A virus (IAV) to the cell membrane, where the virus particle is formed.

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

Antibody labelling of KIF13a at endogenous levels was not detectable, so we resorted to the typical GFP-tagged overexpressed alternative. However, KIF13a is a large protein and cloning it was a major challenge. Additionally, establishing cell lines expressing the tagged protein took some time and patience.

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

The moment we visualized cells infected with IAV that expressed GFP-tagged KIF13a and were additionally stained for the viral protein NP (as a proxy of the viral genome). Our images (see below) clearly showed that the viral genome formed strings overlapping with KIF13a; the impression of 'pulling' was amazing – a picture is worth a thousand words.

### Have you had any significant mentors, and how have they helped you?

Dr Maria João Amorim went beyond the 'knowledge transfer' duty of a supervisor – as with children, leading by example is most effective. She was key to turning my interest in research into a real drive. Also, her advice and support never lacked enthusiasm.

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Ana Nascimento

### What's the most important piece of advice you would give first-year PhD students?

As a PhD student myself, I find it helpful every so often to pull back from the detailed troubleshooting of everyday lab life and put the work into perspective. Then, re-evaluate your to-do list – priorities change all the time.

**“...every so often...pull back from the detailed troubleshooting of everyday lab life and put the work into perspective.”**

### What changes do you think could improve the professional lives of early-career scientists?

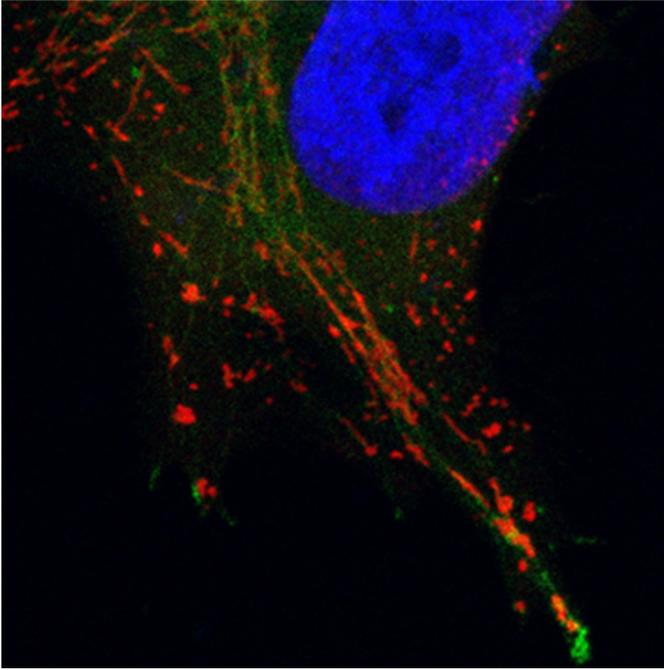
I look at a scientific career, and basic research in particular, as quite an uncertain journey. As liberating as it can be, it has a hugely overlooked downside of a lack of job security for professionals. In my opinion, providing structure wouldn't necessarily compromise the profession's flexibility and could lead to much better science.

### What's next for you?

Science, for sure. Wherever the setting might be, once a scientist, always a scientist.

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

I love a good pun and I punish my friends by always sharing new ones with them.



Cell infected with influenza A virus expressing GFP-tagged KIF13a (green) and viral protein NP (proxy for viral genome, in red). Nucleus is blue.

#### Reference

Ramos-Nascimento, A., Kellen, B., Ferreira, F., Alenquer, M., Vale-Costa, S., Raposo, G., Delevoeye, C. and Amorim, M. J. (2017). KIF13A mediates trafficking of influenza A virus ribonucleoproteins. *J. Cell Sci.* **130**, 4038–4050.