

FIRST PERSON

First person – Ezgi Odabasi

First Person is a series of interviews with the first authors of a selection of papers published in Journal of Cell Science, helping researchers promote themselves alongside their papers. Ezgi Odabasi is first author on 'CCDC66 regulates primary cilium length and signaling via interactions with transition zone and axonemal proteins', published in JCS. Ezgi is a postdoc in the lab of Elif Nur Firat-Karalar at Koç University, Istanbul, Turkey, investigating regulation of centrosome or cilium complex by centriolar satellites.

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

Cells have an antenna-like structure, called the primary cilium, for communication with each other and the environment. The primary cilium is in a complex with other structures called the centrosome and centriolar satellites. Defects in the function and structure of this complex lead to diseases called ciliopathies. In order to understand the regulation of this complex, we worked on a protein, CCDC66, which localizes to all members of this complex; the primary cilium, centrosome and centriolar satellites. Here, we showed that CCDC66 is important to regulate the length and function of the primary cilium by interacting with other ciliopathy-related proteins in these processes.

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

Performing live-cell imaging with RPE1 stable cell lines to observe ciliogenesis dynamics was pretty challenging. We intensively worked on imaging conditions. Once we figured it out, we got exciting results.

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

I had one eureka moment during the research process of this paper; the moment we observed dynamics of pools of centriolar satellites and primary cilia during ciliogenesis. This phenomena of CCDC66 enlightens the relationship between centriolar satellites and primary cilia.

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

Journal of Cell Science is a respectful journal that is publishing important papers in centrosome and cilium biology. I am happy to see that this paper is published by Journal of Cell Science.

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

My PhD and current supervisor Elif Nur Firat-Karalar was a great mentor for me during both my PhD and postdoc studies. Apart from learning how to perform experiments and conduct a project, I am



Ezgi Odabasi

still learning from her how important being resilient and persistent is in science.

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 pursued a career in science because I enjoy understanding biology by visualizing the concept in my head. When my secondary school science teacher was talking about cells in the classroom, I was always seeing myself in a giant cell, trying to understand how things work in a cell. When I was a child, I pictured myself in front of a microscope in the future. This feature of mine drew me to study molecular biology and genetics and then do a PhD in cell biology. I am still understanding the concepts in cell biology in the same way; however, this time not just by imagination, but with great microscopes.

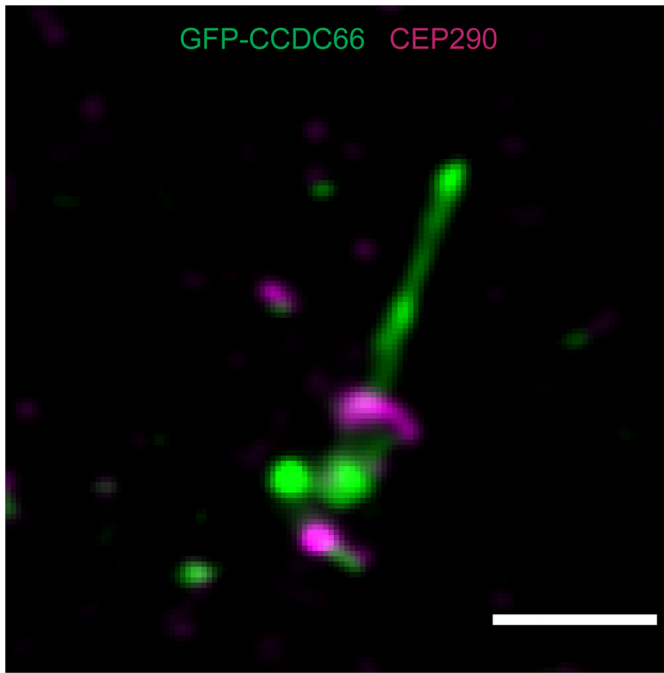
Who are your role models in science? Why?

My first role model was Marie Curie. When I was a child, I was very impressed by her life story and how she dealt with the masculine-dominated science world as a woman. I decided to become a scientist back in that time. My other role model is my supervisor, Elif Nur Firat-Karalar. She has been an amazing mentor for me during my scientific career. Both of these amazing women are great examples for young girls who want to embark on a journey to be a scientist.

What's next for you?

My short-term goal is to complete my postdoc with several projects that I am currently working on. Then, I want to establish my own research group in a research university or institute to ask interesting questions on the dynamics of cellular processes.

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Ciliary localization of GFP-CCDC66 and transition zone protein CEP290 captured with SIM microscopy.

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

I like to look to the world behind lenses. I am using lenses of the microscopes in the lab. I am using my cameras outside of the lab. Hence, I think I am addicted to lenses.

Reference

Odabasi, E., Conkar, D., Deretic, J., Batman, U., Frikstad, K.-A. M., Patzke, S. and Firat-Karalar, E. N. (2023). CCDC66 regulates primary cilium length and signaling via interactions with transition zone and axonemal proteins. *J. Cell Sci.* 136, jcs260327. doi:10.1242/jcs.260327