

FIRST PERSON

First person – Amer Al Khatib

First person is a series of interviews with the first authors of a selection of papers published in Biology Open, helping early-career researchers promote themselves alongside their papers. Amer Al Khatib is first author on ‘Specific expression and function of the *Six3 optix* in *Drosophila* serially homologous organs’, published in BiO. He spent time in Fernando Casares’ lab at the CABD (Andalusian Centre for Developmental Biology) in Seville, Spain, through the Erasmus program, where he worked on the role of *optix* gene expression in organ development.

What is your scientific background and the general focus of your lab?

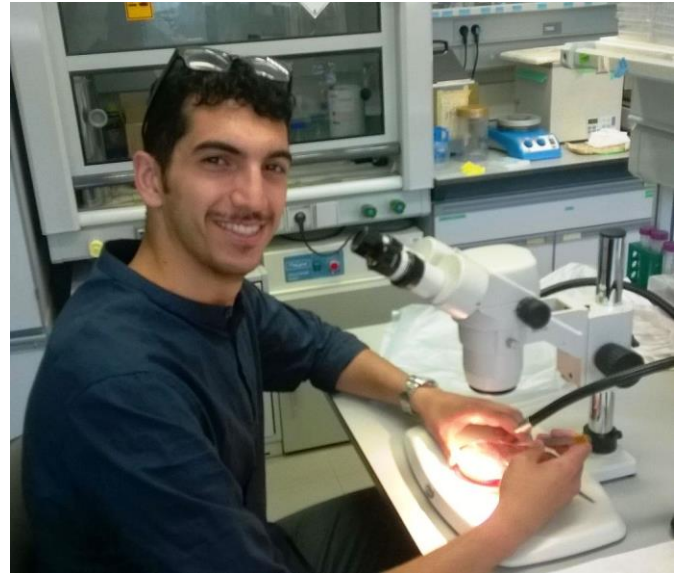
I have a degree in biology from the University of Florence with a major in cellular and molecular biology. Thanks to the European program Erasmus, I arrived in the Fernando Casares lab at the CABD in Seville. The Casares lab mainly investigates the development mechanisms through which organs reach their final shape and identity, mainly working with *Drosophila* eyes and wings.

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

During organ development, cells are called to integrate many pieces of information concerning their position and identity. This information includes a Hox code, a global positioning system that define a cell’s location along the head-to-tail body axis, and more local positioning systems which convey positional information at smaller scales. The result of this information integration is the activation of specific sets of genes at defined positions within an organ. In our work, we’ve studied one of these activated genes called *optix*, giving further insight into its function and regulation mechanisms during the wing and haltere development of the fruit fly. Furthermore, we showed that *optix* expression is conserved in other insects.



The Casares lab use *Drosophila* eye and wing development to investigate the mechanisms through which organs reach their final shape and identity.



Amer Al Khatib at the microscope.

“You can often read about how communication is key, but you won’t fully realize it until you’ve lived the experience.”

What has surprised you the most while conducting your research?

I was impressed by the fact that in science you start your research looking for an answer but you end up always finding new ones; luckily they’re all stimulating. Another thing which has impressed me and was very helpful is the importance of communication in my team. You can often read about how communication is key, but you won’t fully realize it until you’ve lived the experience.

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

Starting a scientific career can be difficult at the beginning because if you want to commit to research you must be willing to sacrifice many things, especially in terms of time. You will end up spending many hours every day in the lab or working at the computer at home, taking a break now and then with a cup of coffee and a great TV show. For this reason, I think that it’s fundamental for the young scientist to be as encouraged and inspired as possible. Having a great mentor would be surely ideal but other important contributions could be participation in workshops, seminars and sharing opinions and ideas with peers and colleagues.

Furthermore, once you finish university you are hungry and ready to chew bread and science daily but you could encounter a few difficulties while looking for a research project; you must be ready to arm yourself with patience and never lose your willpower!

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What's next for you?

I would like to continue my scientific career working with insects, they fascinate me! I'm looking for some opportunity in Tuscany, where I live. In the meantime I got married!

Reference

Al Khatib, A., Siomava, N., Iannini, A., Posnien, N. and Casares, F. (2017). Specific expression and function of the Six3 *optix* in *Drosophila* serially homologous organs. *Biol. Open* **6**, doi: 10.1242/bio.023606.