

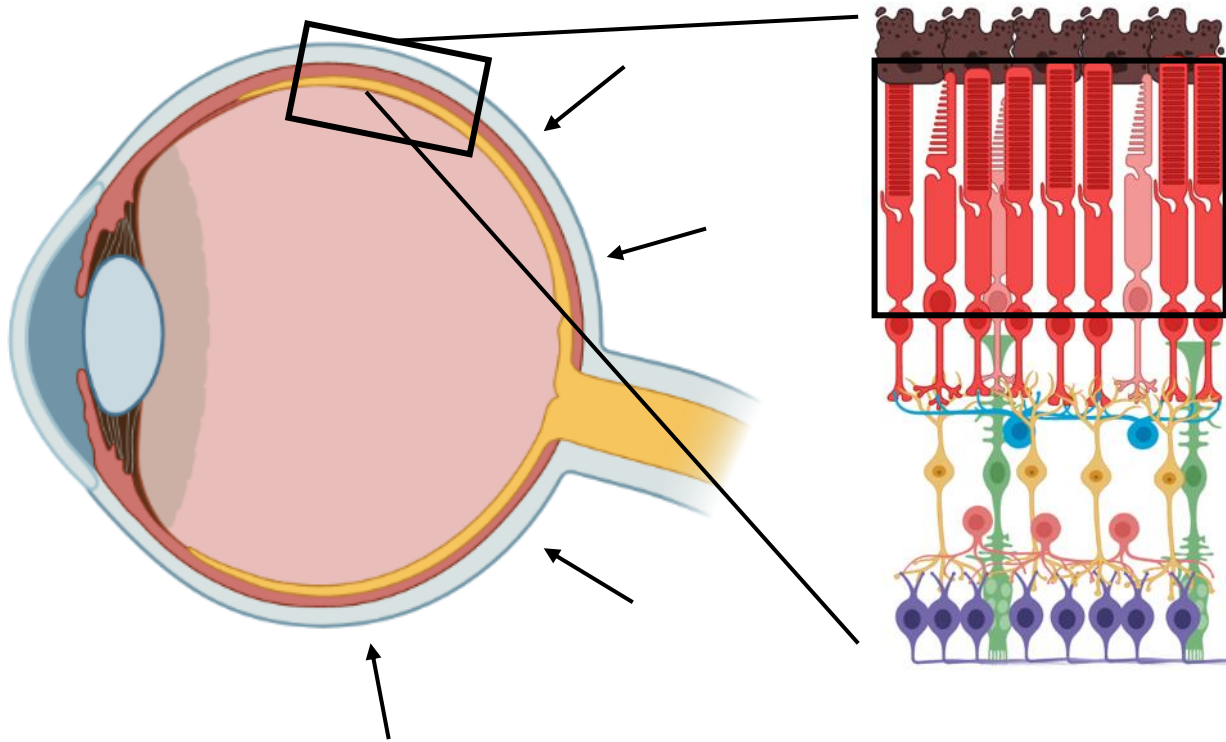
# Consequences of Her9 mutation on photoreceptor ultrastructure

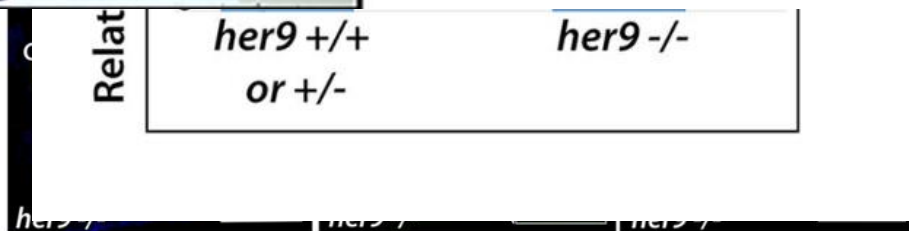
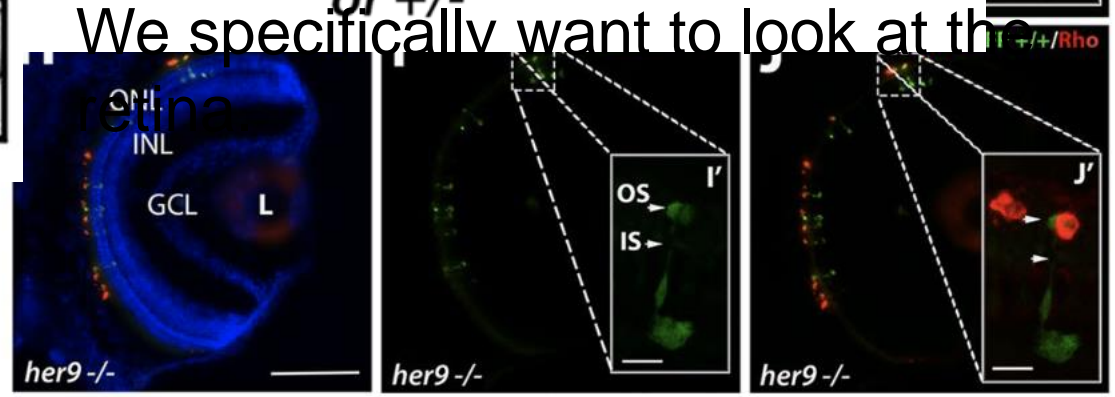
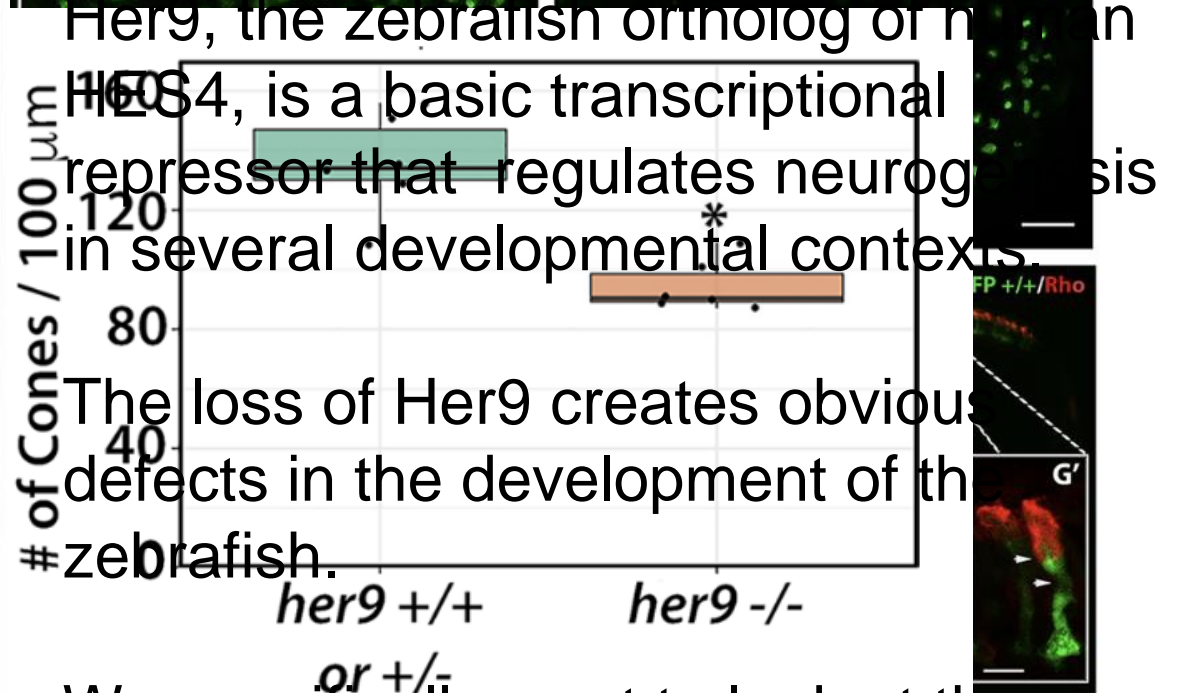
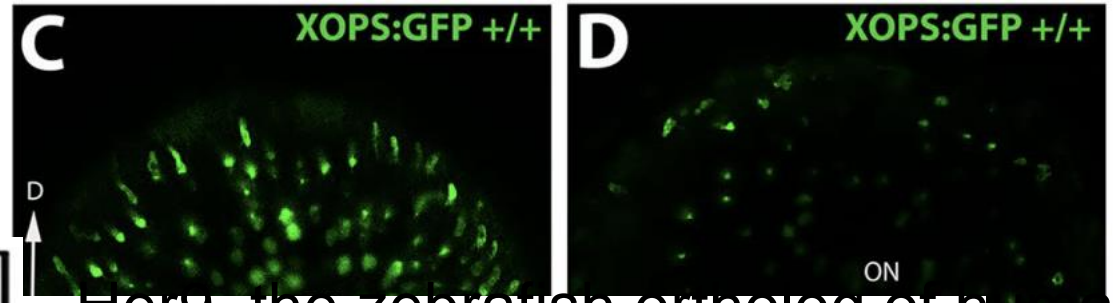
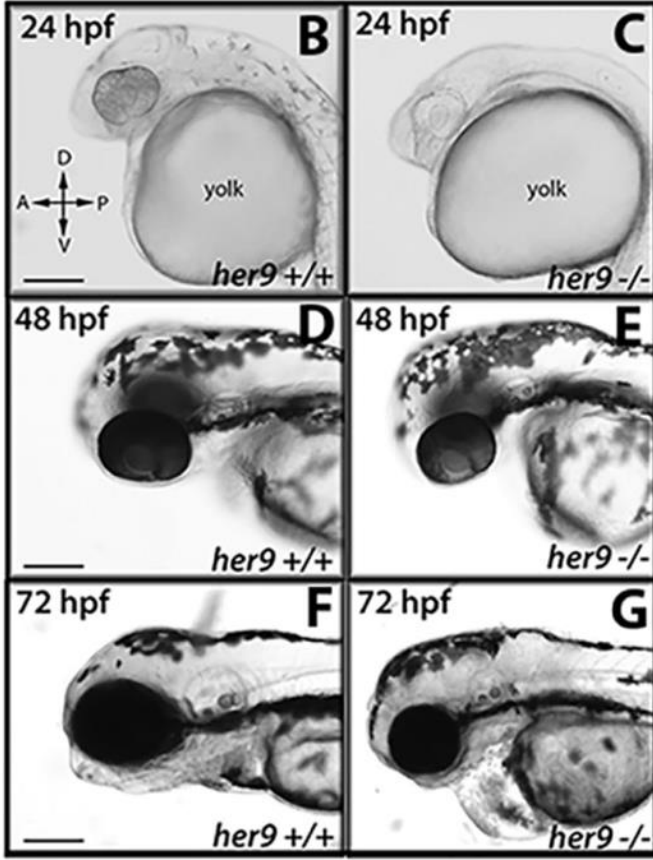
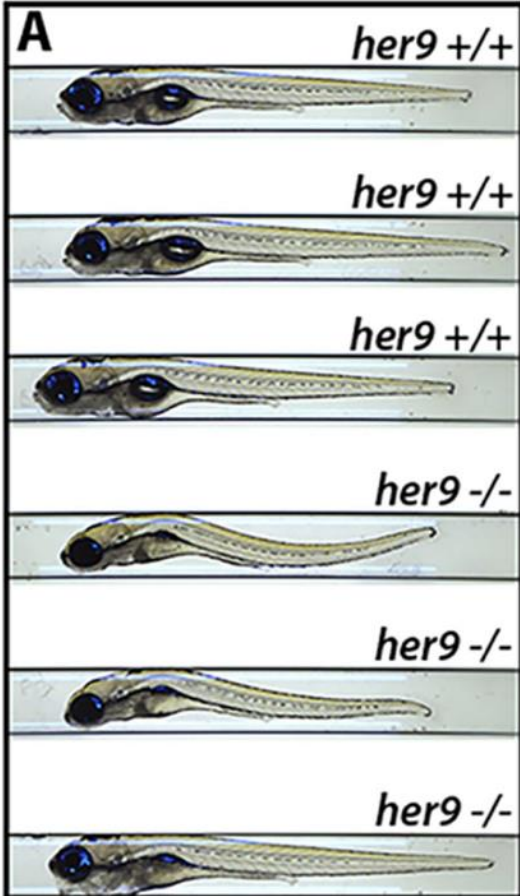
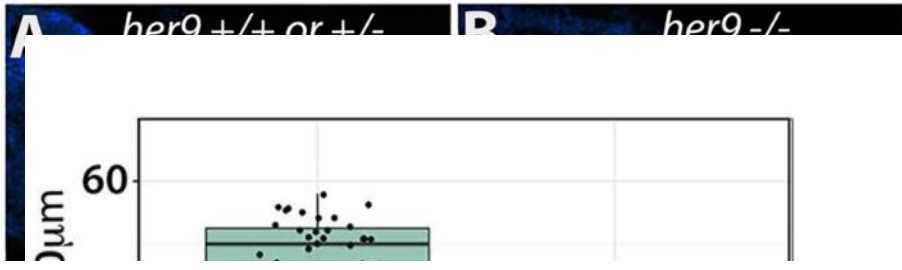
Jess Bills

Ann C. Morris

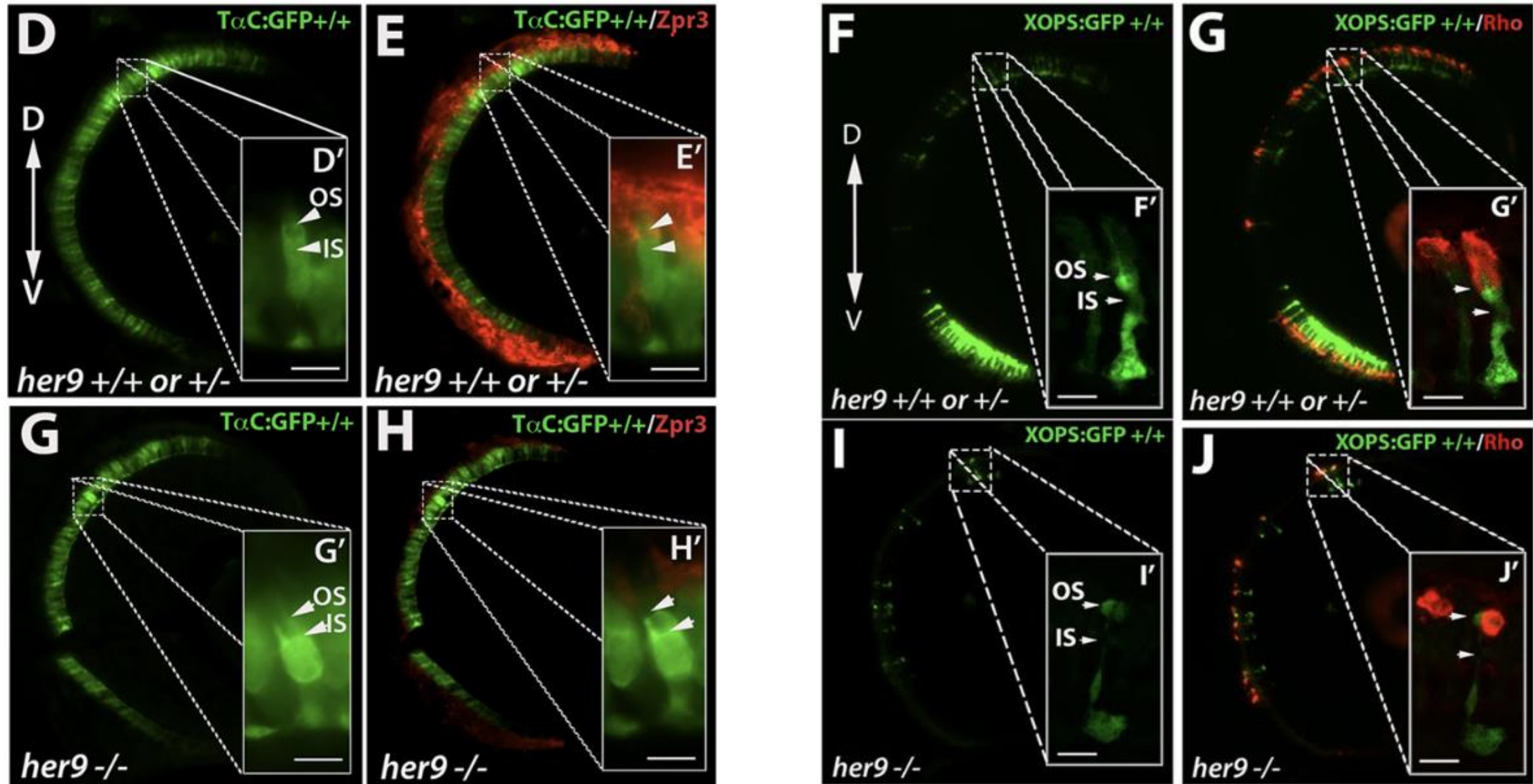
Department of Biology

# The vertebrate retina

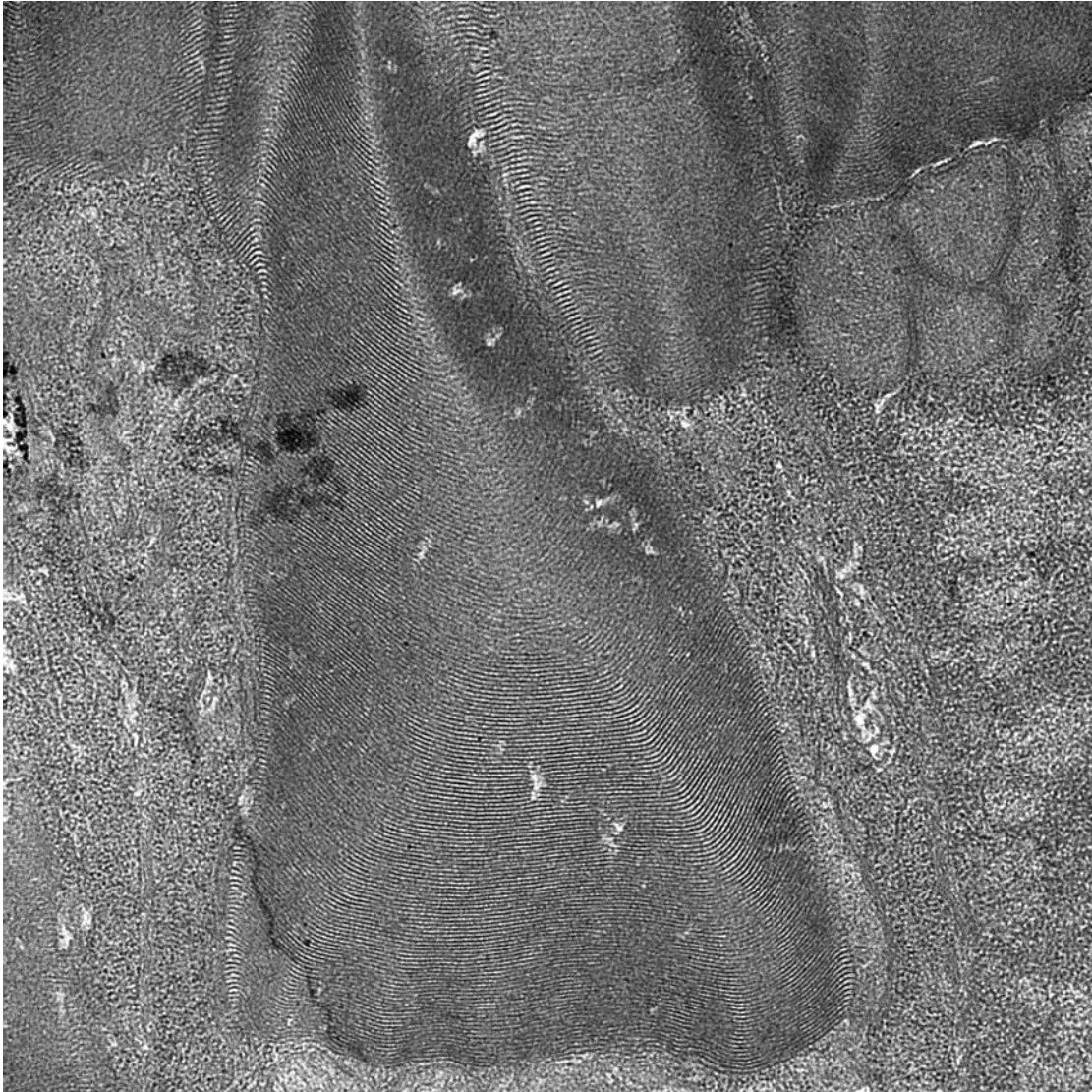




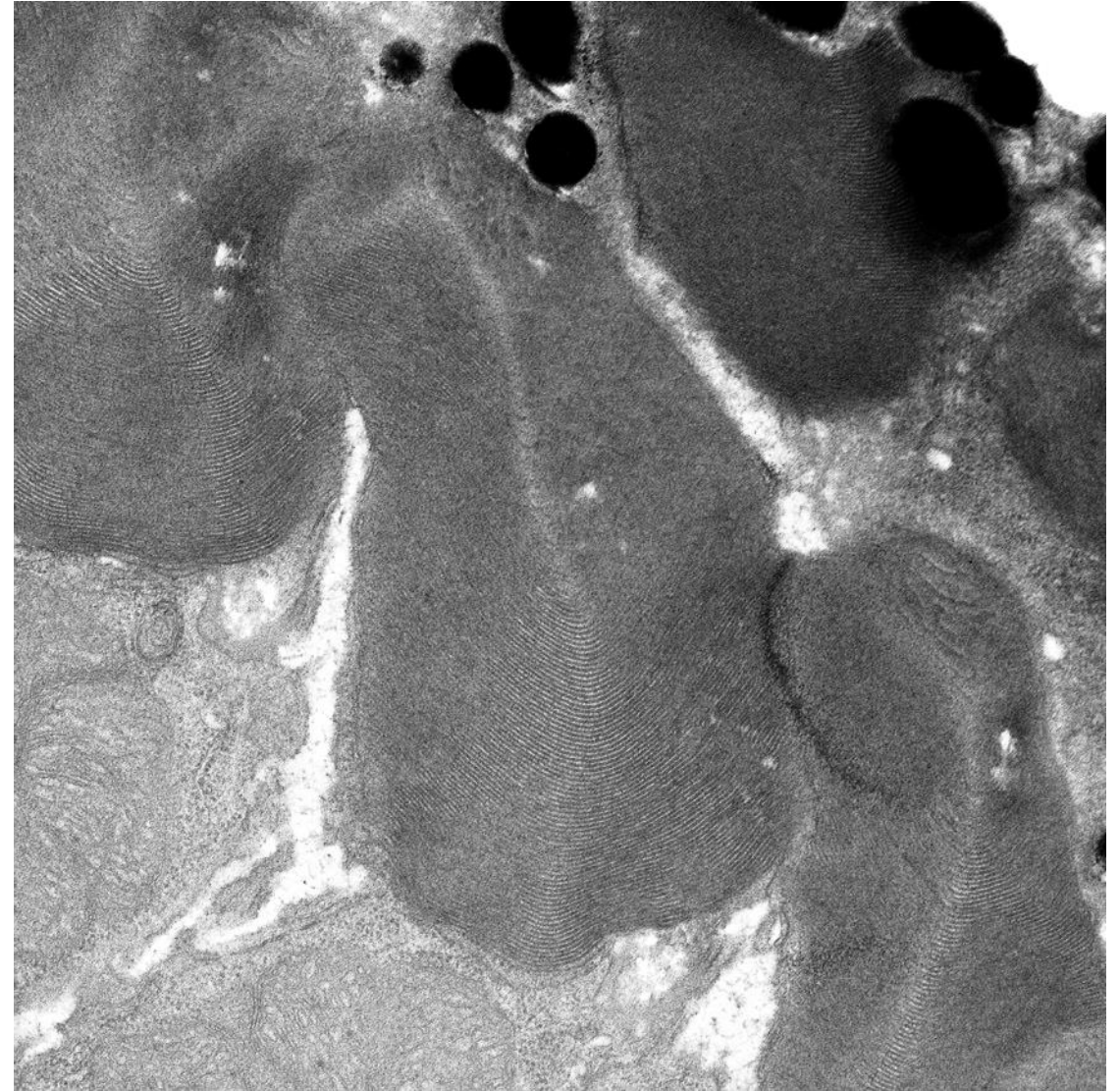
Immunohistochemistry indicates truncation of the outer segments in *her9* mutant retinas.  
How does loss of Her9 affect photoreceptor ultrastructure?



# Cone Photoreceptors

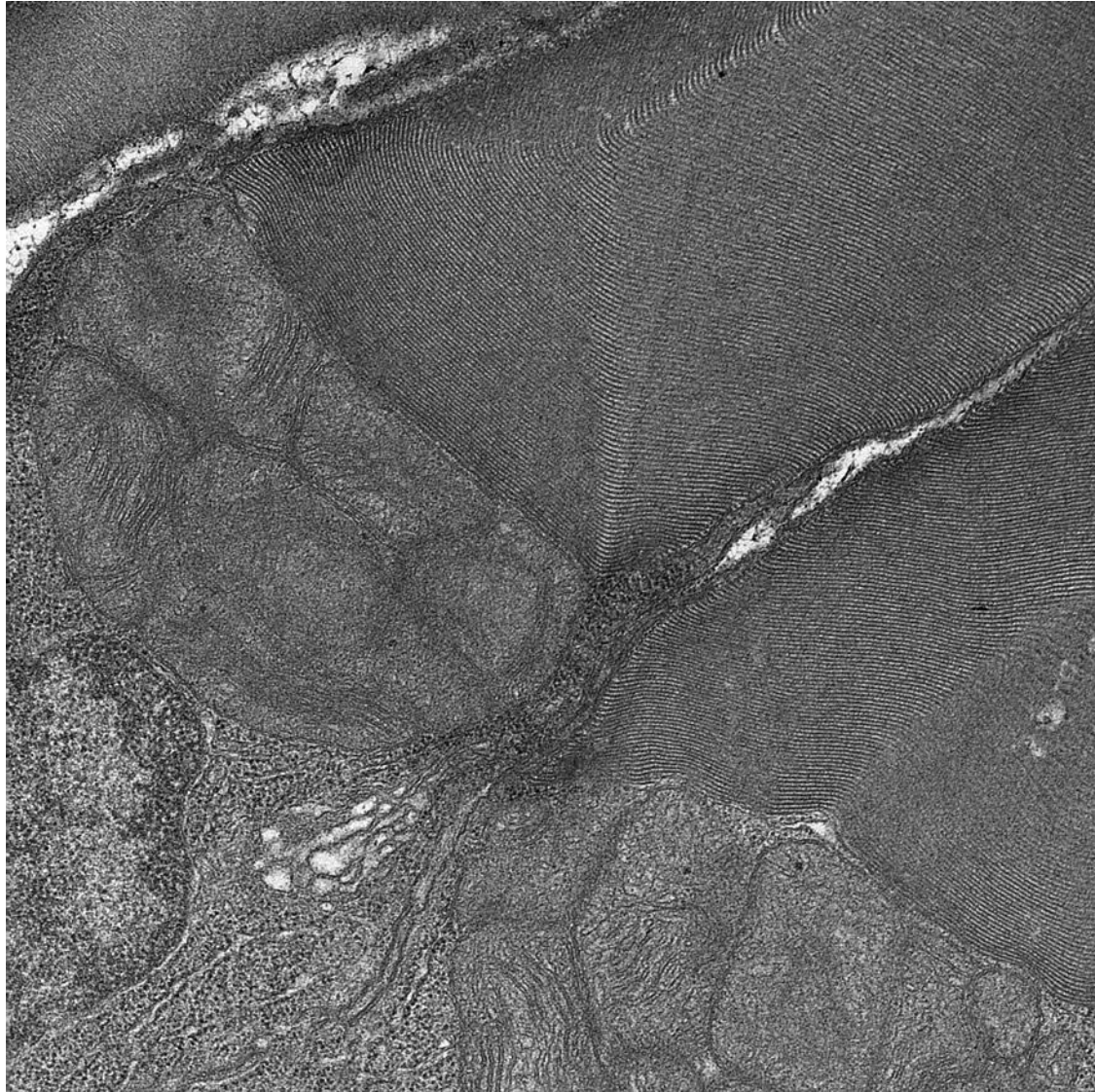


*her9<sup>+/+</sup> or her9<sup>+/-</sup>*

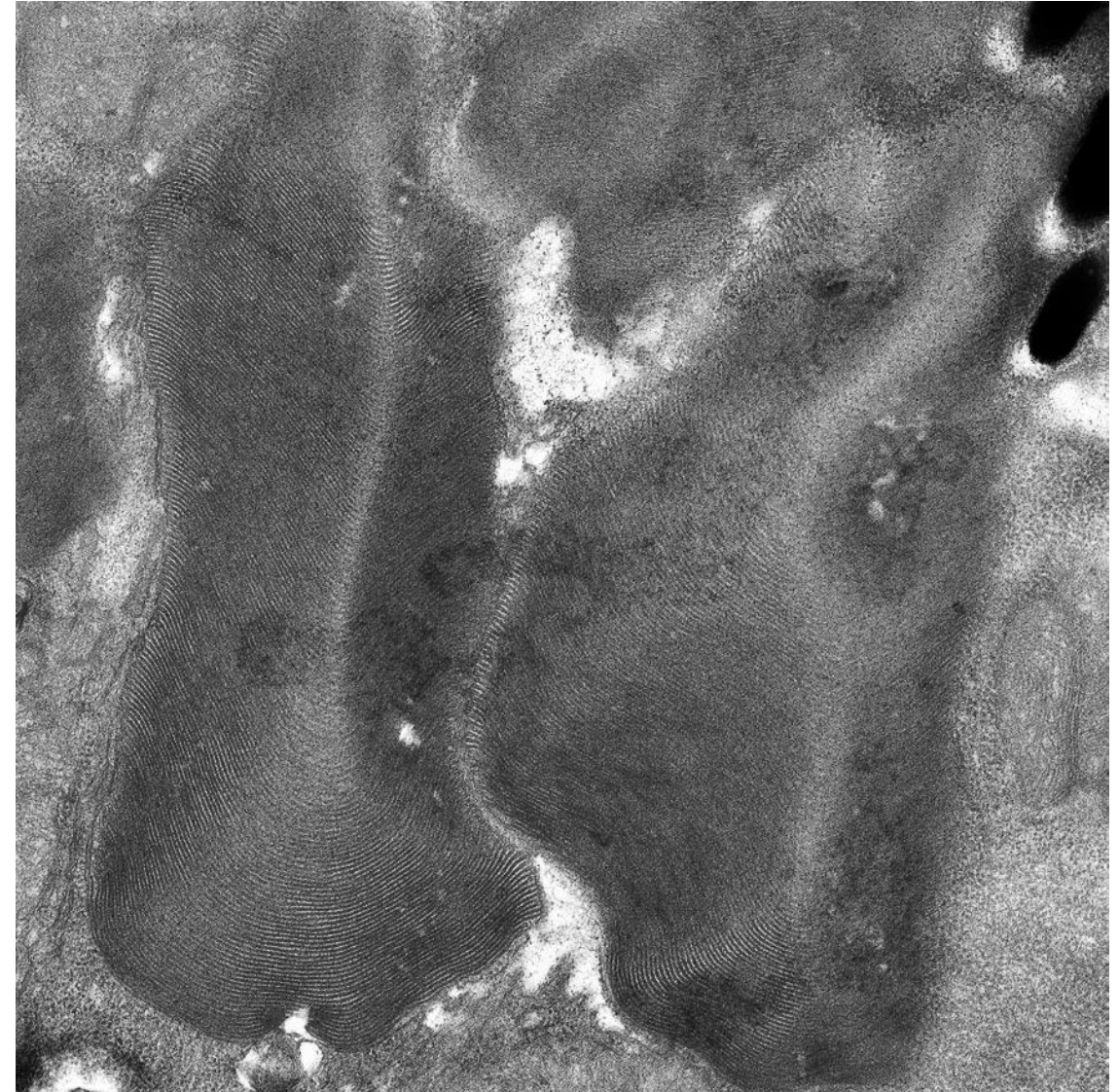


*her9<sup>-/-</sup>*

# Rod Photoreceptors



*her9*<sup>+/+</sup> or *her9*<sup>+/-</sup>



*her9*<sup>-/-</sup>

In conclusion:

It looks like there are defects with the ultrastructure of the disks in the photoreceptors, however....

We ran into several issues with our sample prep:

- Tiny samples (a little bigger than a pin head for a 5-day old zebrafish)
- In order to visualize the cells of the retina, the animals need to be positioned correctly
- First time our lab or prep lab had worked with these methods
- Need to establish the correct thickness and position

For analysis we plan to continue with a collaborator with more experience in the prep/imaging/analysis of these types of samples