

Whale shark project lets students dive into genetic research

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Credit: Jack Kears

Biology undergraduates at Emory are studying genetics in a big way: They are the first to take a crack at researching the raw data from the sequence of the genome of the whale shark, the world's largest fish.

"This project is amazing because we're actually getting to do scientific work and further research," says Mansi Maini, a sophomore majoring in neuroscience and behavioral biology.

The project to sequence the whale shark genome is a collaboration between Tim Read, a professor of infectious diseases at Emory School of Medicine, and Alistair Dove, director of research and conservation at the Georgia Aquarium.

Whale sharks can grow up to about 40 feet long. They have huge

mouths, and yet they are filter feeders that mainly eat tiny organisms like plankton. Like all sharks, they are ancient animals, among the earliest of jawed vertebrates.

"When we're looking into the whale shark [genome](#) we're doing a sort of molecular archeological dig," Read says. "We can see the history of the whale shark in its tissue."

The researchers are particularly interested in exploring the immune system of the whale shark.

"Better understanding the whale shark genes involved in the adaptive immune system could help us better understand how the immune system works across species, throughout evolution," explains Megan Cole, Emory's director of undergraduate biology laboratories. "That could help inform how to improve the immune system in humans to work on autoimmune diseases and to improve fighting off infections."

Provided by Emory University

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