



BIOINFORMATICS SEMINAR

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PERSPECTIVES GAINED WHEN TRANSITIONING FROM HYPOTHESIS-DRIVEN TO DISCOVERY-DRIVEN RESEARCH

Changing research fields is always a challenge. There are new techniques and new background knowledge to be learned. It is an exciting process that takes time and dedication. In some cases, such as mine where I changed from algae biofuels research to microbial ecology research, this transition also requires a fundamental shift in mindset about what is considered scientific research. For classically trained scientists that are brought up on the scientific method this requires hypothesis formation followed by experimentation, results interpretation, and rejection or acceptance of the hypothesis. Discovery driven research on the other hand performs extensive generation and/or exploration of datasets with the end goal of forming hypotheses. The drastic change in end goal can cause friction between and within scientists. However, I believe that understanding both mindsets provides an enhanced view of science and the type of research we can accomplish.

BIOGRAPHY

Jacob Dums is a postdoctoral researcher in the Viral Ecology and Informatics Lab (VEIL) supervised by Eric Wommack and Shawn Polson, where he researches variation in marine microbial communities due to environmental gradients. Received his PhD in Plant Biology from North Carolina State University where he worked on algae genetic engineering and algae metabolism.



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