



Report from the front lines of our multicellularity Long Term Evolution Experiment: evolving tough bodies, simple development, and increased cellular interdependence.

William Ratcliff, Friday, September 25, 2020

3:00 – 4:00 PM, Zoom Virtual meeting room

Presentation: The title kind of says it all! We have established a long-term evolution experiment in yeast, examining how novel multicellular critters evolve to be more complex over thousands of generations of directed evolution. In this talk, I'll describe how our 'snowflake yeast' evolve to form biomechanically tougher bodies (which are ~10,000 times larger than their ancestor), figure out simple multicellular development, and evolve cells that are interdependent. Broadly speaking, our work examines how simple clumps of cells can become units of selection which gain adaptations, becoming more complex. This talk will focus almost exclusively on unpublished work.

About the speaker: Will Ratcliff is an Associate Professor at Georgia Tech, and the co-director of their Quantitative Biosciences PhD program. Will is an evolutionary biologist broadly interested in social evolution, of which multicellularity is a very specific and interesting case. He started playing around with evolving multicellularity in yeast as a side project while a grad student working on legume-rhizobium symbiosis, and it quickly became the main focus of his research.



Seminar information: This seminar will be held virtually via Zoom. To log into the seminar please use the following web link:

<https://fresnostate.zoom.us/j/93828128141?pwd=K2NuaEExTGpLVWM0N2lvWnpETHMyQT09>

Passcode: 542050