

ROSENZWEIG LAB

A PhD position is available in the School of Biology at Georgia Tech to participate in research on the evolution of major transitions in the history of life. The successful applicant will join the NASA Astrobiology Institute <https://astrobiology.nasa.gov/nai/> as a member of the CAN-7 team led by Frank Rosenzweig. The doctoral fellow will investigate the evolution of complexity via multicellularity and cell differentiation in the green alga *Chlamydomonas*, and work under the supervision of NAI co-Investigator Matt Herron (PMID 24193369 PMID 23448295). The evolution of multicellular organisms from single-celled ancestors set the stage for unprecedented increases in complexity, especially in land plants and animals. We have used the unicellular green alga *Chlamydomonas reinhardtii* to experimentally generate de novo origins of simple (undifferentiated) multicellularity in two separate experiments. Using these newly-evolved, multicellular *Chlamydomonas*, we plan to ascertain the genetic bases underlying the evolution of multicellularity, evaluate the role of genetic assimilation in the evolution of multicellularity, and document the evolution of multicellular development in real time.