

QBioS Research and Training: Spanning Molecules to Ecosystems

An Interdisciplinary Graduate Program

The Ph.D. in Quantitative Biosciences (QBioS) is a new interdisciplinary program at Georgia Tech, founded in 2015 and supported by a consortium of more than 50 program faculty from six home schools in the College of Sciences.

A Novel and Flexible Training Program

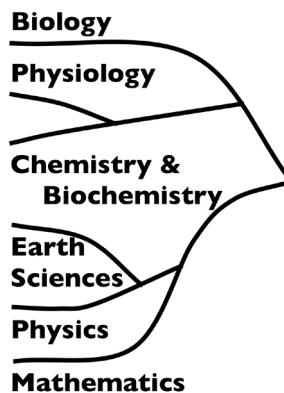
Featuring a flexible training program, including:

- Foundational courses in Quantitative Biosciences
- Rotations in modeling and/or experimental groups
- Selection of thesis advisor from all program faculty
- Rigorous and personalized quantitative training
- Five-year program of study from entrance to defense

Quantitative Biosciences integrates the physical, mathematical and biological sciences, enabling the discovery of scientific principles underlying the dynamics, structure, and function of living systems.

Home Schools

Biological Sciences, Chemistry & Biochemistry, Earth & Atmospheric Sciences, Mathematics, Physics, & Psychology



A Growing QBioS Student Community

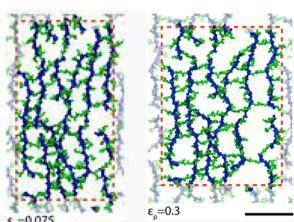
- 25 students in first three cohorts, in total.
- Feature diverse backgrounds and scientific training.
- Multiple award winners (including 2 NSF GRFP awards).
- Students come from the USA (12), China (4), Mexico (3), Bosnia, France, India, Iran, Israel, and Romania.



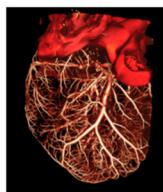
JOY PUTNEY

Inaugural cohort & NSF GRFP awardee (2017)

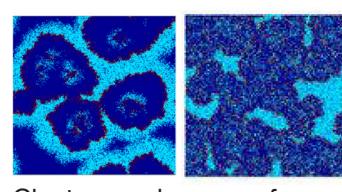
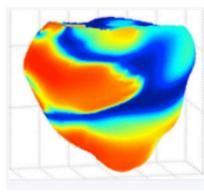
When I was considering graduate schools, the Quantitative Biosciences program at Georgia Tech stood out because of its interdisciplinary approach to the biological sciences. My campus visit impressed me with the quality of the faculty, both in terms of their world-class research and care for students. Both before and after I accepted the admission offer, it was clear that program faculty were invested in each individual student and wanted us all to succeed.



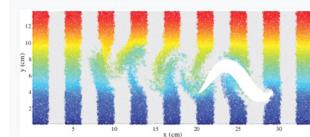
Bacterial cell wall structures in atom-scale simulations



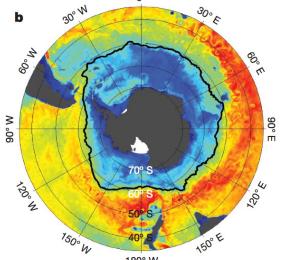
Simulating high energy shocks in a fibrillating heart



Clusters and waves of infections of microbes by viruses



Biomechanic principles of subsurface "swimming"



Biogeochemical dynamics resulting from the coupling of physical and biological processes

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Admissions

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QBioS is now accepting applications from students interested in integrating quantitative methods with bioscience research.