

Modeling and Simulation Research Affiliate at Takeda Pharmaceuticals

The Modeling and Simulation group at Takeda Pharmaceuticals in Cambridge, MA is looking for Research Affiliates to work on modeling projects investigating evolution in tumors and its impact on treatment success.

Who we are

We are a fast-moving group whose mission is to support rational quantitative decision-making in drug discovery and development through the application of mathematical modeling. In particular, we identify ways to translate preclinical data into recommendations for clinical development, and to make drugs more developable at every step along the way. We take a forward-thinking approach and build novel capabilities through focused research projects applying mathematical modeling to drug development in new ways.

What you will do

As a research affiliate, you will work on an independent project in theoretical cancer biology. Working closely with our scientists, you will explore in-depth an industry-relevant basic science question with the goal of producing your own academic publication. This opportunity will give you research experience in support of a career in scientific positions in academia or industry.

Potential projects will involve using modeling and simulation to investigate the evolutionary process in tumors including the impact of tumor heterogeneity on disease progression, and how treatment affects the evolutionary dynamics of a cancer. Projects are expected to take a total of 150 hours to complete, and you should plan on committing at least 20 hours per week during January followed by 8-10 hours per week from February through March. All work is theoretical or computational, and does not require any wet-lab components.

Who you are

- Current graduate or undergraduate student, or post-doc. All majors and years welcome.
- Experience with mathematical modeling, differential equations, and statistics.
- Proficiency with MATLAB, Mathematica, R, Python, or similar.
- Exposure to evolutionary dynamics and/or game theory is a plus.
- Comfortable with reading and analyzing scientific literature.
- Experience with publications is a plus.
- Organized, with an ability to prioritize time-sensitive assignments.
- Motivation and creativity to solve problems in cancer biology.

Details

- \$17/hr (20 hours per week during January 2015, followed by 8-10 hours per week through March 2015 for approximately 150 hours total.)
- Publication expected (minimally, an abstract at an international conference; potential for publication in a peer-reviewed journal.)

How to Apply

Contact Christopher.Zopf@takeda.com with your resume by December 3, 2014.

About Takeda

Takeda is a rapidly growing and energetic corporation that attracts and retains well-qualified personnel from all over the world. We strive to maximize the capabilities of our diverse workforce while pursuing our mission to provide quality pharmaceuticals to people worldwide. The corporate climate at Takeda fosters collaboration across the globe, and our growth potential is appealing to ambitious individuals. All Takeda employees are encouraged to continuously develop their skills and are fairly evaluated and rewarded for the results they achieve. We hope that you can join us in our vision for better health and brighter futures for all.

