

**Job Title:**

Postdoctoral Researcher

**Workplace:**

The Agmon Lab is a computational biology laboratory at UConn Health's Center for Cell Analysis and Modeling (<https://eagmon.github.io/>). We are developing multi-scale models that span from molecular underpinnings, to integrated cellular functions, to multi-cell interactions of microbial communities in changing environments. This requires the development of new computational methods that combine multi-source and multi-level data with models of diverse biological mechanisms, and execute these as integrative simulations. To support this vision, we are building Vivarium – an open-source ecosystem of modular biological models (<https://vivarium-collective.github.io>). We have several ongoing collaborations that apply Vivarium in the domains of whole-cell modeling, community interactions in microbiomes (ocean microbiomes and gut microbiomes), synthetic cells, and the origins of life.

**Job Description:**

We are looking for a passionate scientist that will build integrative multi-scale models of *E. coli* community interactions, and will further enhance the capabilities of the Vivarium ecosystem. The individual will work on a transformative project, diving deep into areas of single cell bacterial physiology, microbiome analysis, and the origins of community structure. This role demands both expertise in computational modeling, and the vision to integrate traditional computational methods with novel biological insights, propelling our understanding of microbial communities to new heights.

**Requirements:**

PhD in Computational Biology, Bioengineering, Complex Systems, Physics, Computer Science, Artificial Life, or related field  
Experience programming in Python  
Motivated and collaborative

**Responsibilities:**

Build robust open-source models and use them to study cellular systems of interest  
Work with collaborators to integrate their experimental data or models into fully functional multi-scale simulations  
Publish research papers

**Benefits:**

Medical and dental insurance  
Opportunities to work with researchers across several existing collaborations, and to contribute to an exciting new field of science  
Flexible work schedule

**Availability:**

- This position is available immediately and open until filled. Contact Eran Agmon at [agmon@uchc.edu](mailto:agmon@uchc.edu) for further details.