

## **Post-Doc Opportunity at The National Institute of Standards and Technology (NIST)**

**Gaithersburg, Maryland**

### **Tools to Predict the Emergence And Spread of Antimicrobial Resistance.**

For this opportunity, we are soliciting postdoctoral fellowship applicants interested in projects aimed at exploring the feedback between microbial evolution and the environmental or ecological context of the microbial population; and/or in developing novel measurement and/or modeling tools that will allow us to predict the potential for the emergence of resistance to traditional and novel antimicrobials.

Experimental and theoretical approaches could include, for example, micro/nano-fluidic technology, synthetic biology, genome-scale constraint-based modeling, next-generation sequencing, decision/game theory, mixed microbial or multi-kingdom communities.

Available facilities include state-of-the-art micro- and nano-fabrication capabilities, next-generation DNA sequencing, single cell omics capabilities, microscopy, high performance computing, and laboratories for microbial and mammalian cell culture.

We are seeking independent, motivated individuals with backgrounds across the physical, engineering, chemical, and biological disciplines to contribute to our collaborative, interdisciplinary project.

The emergence of antibiotic resistant “Superbugs” has become a world health crisis. Antibiotics are the primary line of defense in the fight against microorganism-based infectious disease. Microbes exist that are resistant to every class of antibiotics that are currently available. Over the last 30 years, no new major types of antibiotics have been developed due to the lack of financial incentives for pharma companies to direct resources at bringing new antibiotics to market.

To apply, please contact:

Javier Atencia ([Javier.Atencia@nist.gov](mailto:Javier.Atencia@nist.gov))

Or

Scott Jackson ([Scott.Jackson@nist.gov](mailto:Scott.Jackson@nist.gov))