

Postdoctoral Appointee – Synthetic Biology to Target Bacterial Pathogens



Location: Livermore, CA
Full Time, Temporary

What Your Job Will Be Like

Are you looking to do creative and worthwhile research? Do you want to increase your engagement with research that protects the population from emerging infectious diseases and prepares us to respond to future threats? Sandia/California's Biotechnology and Bioengineering Department is seeking a Postdoctoral

Appointee to join a multidisciplinary team using microbiology, molecular and synthetic biology, and bioinformatics methods to create and evaluate novel synthetic bacteriophages as countermeasures against bacterial pathogens. The selected applicant will further develop and implement a new technology platform ("Phage Factory") that enables on-demand production of virulent phages that specifically and efficiently target bacteria of interest. The project will involve phage and bacterial genome engineering and bioinformatic approaches. The individual selected will work at Sandia's Livermore campus and interact with a multidisciplinary project team, including scientists from other national laboratories.

On any given day, you may be called on to:

- Address the global threat of antibiotic resistance
- Identify novel bacteriophages and perform phage and bacterial genome engineering to combat antibiotic resistant pathogens
- Analyze large data sets and integrate results to develop improved experimental designs
- Mentor technologists and interns
- Work to execute, track and refine project plans with an integrated multidisciplinary team that may include members from national labs, universities, and industry
- Publish scientific papers in peer-reviewed journals and present findings at seminars and conferences

The Postdoctoral Appointee works onsite in Livermore, California. The salary is set for this position at \$104,900 annually.

Qualifications We Require

- Recent PhD in Biology, Microbiology, Molecular Biology, or a related field
- Experience with molecular biology techniques (e.g., PCR, primer design, and molecular cloning)
- Proven record of high technical accomplishment and written communication (e.g., as evidenced by publication in high-impact scientific journals) and/or strong verbal communication and data presentation skills (e.g., as demonstrated through scientific conference presentations)

Qualifications We Desire

- Strong background in microbiology, particularly the biology of anaerobic bacteria and their phages
- Expertise in microbiology and synthetic biology
- Bioinformatics skills, especially familiarity with software tools for genomic analysis and command line programming
- Eligibility to obtain a US Department of Energy security clearance

Apply online at:
sandia.gov/careers
Job #: 691896

About Sandia:

Sandia National Laboratories is the nation's premier science and engineering lab for national security and technology innovation, with teams of specialists focused on cutting-edge work in a broad array of areas. Some of the main reasons we love our jobs:

- Challenging work with amazing impact that contributes to security, peace, and freedom worldwide
- Extraordinary co-workers
- Some of the best tools, equipment, and research facilities in the world
- Career advancement and enrichment opportunities
- Flexible work arrangements for many positions include 9/80 (work 80 hours every two weeks, with every other Friday off) and 4/10 (work 4 ten-hour days each week) compressed workweeks, part-time work, and telecommuting (a mix of onsite work and working from home)
- Generous vacations, strong medical and other benefits, competitive 401k, learning opportunities, relocation assistance and amenities aimed at creating a solid work/life balance*

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*These benefits vary by job classification.

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About Our Team

The Biotechnology and Bioengineering Department, located in Livermore, CA, performs both basic and applied biological and bioengineering research with broad applications in national security, biodefense, health security, climate, and energy security. Our research in virology, microbiology, immunology and bioinformatics, is addressed by advanced technology development including CRISPR/Cas technologies, antibody engineering, advanced omics, synthetic biology, and advanced materials and nanotechnology. Our department is integrated into the highly multidisciplinary Applied Biosciences and Engineering Group, comprised of researchers with expertise in many disciplines of biology (molecular biology, microbiology, virology, immunology and biochemistry), chemistry (analytical, organic and physical), computational science (bioinformatics, machine learning, computational chemistry), and engineering (chemical, mechanical and biomedical).