

TITLE: Laboratory Automation for Cell-Based Assays (U.S. Citizens preferred)

Overview: The Material Measurement Laboratory (MML) of the National Institute of Standards and Technology (NIST) is seeking qualified persons (U.S. citizens preferred) to contribute to the development of advanced measurement infrastructure for biomanufacturing and the automation of biological assays. These activities underpin distributed manufacturing concepts made possible by the emergence of biofoundry networks and cloud laboratories. The selected candidate will join a dynamic, multidisciplinary team developing transferable cell expansion processes and assay performance specifications for automated systems to ensure reliability in next-generation platform manufacturing. The candidate will contribute to the unique measurement and tooling needs required to facilitate innovation in the U.S. bioeconomy.

Duties:

- Conduct innovative research in transferable manufacturing systems for living-cell reference materials.
- Translate experimental designs into automated laboratory instrumentation programs.
- Design and execute experiments, analyze data, and interpret results.
- Collaborate with multidisciplinary teams across the institute.
- Write and publish manuscripts for peer-reviewed and open-science mediums.
- Present findings at national conferences and institutional meetings.

Required Skills and Qualifications:

- Ph.D. in Bioengineering, Chemical Engineering, Cell Biology, Synthetic Biology, or a related field.
- Experience working with mammalian cell cultures, specifically induced pluripotent stem cells (iPSCs).
- Experience writing and executing programs on large laboratory automation systems (e.g., liquid handlers, automated microscopes) for cellular measurements.
- A track record in interdisciplinary research, particularly within automated laboratory frameworks.
- Strong oral and written communication skills and the ability to travel occasionally for collaborations.

Other Desirable Qualifications:

- Proficiency in scientific data analysis and statistics using Excel, Python, R, or MATLAB.

Employment Terms: This opportunity is to be an postdoctoral associate researcher in the Biosystems and Biomaterials Division at NIST for a term of 1 year, with the potential to renew. Associate researchers are NOT Federal Employees, but they work aside NIST researchers and with NIST's often world class instrumentation. Relocation expenses will not be provided. U.S. Citizens hired into associate positions may have the opportunity to seek longer term Federal Employment.

Salary: \$80,000 – \$110,000

How to express interest: Persons (U.S. Citizens Preferred) who meet all of the required qualifications and who would be interested in taking this position are invited to express their

interest by sending an email that briefly describes their qualifications along with a CV to 644assoc@nist.gov. US Citizens should note "US Citizen" and the opportunity title in the email subject line. All others should note "Non-US Citizen" and the opportunity title in the email subject line.