**NIST PREP Post-Graduate Fellow**

This position is part of the National Institute of Standards (NIST) Professional Research Experience (PREP) program. Cell count and cell viability are fundamental measurements for biotechnology and critical in the release of cellular therapeutic products. There is a need for accurate cell count based measurements, which will require the development of appropriate reference methods and reference materials. In this project, we will develop cell count/viability reference materials that are fit-for-purpose, stable, and homogeneous. Automated liquid handling and sample preparation systems will be used to generate cell samples at varying dilutions following ISO cell counting standards. Advanced cell analysis techniques will be used to enumerate cells using different counting modalities including flow cytometry, digital PCR, fluorescent imaging, brightfield imaging, and coulter principles. Cell preservation techniques including lyophilization, fixation, and cryopreservation will be evaluated for their ability to generate stable cell-based reference materials. This project is directly applicable to the development and characterization of cell-based therapies and will advance measurement capabilities critical for the success of these novel therapeutics.

**Desired Research Training:**

Flow cytometry, genomic measurements, microscopy, cell-based assays, cell therapy manufacturing, design of experiments, statistical analysis, laboratory automation systems

**Relevant Degrees (M.S. or PhD.):**

Biology, Molecular Biology, Biomedical Engineering, Immunology, Biotechnology, Biochemistry, or related fields.

**Primary Location:** NIST, Gaithersburg MD 20899

**Period of Performance:** 2 years period, position is currently open.

**Contact Information:**

For more information please contact:

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