DHM | RI

David H. Murdock Research Institute

Staff Scientist, *In Vitro* Sciences Laboratory – Job Code: ISL-302

Job Description:

The *In Vitro* Sciences Laboratory (IVTS) in the David H. Murdock Research Institute at the North Carolina Research Campus in Kannapolis, NC is growing and expanding into new research areas including metabolic disease, oncology and cardiovascular disease. As such, we are seeking a Staff Scientist to join the IVTS team. Working as part of a team, this researcher will be responsible for hands-on processing of preclinical and clinical samples and subsequent data analysis. With direct guidance from senior and experienced colleagues, the successful candidate will undertake preclinical and clinical experiments at the gene, protein, metabolite and/or cellular level to better understand the pathophysiology of diseased states in animal models and their translation to the human clinical therapeutic and diagnostic setting. These studies will be developed and undertaken in collaboration with clients and collaborators from academia, government and industry.

Principal Responsibilities:

- Develop and conduct assays using 96/384-well plate-based immunoassay readers (e.g., Meso Scale Discovery, Luminex, PerkinElmer EnVision) for both solid–phase (ELISA-type) and homogeneous (fluorescence/luminescence-based) immunoassay technologies.
- Develop and validate new assays for protein and metabolite markers in support of our clients and collaborators using good laboratory practices to meet quality assurance standards and to optimize efficiency.
- Develop, validate and perform flow cytometry assays for multiparameter cell surface and intercellular analysis.
- Support the validation and performance of clinical chemistry and hematology assays across a range of bioanalytes; compile and review the data and prepare for auditing prior to being sent to clients.
- Perform chromatography (ion exchange, gel filtration etc.) as part of protein biochemistry based projects aimed at identifying protein biomarkers in clinical patients.
- Use bench top automation and liquid handling robots as dictated by the study volume.
- Perform data analysis and dose-response curve fitting using commercial curve fitting software.
- Support the development of new methods/SOPs for analyzing preclinical and clinical samples and the implementation of those SOPs in a timely manner with proper care and documentation.
- Review/audit assay data according to established SOPs. Bring potential problems to the attention of colleagues in a timely manner prior to uploading data to clients.
- Contribute to the development and updating of new and current SOPs.
- Interact with external clients on project teams and with colleagues in the other laboratories at the DHMRI. A customer-focused "delivery attitude" is essential.
- Contribute to the design, performance, data analysis and publication for internal research projects.

Qualifications:

- MS/PhD in cell biology, biochemistry, biophysics, clinical sciences, immunology or related field.
- 5 or more years of experience in a commercial, government or academic laboratory setting – ideally one that has a focus on assay development and sample profiling.
- Laboratory experience should include 96/384-well plate bioassays, flow cytometry cellular analysis. The use of clinical chemistry analyzers is an advantage.
- Research experience in metabolic syndrome (diabetes, obesity, cardiovascular) or cancer biology is desired.
- Experience handling human blood samples and competence with scientific instrument and data analysis software.
- Experience with a Quality Assurance system, automated robotic systems and/or applying Lean Sigma techniques is an advantage.
- Strong attention to detail and focus on the importance of data quality and timely completion of assignments.
- Good oral, written and computer skills.

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