INDIANA BIOSCIENCES RESEARCH INSTITUTE

Research Associate – Mallone/You Laboratory

We are the Indiana Biosciences Research Institute (IBRI). We are a leading translational research institute that advances academic and industry science through collaboration to improve patient health outcomes. Building your career at the IBRI in Indianapolis' 16 Tech Innovation District, means being part of a team of renowned scientists, creative thinkers and innovative leaders.

Today's research is being driven by significant advances in our abilities to study complex disease processes and propose new ways to improve patients' lives. To reflect the evolving nature of life sciences research and encourage synergies through collaboration, we're enhancing our integrated capabilities, adding depth to how we approach patient-informed translational science, and pursuing four foundational areas of scientific focus. These four areas will provide us with the core talent and capability to pursue translational science in this new patient-centric framework:

- **Disease, Systems, Pathways –** We're working to understand diabetes better and identify new ways to combat the disease. We're applying this learning to other conditions that share common systems and pathways.
- **Molecular Innovation** – We're developing new capabilities for molecular design and drug discovery to investigate disease processes and pursue new therapeutic approaches.
- **Integrated Data Sciences** – We're pursuing advanced data sciences to create novel end-user-inspired solutions that address complex analysis, simulation, and prediction across the translational sciences.
- **Enabling Technologies** – We're building a rich platform of enabling technologies that give our scientists, partners, and collaborators access to the best tools to solve complex scientific problems.

The IBRI's vision is to build a world-class organization of researchers, innovators, and business professionals that catalyze activities across the Indiana (and beyond) life sciences community. To achieve that vision, we look for curious and collaborative team members who are energized by innovation, guided by integrity, and inspired by diversity.

The Opportunity:

A **Research Associate** position is available at the IBRI in the Laboratory of Roberto Mallone and Sylvaine You. This lab works on the immunology of type 1 diabetes (T1D), an autoimmune disease where pancreatic insulin-producing beta cells are destroyed by autoreactive T cells. Roberto Mallone (MD PhD) and Sylvaine You (PhD) co-lead a research team at the Cochin Institute in Paris, France. Starting April 2023, they are launching a satellite laboratory at IBRI to further develop their research, focusing on the detrimental dialog that takes place between autoimmune T cells and target beta cells, with the objective of identifying the molecular actors of this cross-talk at both the T-cell and beta-cell level, along with novel therapeutic targets.

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The Research Associate will participate in a team working with human and mouse T cells, iPSC-derived beta and immune cells, functional in vitro and in vivo studies and advanced cell and molecular biology techniques. The selected candidate will take initiative in proposing and performing experiments with support from the Lab Staff Scientist and Directors.

Responsibilities:

Maintain, develop, and conduct experiments with human/mouse T cells and human iPSC-derived cells, including:

- Preparation of human peripheral blood mononuclear cells and isolation of relevant T-cell subsets,
- Preparation of mouse organs/tissues and isolation of relevant T-cell subsets,
- Lentiviral transduction of primary/immortalized T cells,
- Differentiation of iPSC into beta cells and immune cells,
- Characterization of rare populations of human and mouse autoimmune T cells by flow cytometry and functional assays in co-culture with iPSC-derived beta cells,
- In vivo investigations in the NOD mouse model of T1D.
- Accurately document research findings.
- Assure routine lab tasks: order and organize lab supplies and equipment, keep records, maintain databases.

Qualifications:

- Bachelor's in Biology, Biochemistry or a related field is required
- Relevant experience in cellular immunology, cell culture, flow cytometry
- Experience with iPSC and/or mouse models is not required but appreciated
- Proficiency in Microsoft Office (Word, PowerPoint, Excel) is required.
- Be open to learning new techniques
- Good organizational skills and communication skills are required.

Compensation:

Competitive salary and comprehensive benefits offered, commensurate with experience.

Equal Employment Opportunity:

The IBRI provides equal employment opportunities to all employees and applicants and does not discriminate on the basis of age, race, color, religion, gender, sexual orientation, gender identity, gender expression, national origin, protected veteran status, disability, or any other legally protected status.

Apply:

Please visit us at www.indianabiosciences.org/careers to learn more and/or apply for this opportunity. Interested individuals are encouraged to provide their CV/resume and a brief cover letter with their application.