

Staff Scientist – Mallone & You Lab

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 the core talent and capability to pursue translational science in this new patient-centric framework:

- **Disease, Systems, Pathways** – We're working to better understand diabetes and identify new ways to combat the disease. We're applying this learning to other diseases 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:

Roberto Mallone, MD, PhD, and Sylvaine You, PhD, currently co-lead a research team at the Cochin Institute in Paris, France. They are experts in **type 1 diabetes (T1D) immunology**, and they conduct pre-clinical and clinical investigations to better understand T1D pathophysiology and develop innovative immunotherapeutic approaches.

They are now building a **satellite laboratory** at the IBRI to further develop their research, focusing on the detrimental dialog that takes place between **autoimmune T cells and target pancreatic 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.

The Mallone & You satellite laboratory has a **Staff Scientist position** available for a talented individual with training, knowledge and experience in immunology. As a Staff Scientist, the candidate will help establish the lab and lead the research projects at the IBRI. The incumbent will design and perform experiments, critically analyze the results obtained, generate reports and use this information to fine-tune the starting hypotheses and design new experiments.

The candidate will work in close contact with Mallone and You during their stays in Indianapolis (20 percent of their time) or through regular at-distance meetings. The candidate will be required to oversee research activities, coordinate and work with a full-time research associate that is also being recruited. The position will be highly cross-functional and will build and maintain effective collaborations with the IBRI and the Indiana University School of Medicine researchers/collaborators, as well as members of the core facilities, in particular the induced pluripotent stem cell (iPSC) lab.

Regular interactions between the Paris and Indianapolis laboratories are also planned, including common lab meetings and short-term visits of research personnel traveling both ways.

Success in this role will be measured by the ability to drive scientific excellence through participation in research projects leading to publications, funding, patents, tools and innovation. The candidate must be highly motivated and use creative thinking in the resolution of scientific questions. The candidate should also be able to adapt to rapidly evolving technologies and have a broad interest for biomedical research. Successful candidates will need to demonstrate independent thinking and writing skills, as well as have the capacity to undertake responsibility as project leader.

This position is ideal for you if you want to work in an innovative institute in the middle of a technology district with opportunities to interact with other life sciences organizations in the region, within the US and in Europe.

Responsibilities:

- Oversee and operate the research activities of the Mallone & You Lab on a daily basis, including managing and executing research projects, developing and optimizing protocols, as well as supervising lab personnel.
- Direct and conduct experiments, including:
 - Characterization of human and mouse self-reactive CD8+ T cells using HLA class I multimers.
 - In vitro functional assays using iPSC-derived beta cells to measure T-cell activation and cytotoxicity.
 - Screen for beta-cell-protective target genes and agents and define their mode of action.
 - In vivo investigations in the NOD mouse model of T1D.
- Independently conduct research projects based on review of the scientific literature and recent advances in related fields; contribute original conceptual and methodological ideas; design key experiments and develop new techniques.

- Provide detailed research reports on project progress.
- Direct and advise the work of lab personnel to enable them to successfully participate in laboratory projects.

Qualifications:

- PhD in Immunology, with at least two (2) years of research experience.
- Advanced theoretical and practical knowledge of human immunology, autoimmunity, T-cell functional assays.
- Extensive experience in multiparametric flow cytometry and cell culture techniques.
- Capacity to undertake responsibility as project leader, creative and independent thinking.
- Excellent written, verbal and interpersonal communication skills including tact, diplomacy and flexibility to work and interact effectively with staff, researchers and management in various forums.

Additional preferred qualifications:

- Demonstrated ability working in a multi-disciplinary environment.
- Experience in supervising team members.
- Experience in working in multi-center, multi-discipline, milestone-driven projects.

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 <https://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.