

Chemistry-focused Data Science or Informatics Position Integrated Data Sciences Innovation

Don't just research...**Discover!**

We are Indiana Biosciences Research Institute (IBRI). We deliver research that has a meaningful impact on the lives of people through new solutions that address diabetes, cardiometabolic diseases and poor nutrition. Working at the IBRI means being part of a team of renowned scientists who are helping to improve Hoosier health. It also means you are not alone. In addition to your experienced team members, you have collaborators from the Indiana life sciences ecosystem.

Our colleagues bring diverse ideas and experiences to our work, are dedicated to living out our mission every day and are passionate about their research. So passionate that it often carries out into the community through work volunteering at local nonprofit organizations and helping to educate the next generation of scientists.

The IBRI's vision is to build a world-class organization of researchers, engineers 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:

The Integrated Data Sciences Innovation scientific area has a position available for a talented individual with training and experience in cheminformatics, molecular modeling or chemistry-based data science with strong complementary technical skills. Experience or aptitude to learn the biology related to diabetes, immunology or other disease areas is expected for success in this role.

This position is an integral part of the Integrated Data Sciences Innovation team as it works to empower the IBRI strategy through data integration, analytics, machine learning and simulation to understand molecular innovation in modifying disease and accelerate novel biomarker and therapeutic discovery.

The ideal candidate for this role is one who can work directly with medicinal chemists and disease biologists to understand their scientific goals, perform the necessary analyses on structural and biological data, and identify novel compounds for screening or synthesis to advance the progress of the drug discovery teams. The ideal candidate will also be one who can instantiate these processes into validated informatics workflows that can be re-used by themselves or others for future projects. These validated workflows are expected to be integrated into systems and platforms for broader use by partners or collaborators within the regional or national life sciences ecosystem.

Success is measured by the ability to drive scientific excellence in a multidisciplinary team that leads to publications, grants, patents, tools and innovation. This position is expected to directly assist the IBRI's applied research mission to deliver innovation in advancing new biomarkers or therapeutics that are important in disease diagnostics or treatment.

Responsibilities:

- Provide cheminformatics, molecular modeling and data science expertise and analyses to multi-disciplinary scientific research teams.
- Develop innovative and robust informatics pipelines for the extraction, interpretation and analyses of diverse data sources to enable team decisions.
- Support efforts delivering these workflows into tools or platforms for effective use of data searching, integration, sharing, analysis and visualization by research teams.

Qualifications:

- Bachelor's or higher degree in cheminformatics, molecular modeling, molecular dynamics, mathematics, statistics, computer science or related scientific discipline.
- Demonstrated ability working in a multi-disciplinary team to drive the identification of new molecular entities to drive target enablement and new screening efforts in drug discovery.
- Proven skills in communication of complex analytic approaches, results and visualizations to peers and scientists in other disciplines.
- Exemplified experience through scientific publications or presentations of experience working with drug repositioning or identifying new molecule entities against biological targets.
- Proficiency accessing, mining and applying statistical analyses of public structural data sets such as Pubchem, ChEMBL, DrugBank and Patent Literature.
- Experience in scripting/programming in languages such as Python, Perl, C/C++, R, BASH.
- Knowledge of general biology, molecular biology and chemistry techniques.
- Ability and desire to rapidly learn new science and develop/use computational techniques to drive applied research leading to new innovations.

Additional specific preferences:

- Exemplified application of chemical analyses to identify new molecular entities as applied to problems in diabetes, immunology or related diseases.
- Desire to work in a fast-paced, growing, entrepreneurial-style organization in the heart of a new innovation district.
- Demonstrated technical skills across multiple operating systems including PC/Windows, MacOS and variants of Linux in a cluster-computing and/or cloud-based environment.
- Knowledge of medicinal chemistry and/or drug discovery process.
- Expertise in large scale data handling and integration (e.g., extraction, manipulation, cleaning, merging across multiple data sources).

- Experience working in a team setting using open-source tools, source version control repositories and test-driven development.
- Experience working with structured (MySQL/ORACLE-SQ) or unstructured databases (noSQL, MongoDB).
- Experience working with APIs (WebServices, REST, XML, JSON).
- Experience with cheminformatics workflow or open-source tools (e.g., Pipeline Pilot, KNIME, RDKit).
- Experience with modeling and cheminformatics software packages (e.g., Schrödinger Maestro, MOE, ChemAxon, StarDrop).
- Experience with cloud computing environments (e.g., AWS, Azure, GCP).

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.