

Troy A. Brier, PhD

COMPUTATIONAL CHEMIST · BIOPHYSICIST

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Wistar Institute Recruitment Team

February 4, 2025

THE WISTAR INSTITUTE
3601 SPRUCE STREET
PHILADELPHIA, PA 19104

Job Application for Bioinformatics Analyst

To whom it may concern,

About Me

I am a physical chemist by training with a background in scientific computing with a focus on biological systems. Specifically, I have utilized principles from chemistry, physics, and statistics to investigate diverse phenomena within bacterial cells such as a regulatory mechanisms for stress response and the functional relationships between the transcriptome and proteome. In my career, I have achieved proficiency in a wide array of computational tools to implement analytical pipelines within multiple different environments (HPC, AWS, Docker, Conda) on various operating systems (Linux, MacOS, Windows) leveraging custom and pre-built software packages within standard coding languages (Python & R). Additionally, I have developed skills in designing, managing, and contributing to exploratory multi-year projects requiring flexibility, self-assessment, reproducibility, and documentation suitable for publication. I have extensive experience working in highly collaborative environments, domestic and foreign, and I am proficient in presenting technical material to audiences with varying subject-matter expertise.

Why the Wistar Institute?

My former experience has given me a deep appreciation for scientific innovation and more importantly the obligation to extend innovation beyond the laboratory and into the real world. Therefore, I am particularly drawn to Wistar Institute's mission to accelerate research advances from bench to bedside in biomedical areas very important to our society. Furthermore, the Wistar Institute's dedication to collaborative science is exactly the type of environment I would like to be a member of. As a leader in biomedical research, I am enticed by the Wistar Institute's commitment (and track record) to produce novel and courageous scientific discovery. I would welcome the opportunity to join your team to help make Wistar Institute's vision a reality.

Why Me?

As a computational chemist, I have a deep understanding of fundamental biological principles, complemented by hands-on experience in scientific computing. I believe **Bioinformatics Analyst**. This unique combination has enabled me to design and manage exploratory multi-year projects, requiring adaptability, meticulous documentation, and effective communication with diverse audiences. My problem-solving abilities are enhanced by a commitment to learning and integrating novel techniques across disciplines, ensuring optimal outcomes for collaborative research endeavors. I have also worked extensively with repositories such as TCGA, COSMIC, and UCSC Genome Browser, utilizing these resources to address challenging biological questions.

working proficiency in Unix/Linux operating system knowledge of R, and/or Python scripting language basic proficiency in statistical testing understanding of fundamental biological principles strong problem solving and communication skills required familiarity with repositories of genomic data sets and analysis tools, such as TCGA, ICGC, COSMIC, ENCODE, ExAc, UCSC Genome Browser

Thank you for considering my application. I would welcome the opportunity to discuss my qualifications further.

Sincerely,

