

Troy A. Brier, PhD

COMPUTATIONAL CHEMIST · BIOPHYSICIST

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Wistar Institute Recruitment Team

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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 focusing on biological systems. Specifically, I have integrated principles from chemistry, physics, and statistics to investigate diverse phenomena within bacterial cells, such as a regulatory mechanisms for stress response and the interplay between the transcriptome and proteome. In my career, I have achieved proficiency in a wide array of computational tools to design and 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 with standard coding languages (Python, R, Bash, etc). Additionally, I have developed skills in designing, managing, and contributing to exploratory multi-year projects that require flexibility, self-assessment, reproducibility, and publication-level documentation. I have extensive experience working in highly collaborative environments, domestically and internationally, and I am well practiced in presenting technical material to audiences of 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 the Wistar Institute's mission to accelerate research advances from bench to bedside in biomedical areas that are critical to society. Furthermore, the Wistar Institute's dedication to collaborative science is important to me and aligns with my preferred working environment. As a leader in biomedical research, I am inspired by the Wistar Institute's commitment (and track record) of producing novel and courageous scientific discoveries. I would welcome the opportunity to join your team to contribute to making the institute's vision a reality.

Why Me?

As a computational chemist and biophysicist I would bring a deep understanding of fundamental biological principles, complemented by hands-on experience in scientific computing across diverse operating systems and environments. I have significant knowledge of Python and am proficient in R as tools to solve complex scientific questions. My ability to achieve and communicate scientific discovery is exemplified through my publication and presentation record. While I am not directly experienced with the mentioned repositories, I have proven my capacity to adapt and utilize new data sets to address challenging biological questions. In summary, I believe my problem-solving abilities, commitment to learning and integrating novel techniques across disciplines, and aptitude for collaboration makes me an ideal candidate for the **Bioinformatics Analyst** position at the Wistar Institute.

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

Sincerely,

Troy A. Brier, PhD