**Why GSK**

GlaxoSmithKline is a world leading research-based pharmaceutical company that combines both individual talent and technical resources to create a platform for the delivery of strong growth in a rapidly changing healthcare market. GlaxoSmithKline is recognized internationally for its innovative approach to drug discovery and development. Our success is built on the collaboration of multi-disciplinary teams of scientists sharing their ideas and expertise. We are seeking proactive chemists to join us in our mission to improve the quality of human life by enabling people to do more, feel better, and live longer.

**Who We Are**

GSK’s Chemistry Community is a large international community broadly encompassing Medicinal Chemistry, Process Chemistry, Computational Chemistry, Chemical Biology, Biocatalysis, and DNA-Encoded Library Chemistry Technologies. GSK Chemistry Research and Development is located at four major research sites around the world: Upper Providence, Pennsylvania (Hub), Stevenage, England (Hub), Cambridge, Massachusetts, and Tres Cantos, Spain. Collectively, we strive to deliver a portfolio of first in class, transformational medicines underpinned by innovative and cutting-edge technologies designed to drive efficiency and success in all our programs at all stages. Representing a variety of diverse cultures, backgrounds, interests, and expertise, GSK Chemistry is actively recruiting passionate, high-energy chemists looking to grow their career, contribute to a variety of programs and help drive our success in delivering world class medicines to patients. *Subject to approval of reasonable request, GSK is a modern employer and offers flexible working hours and conditions.*

**Where We Are**

GSK’s US R&D Hub is located in Upper Providence, PA in the Philadelphia suburbs. Just 35 miles from Philadelphia International Airport, the Upper Providence site is home to over 3,000 of our R&D staff. With the concentration of such a large number of scientists you will find a culture that inspires innovation and collaboration, emphasizes professional development, and maintains a strong focus on the patients that are at the end of everything we do. Our location benefits from excellent facilities on site and in the surrounding area as well as shuttle services that make the campus accessible *via* public transportation via SEPTA. GSK enjoys the proximity to renowned educational and medical research institutions in Philadelphia, recently dubbed “Cellicon Valley” for the emergence in the medical research and biotech sector with the city and surrounding areas. Recognized in 2019 by National Geographic as one of America’s Top Cities, Philadelphia offers a revolutionary opportunity for you to live, work, and play within a short commute from GSK.

GSK also has a site in Cambridge, Massachusetts which is home to approximately 85 R&D staff, including 25 chemists in our DNA-Encoded Library Technology Group.  The focused nature of the group, coupled with the small size of the site, offers chemists at this location the feel of a biotech company with the resources that come with being part of a larger organization. Conveniently located on the MBTA Red line, the Cambridge site finds itself in close proximity to 8 research universities, numerous colleges and hospitals, and over 1000 biotechnology companies ranging from start-ups to big pharma. Described as the “Center of the Nation’s Biotechnology Industry”, Cambridge provides countless opportunities to attend lectures and interact with external colleagues, fuelling an exciting atmosphere of scientific discovery and collaboration.

**Why You**

Success in GSK thrives on strong interpersonal skills and practical chemistry skills combined with a curious, inquisitive nature and a passion for science. You are equally passionate about developing yourself, developing new scientific methodologies, pushing the limits of innovation, and learning something new every day. You are an excellent team player, able to work with others either in the lab or in the office as well as within cross-functional teams. You are independent and able to plan and execute your own workload and deliver results. Your science is conducted with integrity, safety, and the highest standards. You pride yourself in your chemistry and enjoy science as much as we do.

**Important Information**

All applicants are asked to provide at minimum a CV and research summary to be considered for a virtual recruitment interview with GSK. Final interview time slots will be with due time to make changes; communication on how to address those exceptions will be communicated when schedules are announced. During your time slot, please come prepared with a summary presentation of your research of approximately 15 minutes. Successful summaries will highlight not only accomplishments but also feature particular challenges and problem-solving situations.

GSK does not support the use of Zoom. Your interviewer will communicate ahead of time the use of Webex or Microsoft Teams for the day, both downloadable or usable in a web-based format. We look forward to meeting you!

**Contact**

For questions about these descriptions or general information about GSK or its chemistry departments, please reach out to

Nicole Goodwin, Ph.D. (Nikki, she/her)

Director, Medicinal Chemistry and Discovery High-Throughput Chemistry

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**Investigator, Computational Chemistry & Molecular Design (US)**

An exciting opportunity is available to support and aid in the development of new pharmaceutical products through computational molecular design. The primary focus of this role will be to support preclinical research and development by identifying relevant biological targets, generating and optimizing candidate medicines and derisking of these therapies.

**Basic qualifications**

* Ph.D. or equivalent in Computational Chemistry, Cheminformatics, Computational Biology, Physics, Biophysics or Chemistry
* Experience in molecular modeling, protein structure analysis and small molecule optimization
* Experience using bioinformatics methods for protein structure prediction and design.
* Knowledge of cheminformatics, and QSAR methods
* Competent working in a Linux/Unix environment
* Proficient in one or more programming languages (e.g. Perl, C/C++, Java or Python)
* Demonstrated ability to work in multi-disciplinary matrix teams, displaying excellent interpersonal skills
* Strong organizational and communication skills (both written and oral), with the ability to liaise with scientists and external collaborators at all levels
* Ability to independently review and appraise scientific literature
* Ability to present data in team meetings and participate in writing of abstracts and publications

**Preferred qualifications**

* Solid foundation in chemistry, physics, computer science, statistics, probability theory and analytics
* Knowledge of drug discovery: medicinal chemistry, toxicology, DMPK, high content imaging and/or screening data analysis
* Deep expertise with molecular simulation and/or quantum chemistry
* Experience in detailed protein:ligand interaction analysis

## Key responsibilities may include:

## Work with medicinal chemistry teams to provide structure-based drug design, QSAR modelling of desired features, and modelling of macromolecular systems.

* Work with biology team members to assimilate data from experiments, optimize those experiments and integrate that data into compound design.

**Investigator, Biocatalysis Chemistry (Upper Providence, PA)**

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An exciting opportunity in the GlaxoSmithKline Synthetic Biochemistry group. The primary focus of this role is to support the discovery and implementation of novel enzyme-based applications at GSK, by participating in the development, screening and optimization of biocatalytic reactions, as well as the exploration of novel applications of directed evolution within GSK’s portfolio of research and discovery. The successful candidate would participate on an interdisciplinary team tasked with providing fit for purpose enzymes to chemistry and biology project teams and broader.

**Basic qualifications:**

* Ph.D. in Chemistry, Biotechnology, Chemical Biology, or related field with 1-2 years relevant experience.
* Significant hands-on experience in the discovery, development and scale-up of organic reactions.
* Experience in enzyme characterization including a background in mechanistic and kinetic studies of enzymatic reactions (Vmax, Km, product inhibition, substrate inhibition, cofactors, redox chemistry).
* Demonstrated ability to work in multi-disciplinary teams, displaying excellent interpersonal, organizational, and communication skills

**Preferred qualifications:**

* Experience in the discovery, development and scale-up of enzyme catalyzed organic reactions.
* Experience with parallel experimentation, high throughput assay development, Design of Experiments, etc.
* Experience in the development of miniaturized biochemical assays to drive enzyme evolution toward conditions relevant to industrial manufacturing.
* Understanding of protein engineering/expression tools and techniques.
* Broad knowledge of organic chemistry, with particular emphasis on biocatalysis and chirality.
* Familiarity with or interest in learning automation equipment.

**Key responsibilities may include:**

* Interact with process chemists and engineers to determine process parameters under which an enzyme must perform.
* Develop appropriate surrogates for process conditions in order to authentically replicate target process conditions in high throughput
* When appropriate, develop immobilized process conditions for enzyme candidates generated from protein engineering efforts.
* Express, test and rank enzyme variants in both HTP and shake flask scales.
* Work with molecular biologists, bioinformaticians, and process chemists to identify and resolve barriers to enzyme evolution.
* Manipulate large-scale datasets using MS Excel and equipment interfacing programs.
* Liaise with scientists & external collaborators at all levels
* Generate conclusion reports, present data in team meetings & participate in writing of abstracts & publications
* Conduct scientific work programs and make contributions both independently and as a member of a team with other R&D staff
* Work through problems logically and apply innovative solutions (appropriate to grade)
* Adopt new technologies and apply them to project work
* Maintain customer focus, motivate self, and demonstrate a high degree of urgency
* Use scientific literature and database resources in the execution of project related work
* Exhibit flexibility, being open to new ways of working