



Position: Senior Bioinformatician at the Data Science for Health (DaSch) Laboratory, Toscana Life Sciences Foundation, Siena (Italy).

Start/Duration: July 2021/2 years (negotiable)

[Toscana Life Sciences \(TLS\) Foundation](#) is a non-profit research bio-incubator accounting for ~400 associates amongst the twenty biotechnology companies incubated and the ten research groups and projects, including two ERC-funded labs, and has a cutting-edge asset of research instrumentation to conduct front-line biomedical research.

To create the biomedicine of the future, TLS is establishing a **Data Science for Health (DaSch) Laboratory** under the strategic direction of [Dr. Duccio Medini](#), partnering up with the broad, existing ecosystem, including the [MAD Lab](#) laboratory led by [Dr. Rino Rappuoli](#) and the [CERM](#) Foundation led by [Prof. Fabio Pammolli](#).

The **DaSch Lab** will use Computational Immunology, Population Genomics, in-silico Structural Biology, Artificial Intelligence and Bioinformatics to transform biomedical research from early discovery of vaccines and monoclonal antibodies to health technology assessment at the societal level.

We invite highly motivated Bioinformaticians to apply for a Senior Bioinformatician position that will support the Data Scientists and other scientific roles within the Lab by designing, developing, integrating, optimizing and engineering data, tools and libraries for Bioinformatics; Machine Learning and advanced data analytics and visualization.

WHAT WE OFFER

- Unfettered flow of biological data from state-of-the-art biomedical facilities, clinical data from industrial-scale development projects and real-world data from a consolidated network of national and international collaborations.
- A dynamic ecosystem of young investigators with different expertise, from immunology and microbiology to cancer immunotherapy, bioinformatics and topological data analysis, and active projects at the forefront of the [fight against COVID-19](#) and anti-microbial resistance.
- Extensive collaborations with [Glaxo Smith Kline \(GSK\) Vaccines](#) and other pharmaceutical companies, based on the same [campus](#) as TLS, and with various industrial and academic research institutions around the world.

WHAT YOU WILL LEARN/DO

- Develop and implement state-of-the-art bioinformatic strategies for experimental design, computational modeling, data collection and quality control, data analysis and reporting, scientific interpretation of experimental and modeling results.
- Establish collaborations within and outside the TLS ecosystem, integrating data science and bioinformatic capabilities with experimental facilities and biomedical scientists, transforming dataflows into biomedical knowledge.
- Develop, establish and run on a day-by-day basis bioinformatic and data analysis pipelines.
- Present results in internal and external fora, maintaining world-class scientific excellence standards.

- Identify funding opportunities to develop the computational/experimental interface, coaching and mentoring junior fellows in the lab.
- Act as the internal reference for Bioinformatics in interdisciplinary project and committees
- Contribute to developing TLS's computational and data management strategy/infrastructure.

WHO WE ARE LOOKING FOR

A Senior Bioinformatician with

- PhD in bioinformatics, computational biology or equivalent disciplines, plus 3 or more years of post-doctoral experience in bioinformatics
- Strong publication record in bioinformatics/computational biology
- Solid track record of computational methods developed for the identification of structural genomic variants, CNVs, starting from massive sequential data
- Proven ability in the development of user interfaces and tools
- Excellent communication skills, to communicate complex results effectively to non-technical audiences
- At least 5 years of experience in analyzing the sequencing data and developing bioinformatics pipelines for setting up platforms allowing data sharing, preferably experienced with multiple omics data analysis
- Knowledge about AI, machine learning, pattern recognition, data mining and statistics is preferred
- Experience on single cell transcriptomic analysis, analysis of human and animal transcriptomes
- Familiarity with relevant programming languages (ideally Python, R, Bash)
- A passionate on bioinformatics and with motivation to work on innovative and ambitious projects in an open, dynamic team
- Strong analytical, problem solving and project delivery skills.

To apply or inquire for further information, please send a motivation letter, your CV and email address of two referees to HR@toscanalifesciences.org.

Information about Siena

TLS is located inside the scientific campus of GlaxoSmithKline, in proximity of the city centre of Siena, one of Italy's most beautiful medieval towns in the heart of Tuscany. It is filled with fine examples of Gothic architecture and has one of the world's most unique piazzas - Piazza del Campo, a vibrant and lively atmosphere due to numerous cultural events and the presence of a large University campus. The city and surrounding area (Chianti, Florence etc.) have plenty of interesting places to visit within the reach of public transport and are close to international airports (Pisa, Florence, Bologna, Rome).