KYTOPEN

JOB DESCRIPTION

Title: Computational Biologist, for Kytopen

Overview

Kytopen is an MIT spinout streamlining the engineering of a wide array of human and human-derived cells for use in next-generation cell therapies, with the goal of expanding access to powerful new living medicines. We enable transformative therapies with our patent-pending continuous *Flowfect®* cell engineering platforms. The non-viral *Flowfect®* technology is a fast, scalable, and gentle gene delivery process that yields billions of high-quality engineered cells in minutes while maintaining cell health and function. We seek passionate, pioneering individuals to join the team on this mission.

Summary

The Computational Biologist (or Computational Systems Biologist) will work with the Science and Engineering teams, supporting biology efforts at Kytopen. The qualified candidate will demonstrate the ability to independently execute computational modeling and multivariate data analysis as required for the development and use of the Kytopen *Flowfect®* cell transfection systems. This individual will work in coordination with all internal and external personnel and resources required for the realization of the required data analytics.

Qualifications and Skills

The ideal candidate will be a high energy, confident individual possessing strong leadership and communication skills with an M.S. or Ph.D. in a Computational Biology, Computational Systems Biology, Bioinformatics, Statistics, or related degree and ideally have 1-3 years of industry or research experience.

Responsibilities and Duties (What we need)

- Build systems and processes for statistical modeling and data analysis to further define and improve the *Flowfect®* platform technology
- Define biological, process, and device understanding via systems modeling and data analytics of historical and emerging data
- Collaborate with the Biology team to design studies focused on delivery of molecules to Hematopoietic Stem and Progenitor Cells (HSPCs) and primary immune cells to optimize assays
- Support, analyze, and optimize output of analytical assays, including flow cytometry, ELISA, and PCR
- Help design and implement data-centric workflows for Kytopen data storage and processing to consolidate existing and future data collections
- Using data-driven insights, identify methods and processes that further define and improve the *Flowfect®* technology platforms
- Support development of full-laboratory data systems and information management

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Requirements (About you)
What:

- Minimum of 2+ years of data analytics experience in a computational biologics or bioinformatics role in industry or academia
- Solid understanding and command of machine learning techniques
- Experience analyzing large datasets and patient cohorts
- Understanding or familiarity with directly implementing computational modeling approaches to systems biology such as Bayesian inference, deterministic PDEs, or Random Forest classification
- Experience in R, Python, or a similar statistical programming language is required
- Experience in database management systems using SQL (or PostgreSQL) is preferred
- Strong organizational, analytical, problem-solving, root-cause-analysis, and trouble-shooting skills
- Strong written and verbal communication skills
- Cell and gene therapy analytics experience, specifically with Next Generation Sequencing data and cell engineering efficiency analysis

How:

- Ability to work within a diverse workforce and provide a positive and motivational work environment
- Strong soft skills in order to interface with and between the Biology and Engineering teams
- Comfortable with asking questions and brainstorming out of the box approaches
- Initiative and ability to implement alternative or new approaches to data analysis by adapting from other industries and fields
- Entrepreneurial and comfortable in a fast-paced environment
- Ability to adapt to shifting constraints while maintaining high performance and morale
- Self-motivated and collaborative, capable of independent investigation, and with excellent time management
- Creative and adaptable in identifying and implementing best practices across team
- Demonstrated leadership ability to exemplify Kytopen's values of: Impact, Passion, Integrity, Resilience, and Inclusivity

Preferred (More about you…)
- Ph.D. in Computational Biology or other related field