Interested Parties should contact:
Keith Ryan kryan@geneousbiomedical.com
508 359 4120

Director of Network Modeling **Princeton, NJ**

Job Description

The Director of Network Modeling is a Science Director role within the Discovery Systems Biology Team, and will be a member of the Computational Modeling group within Systems Biology. The Director of Network Modeling will lead the development, integration and interpretation of Computational Models that represent the molecular networks and disease mechanisms underlying Huntington's disease (HD) and in potential responses to treatment. Working both independently, and by coordinating the efforts of collaborators, s/he will interrogate these models to help define disease mechanisms, drug mechanisms of action, mechanisms of toxicity, and biomarkers that can be used clinically to follow these mechanisms in patients.

The Director of Network Modeling will lead the development of new therapeutic strategies to intervene in disease processes. Working with the Discovery Systems Biology teams, s/he will interrogate these mechanisms to identify compensatory effects, in the furtherance of the development of actionable therapeutic strategies for treatment of HD. In addition, the Director of Network Modeling will work with Focus Area Teams to develop and interrogate models for these disease mechanisms, in order to facilitate the development and refinement of therapeutic strategies for the treatment of HD. This role is both a scientific management role, as well as an individual contributor role.

Job Responsibilities

- Lead the integration and analysis of preclinical and clinical 'omics data within the biological and disease context to enable the development of systems models for HD.
- Analyze, interpret and leverage of computational network models of biology (logical, causal, etc.) that describe aspects or the entirety of HD disease mechanisms
- Develop and lead collaborations with leading academic and commercial partners to further the development, integration, and interpretation of computational models of HD.
- Evaluate computational models to define potential therapeutic interventions for HD.
- Participate across internal teams, providing direct support for the key objectives for programs.
- Contribute to the developing therapeutic strategies that will drive experimental interventions to support and advance drug discovery
- Identify appropriate models for testing therapeutic strategies, through comparative modeling
- Collaborate with leading pharmaceutical and academic scientists, working together to solve the biological challenges of Huntington's disease.

Qualifications

- Strong scientific problem solving skills, an advanced degree in cellular or molecular biology, computational biology or bioinformatics (PhD or MD) with a strong research background.
- A strong affinity for modeling and hypothesis development and testing in a collaborative research environment, and a strong desire to learn new areas and skills.

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- Demonstrated ability to work collaboratively in a technical, interdisciplinary team oriented environment, including other Scientists, as well as software engineers, statisticians, knowledge modelers and project managers and with external academic and industrial partners
- Strong network modeling skills, with experience with one or more systems biology modeling methods/platforms
- Strong computational biology skills, with significant experience analyzing and interpreting high-throughput, genome-scale data
- Strong biological skills, with experience extracting biological hypotheses from computational results. Neurobiology background preferred, but not required
- Knowledge of basic statistics, proficiency in scripting in R and intermediate SQL skills
- Deep understanding of core gene expression profiling techniques and algorithms
- Excellent understanding of Bioinformatics data and data types
- Excellent understanding of Bioinformatics community resources
- Significant post-doctoral experience or the equivalent work experience.
- Excellent written and oral communication skills, and effective interpersonal skills necessary for the coordination of a large network of external global collaborators
- Evidence of being highly self-motivated and an ability to work independently
- Able to travel to the CHDI's Los Angeles CA office as well globally and nationally to interact with collaborators

Additional Skills

- Experience with causal modeling and/or Bayesian network modeling.
- Experience in Network modeling to an applied drug discovery environment
- Experience supervising external collaborators and contracts

Our Client:

Our client is a privately-funded, not-for-profit, biomedical research organization that is exclusively dedicated to rapidly discovering and developing therapies that slow the progression of Huntington's disease (HD). Their scientists work closely with a network of more than 600 researchers in academic and industrial laboratories around the world in the pursuit of these novel therapies, providing strategic scientific direction to ensure that our common goals remain in focus. This helps bridge the translational gap that often exists between academic and industrial research pursuits and that adds costly delays to therapy development. In its role as a collaborative enabler, they seek to bring the right partners together to identify and address critical scientific issues and move drug candidates to clinical evaluation as rapidly as possible. Our activities extend from exploratory biology to the identification and validation of therapeutic targets, and from drug discovery and development to clinical studies and trials.