



Open Postdoctoral Position—LINCS Fellow

A Unified Set of Biological Mechanisms that Harmonize the MCF10A Common Project Data

A prestigious, collaborative postdoctoral opportunity is available in the Birtwistle Lab (www.birtwistlelab.com) within the NIH Library of Integrated Network Cellular Signatures (LINCS) consortium (www.lincsproject.org). This LINCS Fellow position provides a unique training experience amongst leading systems biology laboratories involved within the consortium, and has specific interactions with the Heiser, Gray and Sorger labs. The position offers a highly competitive salary, and commensurate with this, an elevated status within the consortium to organize, mobilize and disseminate LINCS work into long-lived activities.

Project: The MCF10A common project is leveraging the breadth of LINCS experimental assays to generate a perturbation-response dataset of unprecedented depth for a single mammalian cell line. This position combines the MCF10A common project data with mechanistic kinetic models and text-mining approaches to propose unified mechanisms of cell proliferation and death signaling on an unprecedented scale. Potential applications are many, but we focus on the following. Can we predict synthetic lethality and drug combination responses as a function of microenvironmental context?

Logistics: The primary location of the Fellow will be in the Birtwistle Lab, located in the Chemical and Biomolecular Engineering Department at Clemson University. Significant travel and interactions will occur with the Data Coordination and Integration Center (DCIC) in New York City (Ma'ayan Lab), the Microenvironment Perturbation Data Generation Center in Portland, Oregon (Heiser/Gray Labs), and the Harvard Medical School Data Generation Center in Boston, Massachusetts (Sorger Lab). The appointment is for ~2.5 years, with an aim to start by January 2018 (if not sooner).

Requirements: Ph.D related to Systems Biology. Experience with kinetic modeling and computational biology is required.

Contact: Send CV with at least three references to Marc Birtwistle (mbirtwi@clemson.edu).

About the Birtwistle Lab: The Birtwistle Lab combines computational and experimental methods to understand how cells make decisions, focusing on single cell methods to elucidate how phenotypic variability arises from noisy signaling. See the lab website for more information (www.birtwistlelab.com).

About LINCS: The NIH-funded LINCS consortium is rooted in the idea that observing perturbation responses across assay and cell types provides a wealth of predictive information about the underlying biology, and that providing clear, timely and open-access to such data is an instrumental aspect of its value. There are six data generation centers and one data coordination center spread across the United States.

About Clemson University: Ranked as the 23rd best national public university by *U.S. News & World Report*, Clemson is a science- and engineering-oriented college dedicated to teaching, research and service. Founded in 1889, we remain committed both to world-class research and a high quality of life. Our beautiful college campus sits on 1,400 acres in the foothills of the Blue Ridge Mountains, along the shores of Hartwell Lake.