

Faculty Positions in Biological Data Sciences at NC State

As part of the Chancellor's Faculty Excellence Program (CFEP), NC State University seeks three outstanding faculty members (tenure/tenure track) to form a new interdisciplinary faculty cluster in High-Dimensional Integration of Biological Systems. Successful candidates will be expected to perform research at the interface of two or more existing NC State clusters, of which approximately half involve biology and medicine (<https://facultyclusters.ncsu.edu>). Although the positions are envisioned as appropriate for advanced Assistant or Associate Professor candidates, applications for Full Professor rank will be considered.

The new cluster seeks faculty members with expertise in the following areas:

- High-throughput organizational biology and environmental multi-scale modeling. New technologies in measuring and screening biological systems at the molecular and cellular level will foster prediction of organismal behavior from individual components, with applications including computational toxicology, predictive epidemiology and epigenetics, tissue engineering, and modeling of population dynamics.
- High-dimensional analyses. The 'omics revolution has made remarkable progress in discovering biological associations, assaying the states of cells and tissues, and assessing the state of microbial communities. However, increasing specialization limits the ability to benefit from cross-fertilization across analysis subfields. A burgeoning area in statistical methodology describes and takes advantage of emergent properties of high-dimension, low-sample size data, with profound implications for the integrative analysis of high-throughput data streams.
- 4D+ image analytics. As the ability to capture and store high resolution images and video increases, so does the need for new methods to rapidly and effectively model this multidimensional data, in order to provide novel insights into biological systems. Application areas may be as diverse as monitoring the topological landscape of a tissue or organ over time, quantifying the dynamic protrusive behavior of migrating cells in four dimensions, defining cellular properties in bio-printed 3D matrices, or localizing single molecules in a living cell.

Minimum requirements include a Ph.D. in a relevant field from an accredited institution, with experience appropriate to rank. Applicants should submit a cover letter, curriculum vitae, contact information for three references, and a research statement relevant to the cluster goals. Online application instructions at <https://jobs.ncsu.edu/postings/90314>. Questions about the positions may be directed with a subject line "HIBS" to Fred Wright (fred_wright@ncsu.edu).

AA/EOE Statement. *NC State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, gender identity, age, sexual orientation, genetic information, status as an individual with a disability, or status as a protected veteran. Individuals with disabilities requiring disability-related accommodations in the application and interview process, please call 919-515-3148. Final candidates are subject to criminal & sex offender background checks. Some vacancies also require credit or motor vehicle checks. If highest degree is from an institution outside of the U.S., final candidates are required to have their degree verified at www.wes.org. Degree must be obtained prior to start date. NC State University participates in E-Verify. Federal law requires all employers to verify the identity and employment eligibility of all persons hired to work in the United States.*