NC STATE UNIVERSITY

CHANCELLOR'S FACULTY EXCELLENCE FACULTY (CFEP)
IN DATA ANALYTICS
(Open Rank - Assistant/Associate/Full Professor)

NC State University is recruiting **five faculty** to play a central role in an initiative to build a **Center for Translational Predictive Biology (CTPB).** The five incoming faculty are expected to synergize with existing faculty to build an internationally-recognized center focused on developing integrated systems and analytical methods that can predict in vivo responses from in vitro systems. Areas of interest include mathematical & statistical modeling/machine learning, organoid biology, microphysiological systems (organ-on-chip), drug delivery, and whole animal physiology.

As a component of this five-faculty cluster initiative, the Chancellor's Faculty Excellence Program, NC State University seeks one outstanding faculty in the area of mathematical & statistical modeling/machine learning to expand the interdisciplinary faculty cluster on **Translational Predictive Biology (TPB).** Together with NC State's existing strength in regenerative medicine and data sciences, this expanded cluster will propel NC State to the forefront of efforts to define new principles in the development and application of data analytics and mathematical modeling to predict clinically-relevant biological outcomes using in vitro engineered tissue systems and in vivo models, and will play a central role in the development of the Center for Predictive Biology.

About the Position
We are interested in individuals whose expertise is in the computational realm but who can bridge experiment and theory and have the ability to translate research outcomes to address biomedical challenges. Demonstrated collaboration as a member of an interdisciplinary team is essential. Successful candidates will engage in transformative research which integrates diverse data inputs from increasingly complex in vitro and in vivo systems and utilizes mathematical or statistical modeling and/or data analytics to develop practical, accurate predictive systems. The cluster seeks an individual with expertise in developing innovative approaches to improve:

- Multi-modal data integration and fusion
- Machine learning/artificial intelligence for applications to multi-omics
- Mathematical modeling of complex biological systems

Hiring may occur at the level of Assistant, Associate, or Full Professor. **The home department is open and will be determined with the applicant's input and their credentials and research fit.** Hires will be expected to provide key leadership in data science and its application

in predictive biology, teach existing courses, and develop specialized courses in their area of expertise.

Minimum requirements include a PhD in a relevant field from an accredited institution. Interested candidates should submit: a CV, a cover letter describing prior interdisciplinary research efforts and how their research prospectus fits the position, a research plan (max 2 pages), a teaching statement (max 1 page) and contact information for 3 references. Materials for consideration will be accepted electronically via https://jobs.ncsu.edu/postings/189353. Review of applications will begin immediately and continue until the positions are filled. **Please note that this is position was reopened August 2023.**

NC State University provides a vibrant environment for research, teaching and mentoring across disciplines: ample opportunities will be available for collaborations with existing faculty and other newly hired colleagues in the Translational Predictive Biology (TPB) cluster. NC State's location in the Research Triangle also facilitates interaction with faculty at Duke University and the University of North Carolina at Chapel Hill, as well as with industry and government agencies.

Confidential inquiries and nominations should be directed to: CFEP position Co-chairs Jorge A. Piedrahita japiedra@ncsu.edu) or Rohan Shirwaiker rashirwaiker@ncsu.edu)

Position announcement and application https://jobs.ncsu.edu/postings/189353

The Chancellor's Faculty Excellence Program

NC State launched the Chancellor's Faculty Excellence Program in 2011 as part of the 2011-2020 strategic plan to bring the nation's best and brightest faculty to campus. The program enhances the university's commitment to supporting and expanding interdisciplinarity through outstanding research and scholarship, and strengthens NC State's historic expertise in the sciences, engineering, math, design, textiles, humanities and social sciences, and education. The program's efforts align with NC State's land-grant mission and vision, and build momentum toward strategic goals outlined in the new strategic plan, Wolfpack 2030: Powering the Extraordinary.

The current 20 clusters have been selected on these important criteria:

- Ability to achieve national eminence in proposed topic
- Alignment with university strategic priorities
- Demonstration of real interdisciplinarity
- Potential to build on an existing university strength (or strength of the existing assets) Opportunity for faculty to engage in both research and teaching of proposed topic
- Ability to attract funding
- Commitment to share resources and physical infrastructure
- Commitment to interdisciplinarity and collaboration among multiple colleges
- Demonstration of a balanced hiring plan with clear leadership

- Potential to attract diverse faculty

The Chancellor's Faculty Excellence Program is supported and managed by the Office of University Interdisciplinary Programs. The program has grown from an initial 12 clusters to 20 clusters today.

- Bioinformatics
- Carbon Electronics
- Data-driven Science
- Digital Transformation of Education
- Emerging Plant Disease and Global Food Security
- Environmental Health Science
- Forensic Sciences
- Genetic Engineering and Society
- Geospatial Analytics
- Global Environmental Change and Human Well-Being
- Global Water, Sanitation and Hygiene
- High-dimensional Integration of Biological Systems
- Leadership in Public Science
- Microbiomes and Complex Microbial Communities
- Modeling the Living Embryo
- Precision Medicine
- Sustainable Energy Systems and Policy
- Synthetic and Systems Biology
- Translational Regenerative Medicine (now Translational Predictive Biology)
- Visual Narrative

More than 75 current NC State faculty have been hired through the program. In addition to recruiting and retaining outstanding faculty and promoting NC State's continued excellence and national renown, the Chancellor's Faculty Excellence Program cultivates a growing culture of interdisciplinarity at the university. We invite you to explore more information about the Chancellor's Faculty Excellence Program and this cluster at http://facultyclusters/ncsu.edu.

Related programs and facilities at NC State:

- Bioinformatics Research Center (BRC)
- Biomanufacturing Training and Education Center (BTEC)
- Comparative Medicine Institute (CMI)
- Data Science Academy (DSA)
- Genetics & Genomics Academy (GGA)
- Integrative Sciences Initiative (ISI)

About NC State

At NC State, we create prosperity for North Carolina and the nation. We value diversity, equity, inclusion and justice. We began as a land-grant institution grounded in agriculture and engineering. Today, we're a pre-eminent research enterprise that excels across disciplines.

NC State is a powerhouse in science, technology, engineering and math. We lead in agriculture, education, textiles, business and natural resources management. We're at the forefront of teaching and research in design, the humanities and the social sciences. And we're home to one of the world's best colleges of veterinary medicine.

Our more than 37,000 undergraduate and graduate students learn by doing. They pursue original research and start new companies. They forge connections with top employers and serve communities local and global. Through it all, they enjoy an outstanding return on investment.

Whether it's Princeton Review ranking NC State among the nation's best values for universities, Money magazine naming it the No. 1 best college for your money in North Carolina, or U.S. News & World Report ranking NC State among the top 10 best values in public higher education, the university has many reasons to be proud.

Each year, NC State adds $6.5 billion to the statewide economy, equivalent to creating more than 90,000 new jobs. That represents a significant return on investment for the citizens of North Carolina in the form of research advances, innovative technologies, successful companies, skilled graduates and new jobs waiting for them.

Our 9,400 faculty and staff are world leaders in their fields, bridging the divides between academic disciplines and training high-caliber students to meet tomorrow's challenges. Together, they forge powerful partnerships with government, industry, nonprofits and academia to remake our world for the better. We expect everyone to give of their talents, skills, time and effort to make NC State an environment of inclusive excellence for all.