TENURE-TRACK ASSISTANT PROFESSOR POSITION IN OMICS AND PREDICTIVE MODELING APPLICATIONS IN PLANT BREEDING AVAILABLE IN THE DEPARTMENT OF PLANT SCIENCES, NORTH DAKOTA STATE UNIVERSITY

This is a 12-month tenure-track position located in the Department of Plant Sciences at North Dakota State University (NDSU) with 95% research and 5% teaching responsibilities. The successful candidate will conduct omics and predictive modeling research that addresses agronomic performance, biotic and abiotic stresses, and end-use quality of wheat and other crops of economic importance in the northern Great Plains. Ultimately, the genomic and other omics data will be used to accelerate genetic gains, resource allocation, and overall improvement of efficiencies in plant breeding.

The successful candidate will develop a nationally and internationally recognized, externally funded research program focused on modern plant breeding techniques and applications (i.e. genomics and other emerging omics). The successful candidate will collaborate with NDSU's plant breeding programs, other North Dakota Agricultural Experiment Station (NDAES) scientists located on the NDSU campus, and scientists located at NDSU Research Extension Centers (RECs) across the state. The successful candidate will also collaborate closely with the NDSU Big Data Pipeline Team and Precision Agriculture Group in order to develop new breeding tools and techniques to be shared with NDAES scientists across the state.

The successful candidate will:

Develop new breeding tools and techniques that combine genomics, and other emerging omic approaches to enhance the efficiency of developing improved hard spring wheat and other plant breeding programs in the Department of Plant Sciences.

The successful candidate will participate actively in graduate education by chairing graduate committees, serving on graduate committees, supervising thesis and dissertation research, supervising undergraduate research, and publishing the results with their graduate students and postdoctoral scientists.

The successful candidate will seek extramural funding to support their research program.

The successful candidate will develop a new graduate level course.

The successful candidate will provide reports on their research in peer-reviewed journals and in presentations at national and international meetings.

Required Qualifications:

An earned Ph.D. in Genetics and/or Plant Breeding, or a closely related discipline emphasizing genomics and other omic approaches.

Demonstrated strong proficiency and experience in using bioinformatic and computational tools in the analysis and interpretation of high-throughput data sets and data mining.

Demonstrated experience on integration of genomics and other omics data into qualitative and quantitative genetics framework to estimate/predict agronomic, biotic and abiotic stresses, and quality traits.

Demonstrated knowledge in applied plant and/or animal breeding.

Demonstrated experience publishing in peer-reviewed journals.

Demonstrated ability to work as a member of a multi-disciplinary and multi-cultural team.

Demonstrated ability to contribute to an environment of respectful and productive working relationships with those with whom you interact.

Effective written and oral communication skills.

Have a valid US driver's license or the ability to get one.

Preferred Qualifications:

Demonstrated experience in processing, storing, and analyzing genomics and other omics data using predictive modeling techniques.

Experience in utilizing software in genomics and other omics applied into plant breeding.

Experience in algorithm and/or pipeline development.

Demonstrated ability to work with commodity groups and/or other stakeholders.

Demonstrated evidence of success in obtaining extramural grant funding.

Demonstrated experience in teaching.

Application materials to submit:

A letter of application discussing how the stated qualifications are met.

Detailed Curriculum Vitae.

Official academic transcripts from all institutions attended.

Pprovide a one-page statement describing your research and teaching philosophies for this position.

Provide names, phone numbers, institutional addresses, and email addresses of three current references from the most recent positions held.

Screening will begin 7/27/22

Benefits:

NDSU offers a comprehensive benefits package with includes single or family health insurance coverage with premiums paid for by the university – with an effective date for new employees the first of the month following date of hire. Other benefits include, wellness benefits, basic life insurance, retirement plan, tuition waiver, annual leave, EAP, sick leave and holiday pay. Optional benefits include supplemental life, dental, vision, long-term care insurance, flexible spending account, and supplemental retirement plans.

Position Information

About Us:

North Dakota State University is distinctive as a student focused, land-grant, research university. Our main campus is located in Fargo, ND with Extension Service and Research Experiment Station locations across the state.

NDSU is the best college in ND, according to Money Magazine (September 2018). NDSU was named a 2019 Best Value College by Forbes. Fargo made Livability.com's top 10 list of cities to find a job and ranked at #11 for best places to live overall.

No Smoking Notice:

As an employer, the State of North Dakota prohibits smoking in all places of state employment in accordance with N.D.C.C. § 23-12-10.

EO/AA Statement:

North Dakota State University is an Equal Opportunity employer and all qualified applicants will receive consideration for employment without regard to age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable.

Veteran's Preference Notice:

This position is subject to North Dakota Veteran's Preference requirements.

Reasonable Accommodation Information:

North Dakota State University is committed to providing access and reasonable accommodation in its services, programs, activities, education, and employment for individuals with disabilities. To request disability accommodation in the application process, please contact Human Resources at 701-231-8961 or ndsu.hr@ndsu.edu.

Land Acknowledgement

We collectively acknowledge that NDSU, a land grant institution, on the traditional lands of the Oceti Sakowin (Dakota, Lakota, Nakoda) and Anishinaabe Peoples in addition to many diverse Indigenous

Peoples still connected to these lands. We honor with gratitude Mother Earth and the Indigenous Peoples who have walked with her throughout generations. We will continue to learn how to live in unity with Mother Earth and build strong, mutually beneficial, trusting relationships with Indigenous Peoples of our region. (see www.ndsu.edu/inclusioncouncil/native_american_initiatives/).