

RCA UPDATE

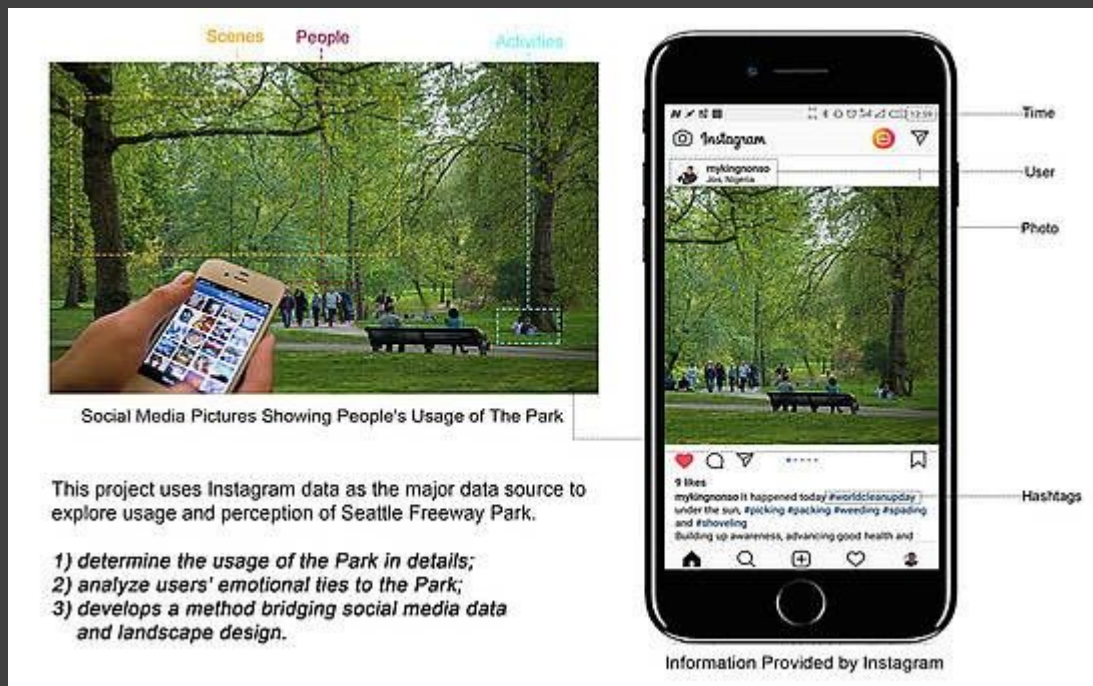
December 9, 2019

NDSU assistant professor earns ASLA Research Award

NDSU assistant professor of landscape architecture Yang Song earned an Honor Award in the Research category of the annual American Society of Landscape Architects (ASLA) Professional Awards. The project, titled “Using Social Media Data to Understand Site-Scale Landscape Architecture Design: A Case Study of Seattle Freeway Park” was a collaboration between Song and Oklahoma State University assistant professor of horticulture and landscape architecture Bo Zhang.



Song and Zhang’s project examined Instagram posts from more than 2,000 users over a three year period to determine how the public used Freeway Park and what types of emotional ties they had to the environment. The researchers discovered new perspectives and insights about public space design and they learned about the public’s associations of park usage and design features, publicity, and climate. In addition, they also developed a procedure for analyzing and interpreting site-scale crowdsourcing data, which they hope will be valuable to the knowledge expansion of the landscape design and management discipline.



The 2019 Award Jury highlighted the innovative use of public social media data and how the researchers could utilize it to determine public attitudes and behaviors. They noted, "This inventive analytical method allows landscape architects and city officials to gain insights into public-space design...this approach to research gives designers a new way to gauge reactions to their work, literally through the eyes of the public they serve."

Song's research interests lay at the intersection of landscape architecture, architecture, and urban design with a focus on the creation of new design frameworks and methodologies which can enhance the human understanding and interaction with outdoor environments. He has a long-standing interest and expertise in the application of digital technology in design, especially on the topics of parametric design, building information management (BIM), hydrological modeling, GIS mapping, and fabrication. Song creates digital tools and workflows that are targeted at assisting design thinking and empowering in-depth site analysis.

Founded in 1899, the ASLA is the professional association for landscape architects in the United States, representing more than 15,000 members. The Society's mission is to advance landscape architecture through advocacy, communication, education, and fellowship. Each year, the ASLA Professional Awards honor the best in landscape architecture from around the globe in six categories.

Award recipients receive featured coverage in the ASLA's Landscape Architecture Magazine and in many other design and construction industry and general-interest media. Song and Zhang were honored at the awards presentation ceremony during the ASLA Conference on Landscape Architecture in San Diego, November 15-18, 2019.

More information about Yang and Song's award winning project is available [here](#).

New Uses Forum 2020: Accelerating Ag Innovation and Investment

The Agricultural Utilization Research Institute ([AURI](#)), with partners Compeer Financial and Georgetown University's Rural Opportunity Initiative, is convening the fourth annual New Uses Forum on April 8th & 9th 2020.

The event brings together knowledgeable experts on topics related to innovation, development and investment. Their presentations will share indispensable information and experiences, foster meaningful discussion and ultimately produce actionable impact. The event features keynote speakers, panels, and networking opportunities, which will explore innovative

solutions benefiting the agricultural industry.

The New Uses Forum will take place at the Earle Brown Heritage Center in Brooklyn Center, Minnesota. [Sign up for email updates about the event >>](#)

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L'Oreal USA For Women in Science Fellowship

The [L'Oréal USA For Women in Science fellowship program](#) awards five women postdoctoral scientists annually with grants of \$60,000 each for their contributions in Science, Technology, Engineering and Math (STEM) fields and commitment to serving as role models for younger generations. The program is the U.S. component of the [L'Oréal-UNESCO For Women in Science International Fellowships program](#). Celebrating its sixteenth year in the U.S., the For Women in Science program has awarded 80 postdoctoral women scientists over \$4 million in grants.

L'Oréal USA partners with the American Association for the Advancement of Science (AAAS) to manage the program's application and peer-review process. Each year, the program attracts talented applicants from diverse STEM fields, representing some of the nation's leading academic institutions and laboratories.

The application for the 2020 For Women in Science competition is now available at: <https://lorealfwis.aaas.org/>.

Application deadline: January 31, 2020



Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research (R21 Clinical Trials Not Allowed)

This Funding Opportunity Announcement (FOA / [RFA-CA-20-017](#)) solicits grant applications proposing exploratory research projects focused on the early-stage development of highly innovative technologies offering novel molecular or cellular analysis capabilities for basic or clinical cancer research. The emphasis of this FOA is on supporting the development of novel capabilities involving a high degree of technical innovation for targeting, probing, or assessing molecular and cellular features of cancer biology. Well-suited applications must offer the potential to accelerate and/or enhance research in the areas of cancer biology, early detection and screening, clinical diagnosis, treatment, control, epidemiology, and/or address issues associated with cancer health disparities. Technologies proposed for development may be intended to have widespread applicability but must be focused on improving molecular and/or cellular characterizations of cancer biology. Projects proposing the application of existing technologies where the novelty resides in the biological or clinical target/question being pursued are not responsive to this solicitation and will not be reviewed.

This funding opportunity is part of a broader NCI-sponsored [Innovative Molecular Analysis Technologies \(IMAT\) Program](#).

See also: [Advanced Development and Validation of Emerging Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research](#) (R33 Clinical Trials Not Allowed)

Letter of Intent deadline: January 20, 2020

Application deadline: February 21, 2020



NSF EHR Core Research (ECR): Building Capacity in STEM Education Research (ECR: BCSER)

ECR's Building Capacity for STEM Education Research ([NSF 20-521](#)) solicitation supports projects that build individuals' capacity to carry out high quality STEM education research that will enhance the nation's STEM education enterprise and broaden the pool of researchers that can conduct fundamental research in STEM learning and learning environments, broadening participation in STEM fields, and STEM workforce development.

Specifically, ECR: BCSER supports activities that enable early and mid-career researchers to acquire the requisite expertise and skills to conduct rigorous fundamental research in STEM education. ECR: BCSER seeks to fund research career development activities on topics that are relevant to qualitative and quantitative research methods and design, including the collection and analysis of new qualitative or quantitative data, secondary analyses using extant datasets, or meta-analyses.

This career development may be accomplished through investigator-initiated projects or through professional development institutes that enable researchers to integrate methodological strategies with theoretical and practical substantive issues in STEM education. Early and mid-career faculty new to STEM education research, particularly underrepresented minority faculty and faculty at minority-serving and two-year institutions, are encouraged to submit proposals.

ECR: BCSER especially welcomes proposals that pair well with the efforts of [NSF INCLUDES](#) to develop STEM talent from all sectors and groups in our society. Proposers are encouraged to identify topics that support the thrust of NSF INCLUDES projects.

Application deadline: February 28, 2020



NSF: EPSCoR Research Infrastructure Improvement Track-4 - EPSCoR Research Fellows (RII Track-4) - Limited Submission Program

Limited submission grant programs are those that indicate a limit on the number of proposals that may be submitted by an institution for a particular deadline. A selection process becomes necessary if more applicants express interest in applying than NDSU is allowed to submit to the grant program.

NSF EPSCoR Track 4 : Notify RCA by 12/13/2019, 5:00 p.m. if you intend to apply.

The RII Track-4 Fellows program [NSF 18-526] provides an opportunity for *non-tenured* faculty to spend extended periods of time at the nation's premier research facilities. The fellowship period may be used to initiate new collaborative relationships, to expand existing partnerships in ambitious new directions, or to make use of unique equipment not available at the PI's home institution. Successful fellowships will positively impact and potentially transform the recipient's research career trajectory. Any research topic eligible for consideration under NSF's policies will be considered for RII Track-4 support. The fellowship host site may be any academic, governmental, commercial, or non-profit research facility within the United States or its territories.

NDSU is allowed to submit three RII Track-4 proposals to NSF in response to this solicitation, so the Limited Submission process will apply.

Eligible PIs employed by degree-granting institutions of higher education must hold a ***non-tenured faculty appointment***. This may be in the form of a pre-tenure tenure-track position or a long-term non-tenure-track position. RII Track-4 awards

will be made as standard grants. The award amount will not exceed \$300,000 and the project duration will not exceed 24 months. **Only single-PI proposals will be considered. No co-PIs should be included on the proposal.**



NSF Scholarships in Science, Technology, Engineering, and Mathematics Program (S-STEM) - Limited Submission Program

Limited submission grant programs are those that indicate a limit on the number of proposals that may be submitted by an institution for a particular deadline. A selection process becomes necessary if more applicants express interest in applying than NDSU is allowed to submit to the grant program.

NSF S-STEM : Notify RCA by December 20, 5:00 p.m. if you are interested in applying.

A well-educated science, technology, engineering, and mathematics (STEM) workforce is a significant contributor to maintaining the competitiveness of the U.S. in the global economy. The National Science Foundation (NSF) S-STEM program ([NSF 20-526](#)) addresses the need for a high quality STEM workforce in STEM disciplines supported by the program and for the increased success of low-income academically talented students with demonstrated financial need who are pursuing associate, baccalaureate, or graduate degrees in STEM fields.

Recognizing that financial aid alone cannot increase retention and graduation in STEM, the program provides awards to Institutions of Higher Education (IHEs) to fund scholarships and to advance the adaptation, implementation, and study of effective evidence-based curricular and co-curricular activities that support recruitment, retention, transfer (if appropriate), student success, academic/career pathways, and graduation in STEM. The S-STEM program encourages collaborations among different types of participating groups, including but not limited to partnerships among different types of institutions; collaborations of

STEM faculty and institutional, educational, and social science researchers; and partnerships among institutions of higher education and business, industry, local community organizations, national labs, or other federal or state government organizations, if appropriate.

The program seeks to 1) increase the number of low-income academically talented students with demonstrated financial need obtaining degrees in S-STEM eligible disciplines and entering the workforce or graduate programs in STEM; 2) improve the education of future scientists, engineers, and technicians, with a focus on low-income academically talented students with demonstrated financial need; and 3) generate knowledge to advance understanding of how interventions or evidence-based curricular and co-curricular activities affect the success, retention, transfer, academic/career pathways, and graduation of low-income students in STEM.

Scholars must be low-income, academically talented students with unmet financial need who are enrolled in an associate, baccalaureate or graduate degree program, with a major in an S-STEM eligible discipline.

An Institution may submit one proposal (either as a single institution or as subawardee or a member of a Collaborative Research project) from each constituent school or college that awards degrees in an eligible field.

The STEM disciplines supported by the S-STEM program include:

- Biological sciences (except medicine and other clinical fields);
- Physical sciences (including physics, chemistry, astronomy, and materials science);
- Mathematical sciences;
- Computer and information sciences;
- Geosciences;
- Engineering; and
- Technology areas associated with the preceding disciplines (for example, biotechnology, chemical technology, engineering technology, information technology, etc.)

Office of Research Integrity Funding Opportunity Announcements Expected in January

The Office of Research Integrity (ORI) will release three funding opportunity announcements in early January 2020, with application deadlines in April. ORI is expecting to award 6 Research in Research Integrity (RRI) grants with a ceiling of \$150,000 per project, 2-4 Research Integrity Conference (RIC) grants capped at \$50,000 per conference grant, and 2-6 of their newest grants, the Program Development and Evaluation (PDE) grants with a limit of \$100,000 per project. All grants will be one year in duration with anticipated start dates of July 1, 2020.

View the FOA Forecasts

- [Research on Research Integrity Forecast](#)
- [Research on Research Integrity Conferences Forecast](#)
- [Program Development and Evaluations Forecast](#)

USDA-NIFA: Secondary Agriculture Education Challenge Grants Program

The Secondary Education, Two-Year Postsecondary Education, and Agriculture in the K-12 Classroom Challenge Grants ([SPECA](#)) program seeks to: (a) promote and strengthen secondary education and two-year postsecondary education in the food, agriculture, natural resources and human (FANH) sciences in order to help ensure the existence of a workforce in the United States that's qualified to serve the FANH sciences system; and (b) promote complementary and synergistic linkages among secondary, two-year postsecondary, and higher education programs in the FANH sciences in order to advance excellence in education and

encourage more young Americans to pursue and complete a baccalaureate or higher degree in the FANH sciences.

Application Deadline: February 6, 2020



2020 NSF ENG CAREER Proposal Workshop

The National Science Foundation (NSF) CAREER program is a Foundation-wide activity that offers NSF's most prestigious awards in support of early-career faculty who have the potential to serve as academic role models in research and education and to lead advances in the mission of their department or organization. An [NSF CAREER Proposal Workshop](#) focused on engineering will be held March 31 – April 2, 2020 in Arlington, Virginia. The objective of the 2020 NSF ENG Directorate Workshop is to introduce junior faculty who are interested in submitting NSF CAREER proposals to the Directorate for Engineering. The workshop aims to provide individuals with proposal development insights and a forum in which they can interact with NSF program directors and recent NSF CAREER awardees.

Workshop participation will be by invitation, based on applications, and limited to 300 participants who will be selected from the pool of applicants based on:

- applicability of the proposed research to the Directorate for Engineering,
- timeliness and completeness of the application, and
- preference given to those who have not previously attended an NSF Engineering CAREER workshop.

Please review the [application page](#) for further information.

Application Deadline: January 6, 2020



NDSU Core Biology Facility & End of the Year Promotion

The [NDSU Core Biology Facility \(CBF\)](#) assists researchers by providing equipment and resources that might not otherwise be accessible in the standard laboratory. CBF is equipped with BD Accuri C6 flow cytometers, BD FACSJazz cell sorter, Agilent 2100 Bioanalyzer, BioTek Synergy H1 microplate reader, iBright FL 1500 imaging system, Thermo Nanodrop 2000c, and more. In addition, CBF contains the equipment and resources to perform tissue/cell culture. CBF is a reasonable fee structure-based facility with the goal of assisting and promoting research. If interested in touring the facility and/or discussing how the facility may assist your research, please contact the CBF Manager, Dr. Amber Chevalier Plambeck (amber.chevalier@ndsu.edu, 701-231-5334).

From now until the end of the calendar year, the CBF is offering a free training session per laboratory on the Accuri C6 Flow Cytometers. This free training time will benefit laboratories that are interested in using the instruments or need a refresher on proper maintenance. Contact Dr. Chevalier Plambeck (amber.chevalier@ndsu.edu, 701-231-5334) if you are interested in this promotion.



Proposal Development Program

The next session of the RCA Proposal Development Program will focus on **Peer Review**. It will take place on **Tuesday, December 17** from **12:30-1:30pm** in the **Memorial Union Hidatsa Room**. [Register for this session >>](#)

The purpose of the Proposal Development Program is to provide a professional development opportunity for those new to proposal writing or those seeking a refresher to hone proposal writing skills and increase knowledge about funding agency opportunities. [Learn more and see upcoming sessions >>](#)



Have questions, ideas, or suggestions for the RCA Update?

[Contact Us](#)



The Office of Research and Creative Activity (RCA) sends weekly emails to NDSU faculty and staff to provide current information on various topics including funding opportunities, grant program changes, research resources, deadlines, notices, and training.

You are receiving this notification through the NDSU official employee listserv or sub-list. The official listserv refreshes after each pay period.

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