

Entering fall with resiliency

This autumn, students, faculty, and staff are approaching the new term with reliance as the year once again begins under uncertain conditions. Virtual class options and a mix of mitigation strategies (face coverings, physical distancing, and plexiglass partitions) are all components of the new normal for institutions across ND. As new COVID variants emerge, our daily life continues to transform fluidly and we gain a better understanding of what success looks like in uncertain times. We all work together to create research and learning environments that keep everyone well.

The ND EPSCoR State Office staff recently traveled around the state with several ND-ACES researchers. During these travels, we learned that everyone is ready to get back to education and research. The barriers generated by the COVID pandemic have steeled faculty and student resolve to continue their work as planned.

While visiting ND-ACES researcher **Mikhail Bobylev** at Minot State University (pictured below on right), we also learned more about the impacts of the ND EPSCoR State Office Equipment Awards on the Minot State University campus in helping to build scientific inquiry and research and development.



During our visit to Mayville State University (pictured next column), we met with ND-ACES researcher **Khwaja Hossain** (second from left) and had the opportunity to learn more from one of the 2020 ND-ACES Emerging Seed Awardee, **Michael Kjelland** (left), and their students.



During our trip to Valley City State University (VCSU) (pictured below), we visited with researchers **Hilde van Gijssel** (right) and **Nicholas Galt** (left), met their student researchers, and toured the lab spaces at VCSU.



While visiting Dickinson State University (pictured below), we met with administrators (President Stephen D. Easton (top) and Provost Debora Dragseth (top right), faculty (Joshua Steffen, second from bottom right), and staff.



As we embark on a new academic year, we reflect on the impact and the many collective achievements of all of the participants. I hope that you are, and will continue to be, well.

Regards,
Kelly A. Rusch, Ph.D., P.E., BCEE
ND EPSCoR Executive Director



Meet the faculty, staff, and students of ND-ACES video series

ND EPSCoR thanks ND-ACES Center for Cellular Biointerfaces in Science and Engineering (CCBSE) and PROMoting Sustainable Partnerships in Education and Research (PROSPER) faculty and students for allowing our cameras to capture their research and outreach efforts. Visit our [YouTube channel](#) to watch more of our participants talk with ND EPSCoR about teaching, research, and STEM outreach. Learn more on the [ND-ACES webpage](#), the [PROSPER webpage](#), and the [CCBSE webpage](#). The CCBSE and PROSPER are supported by the NSF ND-ACES RII Track-1 cooperative agreement, now in its second year.

ND EPSCoR is grateful to ND-ACES CCBSE researchers for allowing our cameras to tour their interesting STEM spaces during our participating campus visits.

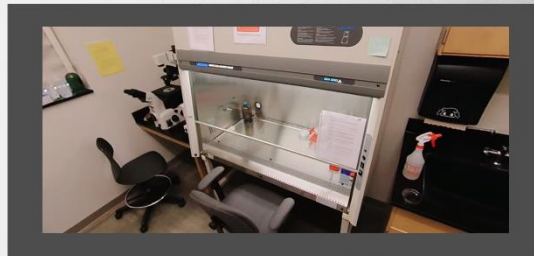
In the first 360° video (linked in the picture below), take a virtual tour of the Toxicology Lab at Valley City State University. The video provides the 360° experience of being in a university lab environment. The 360° video tours allow the viewer to look around the research lab in any direction, creating an immersive virtual experience.

360° Lab Tour



In the video linked in the next column, join **Hilde van Gijssel** (VCSU) on a 360° tour of the Tissue Culture Lab at Valley City State University and then join **Nicholas Galt** (VCSU) on a 360° tour of a science classroom at Valley City State University. These are just a few of the STEM spaces student researchers on the ND-ACES cooperative agreement use every day at VCSU.

360° Lab Tour



360° Classroom Lab Tour



Learn more about Hilde van Gijssel and Nicholas Galt in their meet the researcher videos linked below. **Galt**, Assistant Professor in the Science Department at VCSU, and **van Gijssel**, Professor in the Science Department at VCSU, are both members of the ND-ACES Cellular Systems at Materials Interface Pillar. You can read more about the efforts of this pillar in our [September 2020 issue of News & Notes](#). You can also meet some of the ND-ACES student reserachers at Valley City State University on page four of this issue.



Center for Cellular
Biointerfaces in Science
and Engineering



Hilde van Gijssel
Valley City State University
Professor, Science



Center for Cellular
Biointerfaces in Science
and Engineering



Nicholas Galt
Valley City State University
Assistant Professor, Science



Center for Cellular
Biointerfaces in Science
and Engineering



Svetlana Kilina
North Dakota State University
James A. Meier Associate Professor, Chemistry and Biochemistry

Meet some of the members of the ND-ACES Computation, Machine Learning, and Predictive Modeling Pillar in the below videos. You can learn more about the work of this pillar in the [October 2020 issue of News & Notes](#) and you can read about their outreach efforts and meet the 2020 ND-ACES Cyberinfrastructure Assistants, **Jingyan Fu** (NDSU) and **Zakaria El Mrabet** (UND) in the [August 2021 issue of News & Notes](#).

Meet **Dinesh R. Katti** (NDSU) in the video linked below. Katti is a Jordon A. Engberg Presidential Professor in the Department of Civil, Construction and Environmental Engineering at North Dakota State University. Katti is also the NDSU Lead for the Computation, Machine Learning, and Predictive Modeling Pillar within ND-ACES.



Center for Cellular
Biointerfaces in Science
and Engineering



Dinesh R. Katti
North Dakota State University
Jordon A. Engberg Presidential Professor
Civil and Environmental Engineering

Meet **Svetlana Kilina** (NDSU) in the video linked in the next column. Kilina is a James A. Meier Associate Professor in the Department of Chemistry and Biochemistry at North Dakota State University. Kilina is a researcher in the Computation, Machine Learning, and Predictive Modeling Pillar.

Meet **Jerome Delhommelle** (UND) in the video linked below. Delhommelle is an Associate Professor in the Chemistry Department at the University of North Dakota. Delhommelle is a faculty researcher in the Computation, Machine Learning, and Predictive Modeling Pillar within ND-ACES.



Center for Cellular
Biointerfaces in Science
and Engineering



Jerome Delhommelle
University of North Dakota
Associate Professor, Chemistry

Meet **Deniz Cakir** (UND) in the video linked below. Cakir is an Assistant Professor in the Department of Physics & Astrophysics at the University of North Dakota. Cakir is also a researcher in the ND-ACES Computation, Machine Learning, and Predictive Modeling Pillar.



Center for Cellular
Biointerfaces in Science
and Engineering

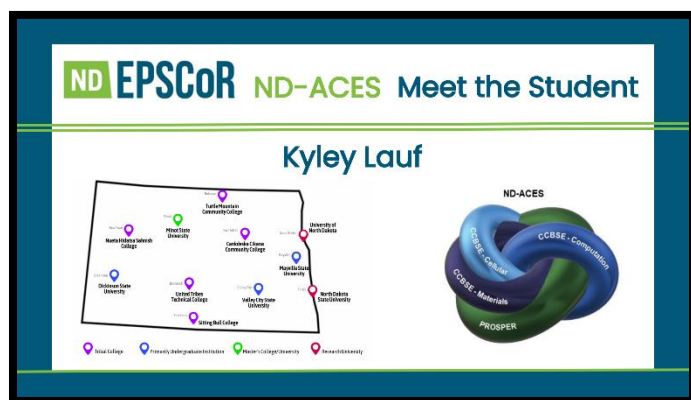


Deniz Cakir
University of North Dakota
Assistant Professor, Physics & Astrophysics

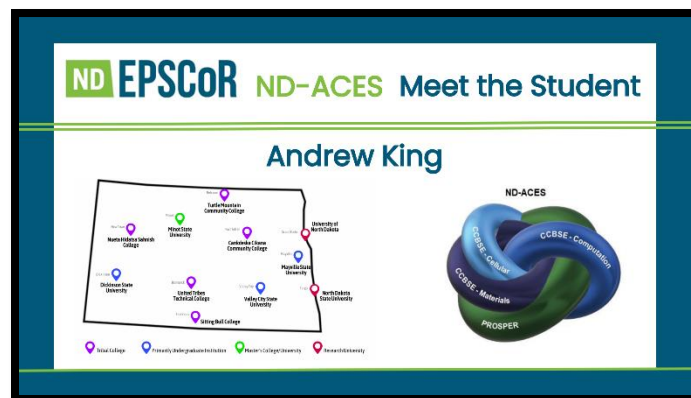
Find out more about the students behind the ND-ACES research by watching our Meet the Student video series. Meet ND-ACES student researcher, **Jacob Shreffler** (NDSU). Shreffler is a graduate student in the Pharmaceutical Sciences Department at North Dakota State University under the advisement of **Sanku Mallik** (NDSU). Mallik is the NDSU Lead of the Materials Design at Biointerfaces Pillar for the ND-ACES cooperative agreement.



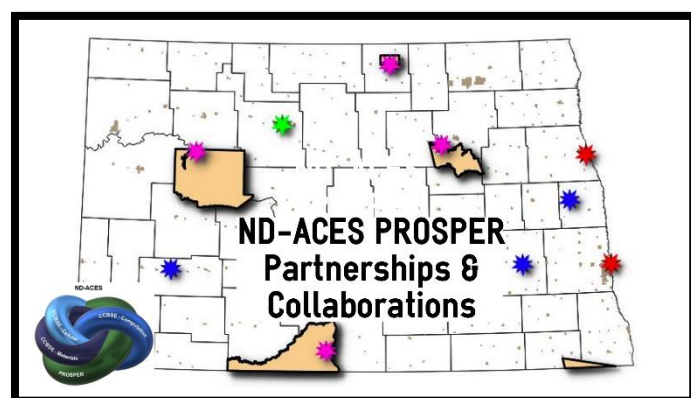
Meet ND-ACES student researcher, **Kyle Lauf** (VCSU). Lauf is an undergraduate student working with her advisor, **Hilde van Gijssel** (VCSU), on research within the Cellular Systems at Materials Interface Pillar.



Learn more about ND-ACES student researcher, **Andrew King** (VCSU). King is an undergraduate student who, like Lauf, is working with **Hilde van Gijssel** (VCSU) on research happening within the Cellular Systems at Materials Interface Pillar.



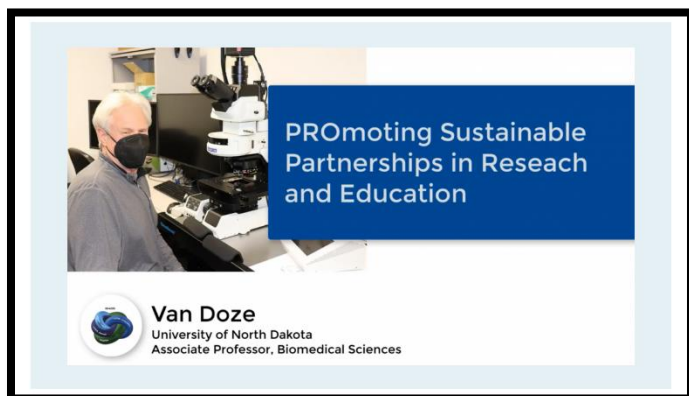
In the video (linked below), learn about Partnerships and Collaborations, an element within PROSPER, the broadening participation arm of ND-ACES. Partnerships and Collaborations is led by **Kelly A. Rusch** (NDSU) and co-led by **John Mihelich** (UND) and **Jean Ostrom-Blonigen** (ND EPSCoR). This initiative builds research infrastructure and strengthens ND's research competitiveness through industry partnerships and other collaborations.



In our next video, linked on the following page, meet the ND-ACES PROSPER Communication and Dissemination Lead, **Zoltan P. Majdik** (NDSU). Majdik is an Associate Professor in the Communication Department at North Dakota State University. This ND-ACES-wide initiative keeps all stakeholders informed about the progress of the project; supports the harmonious interactions of all ND-ACES groups; assists research and programmatic participants in disseminating their work to legislative, scientific, and citizen stakeholders; and develops materials for audiences across the state.



In the below video, meet the ND-ACES PROSPER Broadening Participation Lead, **Van Doze** (UND). Watch as he explains how this initiative supports American Indian students along the biosciences pathway. Doze is an Associate Professor of Biomedical Sciences at the University of North Dakota.



You can find out more about the faculty and students behind the ND-ACES research in our previous News & Notes editions. Videos from our prior visit to Dickinson State University in News & Notes' [November issue](#). Videos from our prior visits to North Dakota State University and the University of North Dakota can be found in News & Notes' [December issue](#). Videos from our visits to Mayville State University and Minot State University can be found in News & Notes' [January issue](#).

You can find more information about how the ND EPSCoR State Office seeks to help improve STEM education and to build a pathway for students in North Dakota who are interested in pursuing careers in STEM disciplines on our [STEM Education page](#). [Subscribe to our channel on YouTube](#) as we continue to feature ND-ACES student and faculty researchers at our participating institutions across North Dakota.

NATURE Sunday Academy sessions 2021-2022

The 2021-2022 Sunday Academy sessions begin next month. For information about NATURE program, please [contact ND EPSCoR](#). This year's Sunday Academy topics will include:

- "Life Cycle Assessment and Renewable Energy from an Indigenous Perspective" led by **Bethany Klemetsrud** (UND)
- "Bioinformatics: Through the Lens of COVID-19" led by **Lu Lui** (NDSU)
- "Smart PIGs in Pipes" led by **Ying Huang** (NDSU)
- "Counting Equilibrium and Le Chatelier's Principle" led by **Alex Parent** (NDSU)
- "Enter or Not Enter a Building After Fire: Post-disaster Structural Safety Assessment for Immediate Rescue Through UAV Acquired Images" led by **Mijia Yang** (NDSU)

View the 2021-2022 NATURE Sunday Academy Schedule by activity [here](#).

New lesson plans available

By **Shireen Alemadi**, ND EPSCoR STEM Manager and dREU Coordinator (right)



Visit the ND EPSCoR STEM Education Portal and check out the new Middle School (MS) and High School (HS) Lesson Plans that are free to download and use. The portal is an online resource created by the ND EPSCoR State Office to house middle and high school STEM lesson plans. Over the past few months, the ND EPSCoR State Office worked with **Brittany Hagen**, Associate Professor of Education, and **Jeni Peterson**, Director of Center for Teaching and Learning and Director of the Education and Innovation Center (both Mayville State University) to take the ND EPSCoR Nurturing American Tribal Undergraduate Research and Education (NATURE) Sunday Academy modules created by NDSU and UND faculty and develop them into full STEM lesson plans for middle and high school STEM teachers.

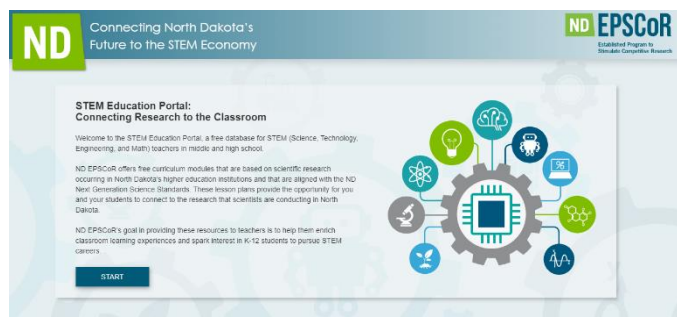
The ND EPSCoR State Office also worked with **Allan Linde**, MS/HS Special Education Transition Teacher, and **Barry Mann**, Principal, both at Wakpala School in South

Dakota, **Shayla Means**, a speech pathologist at the Little Eagle School, and **Sandy Gipp**, a first grade teacher at Wapala School, to create Lakota Cultural Supplements for each of the lesson plans; and with **Frances Allard**, a Cultural Advisor for the Turtle Mountain Band of Chippewa Indians, to create Ojibwa Cultural Supplements.

The lesson plans are linked to research conducted by the faculty at UND and NDSU, who created the original NATURE Sunday Academy informal STEM activity module. The lesson plans help students think, analyze, and seek solutions. “The structure of the lesson plan template is user friendly and will help middle and high school STEM teachers engage their learners in hands-on activities. All the supplies you need are listed and most are easily accessible and inexpensive. In addition, every lesson is aligned to Next Gen Science Standards to help students develop critical thinking and problem solving skills,” noted Hagen.

In the portal, you can filter your search by subject or standards. Each lesson comes with a PowerPoint slide deck, a detailed plan, and associated worksheets and assessments. New STEM lesson plans and cultural supplements will be posted to the Education Portal as they become available. If you have any questions, [contact Shireen Alemadi](#).

“The STEM Ed Portal will be helpful for both new and veteran teachers. They will be able to find lessons directly associated with their content areas and standards,” added Peterson. Visit the ND EPSCoR STEM Education Portal by clicking on the below linked image.



The STEM at Home video series continues

The ND EPSCoR State Office is bringing fun STEM projects to families at home via our YouTube channel. Finding engaging STEM projects for elementary students that families can facilitate is not always easy. Simple and exciting STEM projects for young students help to teach important critical thinking skills and

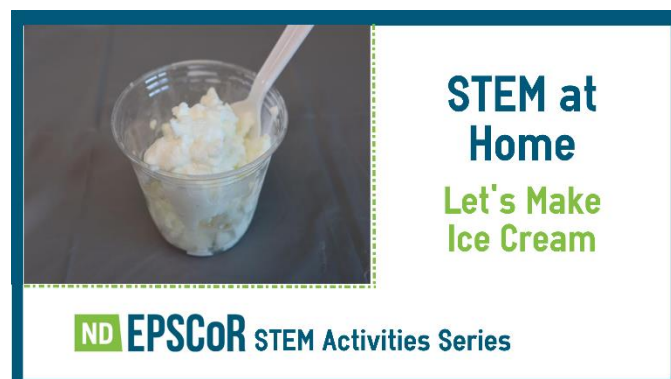
potentially spark a lifetime interest in STEM. Our full collection of STEM project videos and shopping lists is available [here](#). Watch the three newest videos in our STEM at Home series, linked below.



Get the full shopping list for the new Tie Dye Science activity [here](#).



Get the full shopping list for the new Soda and Milk Chemistry activity [here](#).



Get the full shopping list for the new Let's Make Ice Cream activity [here](#).

Click on the images on the next page to watch the STEM at Home engineering mini-series featuring **Austin Allard**, Pre-Engineering Instructor and ND EPSCoR NATURE Coordinator at Turtle Mountain Community College. Allard is also a researcher in the ND-ACES CCBSE Materials Design Pillar. [Subscribe to our YouTube](#)

[channel](#) and visit our [STEM activities page](#) for shopping lists. You can also visit our [STEM Education Portal](#) and [NATURE Sunday Academy](#) pages for more activities and lesson plans that strengthen the STEM pathway for students across ND.



CIRCLES Alliance survey and interview opportunities

In October 2020, the ND EPSCoR State Office joined five other EPSCoR states (Idaho, Montana, New Mexico, South Dakota, and Wyoming) in a National Science Foundation funded collaborative research project that forms an Alliance to connect with tribal community members within those states to gain a better understanding of each community's definition and perspective of STEM (science, technology, engineering, and mathematics). Initially, Alliance members planned to visit each tribal community, but with the COVID pandemic continuing, the Alliance has decided to continue to make virtual connections.

Using a common set of questions across the six-state CIRCLES (Cultivating Indigenous Research Communities for Leadership in Education and STEM) Alliance, participants input is being gathered through virtual interviews over Zoom or through an online survey with tribal community stakeholders to gain their perspective on how indigenous based STEM education is currently being incorporated or might be incorporated in the future, to support student STEM learning. To participate in an interview or survey, you must be 18 years or older.

The ND EPSCoR State Office has created a [link to a 90-second video](#) that describes these efforts. The anonymous online survey is [available at this link](#). Additionally, ND EPSCoR is conducting individual virtual interviews. If you would prefer to participate in an individual interview, please contact ND EPSCoR at ndepscor@ndus.edu, or call 701-231-8264.

ND EPSCoR www.ndepscor.ndus.edu 701-231-8400

This effort aims to foster better connections with tribal communities and support STEM educational programming. Working toward that goal, the ND EPSCoR State Office humbly requests your assistance in completing this survey or contacting us to set up a virtual interview. The CIRCLES Alliance believes this is a particularly poignant time to reflect on observations regarding indigenous based STEM education the COVID-19 pandemic has brought some new challenges into focus. [Learn more about the North Dakota CIRCLES effort here.](#)

Events and trainings



2022 State Conference

April 6, 2022

Save the date to join us on
 Wednesday April 6, 2022 at the
 Alerus Center in Grand Forks.

Responsible Conduct of Research (RCR)

RCR training with STEM Manager **Shireen Alemadi** is available upon request to augment initial campus or Collaborative Institutional Training Initiative (CITI) RCR trainings. Please [contact Shireen Alemadi](#) to schedule.

Creating Connections Workshop by the Alan Alda Center for Communicating Science


Stony Brook University | Alan Alda Center for Communicating Science

presented by the **ND EPSCoR** State Office

Creating Connections Workshop

September 28, 2021
 2:00 pm - 4:00 pm
 Central time

The Essentials Workshop

October 26, 2021
 1:00 pm - 4:00 pm
 Central time


Register here: <https://bit.ly/registeralana> or use the QR code!

The ND EPSCoR State Office is once again sponsoring a *Creating Connections* workshop by the [Alan Alda Center for Communicating Science](#) at 2:00 pm CT on September 28, 2021. You must register for the online workshop. [Click here to register.](#)

Creating Connections is a two-hour live, online workshop. The Alda Method is a unique approach to science communication training that combines improvisational theatre-based techniques with message design strategies, including analogies and narrative. This immersive method emphasizes two-way communication to build trust and invite others to share in the wonder and joy of science. The process incorporates research and best practices from science communication, journalism, ethics, and other relevant fields.

If you have already attended *Creating Connections* and are interested in the next workshop in the series, *The Essentials*, [email Shireen Alemadi](#) to register or learn more. *The Essentials* workshop will be offered at 1:00 pm CT on October 26, 2021.

ND EPSCoR ND-ACES makes awards to early career faculty

Three awards were made to support early career faculty researchers as part of the NSF EPSCoR RII Track-1 New Discoveries in the Advanced interface of Computation, Engineering, and Science (ND-ACES) cooperative agreement. Funds can be used for additional graduate students and domestic travel to assist in fast tracking research and outreach efforts within the ND-ACES Center for Cellular Biointerfaces in Science and Engineering (CCBSE) and/or PROMoting Sustainable Partnerships in Education and Research (PROSPER). Awards were made to the following ND-ACES early career faculty researchers:

- **Jiha Kim**, Cellular Systems (NDSU) to expand her current research collaborations to include 1) **Mohi Quadir** (Materials Design, NDSU), who will prepare soft scaffolds and test their feasibility for the cancer cells working with Kim and her team using commercially available cell lines to test the optimized condition for the PDOs and 2) **Sanku Mallik** (Materials Design, NDSU), who leads an activity to design and prepared polymer nanoparticles to deliver anticancer drugs on cancer cells on hard and soft material scaffolds working with Kim's team to test it on PDOs to address tumor heterogeneity and potential toward personalized medicine. Once generated, the PDOs from this project will be shared with **Hilde van Gijssel** (Cellular Systems, VCSU) and **Colin Combs** (Cellular Systems, UND) to further optimize long-term (greater than 1

month) viable patient-derived organoid (PDO) lines.

- **Trung Bao Le**, Computational Approaches (NDSU) to expand his current research collaborations to include 1) **Amada Haage** (Cellular Systems, UND) to bring graduate students to her lab to work on cellular dynamics imaging to obtain validation data for the code and 2) extend his collaboration with **Kerry Hartman** (Cellular Systems, NHSC) to bring HPC training to undergraduate students at Nuetta Hidatsa Sahnish College (NHSC).
- **Wenjie Xia** Computational Approaches (NDSU) to expand his current research collaborations to include **Jerome Delhommelle** (Computational Approaches, UND) on the implementation of different machine learning algorithms into the multiscale modeling of polymer-clay nanocomposites.

Activities of note

NDSU faculty and libraries staff received a ND EPSCoR State Office STEM grant to purchase portable 3D laser scanners

In February 2021, a group of NDSU faculty and libraries staff received financial support from the ND EPSCoR State Office STEM grants program to purchase two portable 3D laser scanners. These are now available for checkout at the NDSU Digital Fabrication Lab to all faculty, staff, and students. The Digital Fabrication Lab staff manage the equipment and provide hands-on training sessions. Proprietary software is available in the Data Visualization Lab to work with data collected from these scanners.



North Dakota State Library staff members teach students about the scanners. Students taking "Remote Sensing of the Environment" learned how to use the 3D laser scanners.

The 3D laser scanner lending service is a new service and resource this fall within the Data Visualization Lab. To learn more about this service, please visit the [NDSU Libraries Data Visualization Lab website](#).

Public comment request for the Future of NSF EPSCoR

The Committee on the Future of NSF EPSCoR invites the public to provide input on NSF EPSCoR's investment strategies and opportunities as part of NSF's visioning process for increased success. This important request for public comment is available to anyone interested in providing input on NSF EPSCoR. Consideration will be given to all comments received by October 11, 2021. Stakeholders can submit comments anonymously. Stakeholders who include their contact information may receive an email to follow up on their input and/or an invitation to participate in a future opportunity through the Future of NSF EPSCoR visioning activity.

The Committee operates as a subcommittee to NSF's Committee on Equal Opportunities in Science and Engineering (CEOSE). The Committee will identify new opportunities for increased success and impact and submit a report of findings to NSF CEOSE for review. Additional opportunities for the public to contribute to the visioning process include listening sessions and a virtual workshop. [Provide your input on the Future of NSF EPSCoR](#).

Announcing position opening

Tribal Partnerships Manager

The purpose of this position is to maximize the broader impact and effectiveness of all ND EPSCoR State Office programs through the performance of the following duties:

1. Lead, develop, maintain, and enhance strong alliances between the ND EPSCoR State Office and tribal communities within ND, including the Tribal Colleges and Universities (TCUs).
2. Lead, develop, implement, manage, and support ND EPSCoR State Office programs and initiatives for underrepresented and underserved students in ND; especially American Indians, which have the potential to positively impact the STEM pathway for underrepresented and underserved students in ND.

3. Lead evaluation, assessment, and dissemination efforts related to all programming related to this position.

See additional details about the Tribal Partnerships Manager position [here](#). Apply online [here](#). Open until filled. [Contact ND EPSCoR](#) with any questions about this opportunity.

Funding opportunities

Funding Opportunities come from three sources:

1. The National Science Foundation (NSF)-funded New Discoveries at the Advanced interface of Computation, Engineering, and Science (ND-ACES) RII Track-1 cooperative agreement, which consists of two broad components: 1) Center for Cellular Biointerfaces in Science and Engineering (CCBSE), which consists of three research pillars: materials design, cellular systems, and computational approaches and 2) PROMoting Sustainable Partnerships in Education and Research (PROSPER), which consists of four connected project elements: education and workforce development, broadening participation, partnerships and collaborations, and communication and dissemination.
2. ND EPSCoR State Office
3. [EPSCoR and EPSCoR-like federal funding agencies](#), which include: Department of Energy (DOE), National Aeronautics and Space Administration (NASA), National Institutes of Health (NIH), NSF, U.S. Department of Agriculture (USDA), and Department of Defense (DoD),

Track-1 ND-ACES: Doctoral STEM Teaching Assistantship NDSU/UND ONLY

Under ND-ACES, the Doctoral STEM Teaching Assistantship program is designed to: 1) increase NDSU/UND doctoral students' understanding of and experience in undergraduate STEM teaching and 2) provide course release time to the Tribal College/University (TCU), Primarily Undergraduate Institution (PUI), and Master's College/University (MCU) faculty/instructors/CCBSE researchers so that they are able to spend additional time conducting their research. The Doctoral STEM Teaching Assistantship Program is a semester-long teaching placement (during Spring 2022 or Fall 2022) that will take place at a CCBSE-participating TCU, PUI, or MCU. Under the direction of the faculty/instructor/CCBSE researcher on those campuses, doctoral students will teach one course determined collaboratively between the doctoral

student, the TCU/PUI/MCU faculty/instructor, and the institution. For more information, see the [Request for Applications](#). Please be aware of the following application deadlines:

- Spring 2022 Award Dates: January 1 – May 15, 2022 / Application Due: September 30, 2021
- Fall 2022 Award Dates: August 1 – December 15, 2022 / Application Due: February 28, 2022

Track-1 ND-ACES: Early Career Faculty Support

Funds are available as part of the NSF EPSCoR RII Track-1 New Discoveries in the Advanced interface of Computation, Engineering, and Science (ND-ACES) cooperative agreement to support participating early career faculty (ECF) from any of the 10 ND-ACES institutions. Funds can be used for additional graduate students and domestic travel to assist in fast tracking research and outreach efforts within the ND-ACES Center for Cellular Biointerfaces in Science and Engineering (CCBSE) and/or PROMoting Sustainable Partnerships in Education and Research (PROSPER).

- Applications for ND-ACES-related graduate students and travel will be accepted from ND-ACES assistant professor participants at North Dakota State University (NDSU) and the University of North Dakota (UND).
- Applications for ND-ACES-related travel will be accepted from ND-ACES faculty/instructor participants at Cankdeska Cikana Community College (CCCC), Dickinson State University (DSC), Mayville State University (MaSU), Minot State University (MiSU), Nueta Hidatsa Sahnish College (NHSC), Sitting Bull College (SBC), Turtle Mountain Community College (TMCC), and Valley City State University (VCSU) who participate in the ND-ACES ECF mentoring program.

Track-1 ND-ACES: Undergraduate Research Assistantship (URA) Program

Under ND-ACES, this program gives up to three current junior and senior undergraduate students pursuing a B.S. STEM degree at a four-year institution (or a two-year institution granting B.S. STEM degrees) an opportunity to perform research within the National Science Foundation (NSF)-funded New Discoveries in the Advanced Interface of Computation, Engineering, and Science (ND-ACES) Center for Cellular Biointerfaces in Science and Engineering (CCBSE). For more information, see the [Request for Applications](#). Application Deadline: Noon, September 16, 2021

Track-1 ND-ACES: Distributed Research Experience for Undergraduates (dREU)

This ND-ACES program gives undergraduate students – from the nine participating CCBSE campuses the opportunity to work in the CCBSE alongside NSF Track-1 faculty researchers on their cutting-edge research projects. For more information, see the [Request for Applications](#).

Please be aware of the following application deadlines:

- Academic Year 2021 Application Deadline: Noon, September 16, 2021
- Full Year 2021 – 2022 Application Deadline: Noon, September 16, 2021
- Spring and Spring/Summer 2022 Application Deadline: Noon, December 1, 2021

Track-1 ND-ACES: Rural Student Teaching Experience (RSTE) Program

The ND EPSCoR National Science Foundation (NSF)-funded RII Track-1 cooperative agreement New Discoveries in the Advanced Interface of Computation, Engineering, and Science (ND-ACES) Rural Student Teaching Experience (RSTE) program provides unique learning experiences for up to two teacher candidates. The goal of the RSTE program is to provide an exceptional learning experience for teacher candidates in a rural school and community while they complete the requirements of their undergraduate programs. Please see the [Request for Applications](#) for details. Application Deadline: Noon, September 17, 2021

ND EPSCoR State Office: STEM Research, Education, and Outreach

The ND EPSCoR State Office's mission is to support efforts of participating institutions of higher education across the state that result in increased STEM faculty capacity and competitiveness, a stronger STEM pathway that produces our next generation workforce, educators, and researchers, and, an informed citizenry that values the STEM ecosystem and economy.

Thus, the ND EPSCoR State Office is now accepting proposals to fund STEM activities at EPSCoR participating institutions: research universities (RUs, NDSU and UND), master's college/university (MCU, Minot State University), primarily undergraduate institutions (PUIs, Dickinson, Mayville, and Valley City State Universities), and the tribal colleges/universities (TCUs, Cankdeska Cikana Community College, Nueta Hidatsa Sahnish College, Sitting Bull College, Turtle Mountain Community College, and United Tribes Technical College). Please see the [Request for Proposals](#)

for details. Proposal Deadline: All Proposals Due to the ND EPSCoR State Office: Noon, September 21, 2021

NSF: Dear Colleague Letter: Towards an Equitable National Cyberinfrastructure

The National Science Foundation (NSF), through its Campus Cyberinfrastructure (CC*) program (NSF 21-528), invests in coordinated campus-level networking and cyberinfrastructure improvements, innovation, integration, and engineering for science and engineering applications and distributed research projects. The purpose of this Dear Colleague Letter (DCL) is to encourage proposal submissions to CC* for projects that will help overcome disparities in cyber-connectivity associated with geographic location, and thereby enable the populations based in these locales to become more nationally competitive in science, technology, engineering, and mathematics (STEM) research and education. This effort represents a partnership between NSF's Office of Advanced Cyberinfrastructure (OAC) and the Established Program to Stimulate Competitive Research (EPSCoR) within the Office of Integrative Activities (OIA). For more information, please see the full [Dear Colleague Letter](#).

This DCL does not constitute a new competition nor a new program. Rather, interested proposers should prepare and submit proposals in accordance with the instructions in the Campus Cyberinfrastructure (CC*) program solicitation (NSF 21-528) and the NSF Proposal and Award Policies and Procedures Guide (PAPPG).

On August 27, 2021, NSF conducted a webinar session describing this opportunity. A copy of that PowerPoint slides used during that session is available [here](#). As an additional resource, NSF is directing jurisdictions to [The Quilt](#), a national coalition of non-profit U.S. regional research and education networks.

Proposals responding to this DCL should be submitted to the October 11, 2021, deadline for CC* to be considered for funding.

DoD: DEPSCoR Regional DoD Day

The Department of Defense (DoD) has asked the University of South Dakota to host a regional DEPSCoR DoD Day, where DoD program managers will provide information about the DEPSCoR program and general information about working with the DoD. The regional DEPSCoR Day will be held on October 20, 2021 in Vermillion, SD. For more information, please see: [DEPSCoR Regional DoD Day](#)

NSF: EPSCoR Workshop Opportunities

EPSCoR is designed to fulfill NSF's mandate to promote scientific progress nationwide, and NSF EPSCoR continually welcomes proposals for workshops in Solicitation NSF 19-588. These workshops focus on multi-jurisdictional efforts of regional to national importance related to EPSCoR's goals and NSF's mission. For more information, please see the RFP: [EPSCoR Workshop Opportunities](#)

Acronyms

Participating Institutions:

- Master's College/University (MCU)
 - Minot State – Minot State University
- Primarily Undergraduate Institutions (PUIs)
 - DSU – Dickinson State University
 - Mayville State – Mayville State University
 - VCSU – Valley City State University
- Research Universities (RUs)
 - NDSU – North Dakota State University
 - UND – University of North Dakota
- Tribal Colleges/Universities (TCUs)
 - CCCC – Cankdeska Cikana Community College
 - NHSC – Nueta Hidatsa Sahnish College
 - SBC – Sitting Bull College
 - TMCC – Turtle Mountain Community College
 - UTTC – United Tribes Technical College

Funding:

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- NSF Collaborative Research
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- ND EPSCoR State Office
 - STEM programing identified within the newsletter and state match funding for ND-ACES

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