



Established Program to
Stimulate Competitive Research

(FOR IMMEDIATE RELEASE)

ND EPSCoR ND-ACES TO HOLD SCIENCE CAFÉ ON MASKS AND COVID-19

10/21/2021

(FARGO, ND) – ND EPSCoR (North Dakota Established Program to Stimulate Competitive Research) ND-ACES (New Discoveries in the Advanced Interface of Computation, Engineering and Science) will host a “Masks vs. COVID-19” virtual public Science Café on October 26. This event will feature the science behind mask-wearing and the materials used in their design.

Masks have been at the center of much debate and controversy over the last one and a half years. How do they prevent the spread of tiny viral organisms? Does the material they're made of make a difference? What are their properties and functions? Are terms like “nanofilters” just buzzwords, or is there more to them?

In this free, public event, researchers from the ND-ACES Materials Design Pillar use their expertise in materials design, chemistry and nanoparticles to offer a deep-dive into these questions.

This Science Café will be moderated by Zoltan P. Majdik, Associate Professor of Communication at North Dakota State University. The panel will feature the University of North Dakota (UND) Chemistry team of Drs. Zhao and Du and their students.

Dr. Guodong Du will give an Introduction on materials used for the most commonly available masks, and Dr. Julia Xiaojun Zhao will talk about the use of nanomaterials used in masks. Then, four UND Chemistry PhD students --- Yingfen Wu, Sarah Reagen, Wen Sun and Sandy Sun --- will talk about four types of masks: N95/KN95 masks, surgical masks, cloth masks, and nanomaterials being incorporated in masks.

This event is free and open to the public via Zoom webinar on Tuesday, October 26 at 12:00 pm (noon) CDT. For more information on the event, visit:

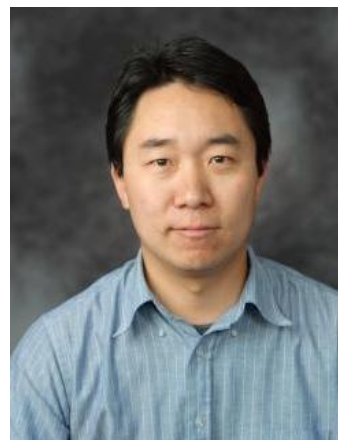
<https://symposium.foragerone.com/sciencecafe>. To join the Zoom webinar, visit the Live Sessions page: <https://symposium.foragerone.com/sciencecafe/live-sessions>.

About the Panelists

Dr. Julia Xiaojun Zhao is a Professor of Chemistry. She joined the UND faculty in 2004 and was promoted to full professor in 2015. Her research area is the development of various new nanomaterials for biomedical applications. She has published over 100 peer reviewed papers,



*Julia Xiaojun Zhao, Professor -
Department of Chemistry at
UND.*



*Guodong Du, Associate
Professor - Department of
Chemistry at UND.*

nine book chapters and holds seven issued patents in nanomaterial field. She has also co-edited a book and presented over one hundred presentations in international and national conferences. She has received a number of research grants from NSF, DOD, DOE , EPA and the State of North Dakota. Currently she is an ND-ACES Material Pillar Co-Lead.

Dr. Guodong Du is an Associate Professor of Chemistry and has been at UND since 2008. His research is on catalysis and sustainable polymers with a recent focus on the application of polymeric materials in biomedical fields. Currently he is a researcher within the ND-ACES Materials Design Pillar.

Sandy Sun is a PhD student in chemistry department at UND. He joined Dr. Zhao's group in 2019. His research mainly focuses on the design, synthesis and characterization of novel fluorescent nanoparticles (quantum dots, polymer dots) and their biological applications.

Wen Sun is a PhD student in chemistry at UND. She joined Dr. Zhao's group in 2018. Her research is on the development of nanomaterials for electrochemical catalysis and energy storage applications.

Sarah Reagen is a PhD student in the Department of Chemistry at UND. She joined Dr. Zhao's group in 2019. Her research is on the development and synthesis of nanoparticles for biological and environmental applications.

Yingfen Wu is a PhD student in the Department of Chemistry at UND. She joined in Dr. Julia Xiaojun Zhao's group in 2019. Her research is on the development and synthesis of nanozymes for bioapplications.

About ND-ACES

ND-ACES: New Discoveries in the Advanced Interface of Computation, Engineering, and Science (ND-ACES), ND EPSCoR's most recent NSF RII, is a five-year cooperative agreement that carries an 80/20% federal/state match. For more information, [visit the ND-ACES website](#).

About ND EPSCoR

North Dakota first became EPSCoR-eligible in 1985 and is one of 28 EPSCoR jurisdictions. EPSCoR is a federal program designed to broaden the science and engineering ecosystem across all jurisdictions in the US, primarily through the NSF research infrastructure improvement (RII) awards.

The ND EPSCoR State Office is funded by the North Dakota University System to strengthen the state's STEM infrastructure and enhance its participation in the nation's competitive research and development enterprise. ND EPSCoR benefits ND by helping students, supporting quality faculty, growing research infrastructure capacity, and assisting with innovative research that positively impacts the state's economy and its citizens. For more information, visit <https://www.ndepscor.ndus.edu/>.

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