

University of Nebraska-Lincoln
Vice Chancellor for Research & Economic Development
Office of Research & Economic Development
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- ANTI-RACISM AND RACIAL EQUITY
- CLIMATE RESILIENCE
- EARLY CHILDHOOD EDUCATION AND DEVELOPMENT
- HEALTH EQUITY
- SCIENCE AND TECHNOLOGY LITERACY FOR SOCIETY
- SUSTAINABLE FOOD AND WATER SECURITY
- QUANTUM SCIENCE AND ENGINEERING

GRAND CHALLENGES

YEAR ONE UPDATE



YEAR ONE PROGRESS

All UNL colleges are participating in at least one funded project

\$10M

Investments made in 2022

45

Total proposals submitted

18

Volunteer reviewers for planning grants

13

Funded projects in 2022:
3 Catalyst Awards
10 Planning Grants

178+

Faculty and staff involved in projects funded during year one

600+

Faculty, staff and students attended Grand Challenges events during the 2021-22 academic year

2022 CATALYST AWARDS

Catalyst awards address four themes: anti-racism and racial equity, health equity, quantum science and engineering, and science and technology literacy for society. Awards are for specific goal-based projects with measurable outcomes. A rigorous external review process was used to review proposals. Principal investigators and projects are:

- **Katie Edwards**, educational psychology, "Establishment and Evaluation of an Indigenous-led Center to Prevent Sexual Violence Among Indigenous Youth Across the U.S.," \$3,210,177.
- **Tomas Helikar**, biochemistry, "Digital Twin Innovation Lab," \$5,039,652.
- **Kees Uiterwaal**, physics and astronomy, "Quantum Business, Arts and Science for Society (Q-BASS)," \$629,692.

\$2,959,840

Average amount of a catalyst award

2022 PLANNING GRANTS

Planning grants support teams that are developing project ideas around one or more themes. Principal investigators and projects are:

- **Tala Awada**, School of Natural Resources, A Nebraska Circular Agriculture Hub for the 21st Century."
- **Yufeng Ge**, biological systems engineering, "SPACE2: Space, Policy, Agriculture, Climate and Extreme Environment."
- **Mark Griep**, chemistry, "Midwest Science Engagement Consortium."
- **David Harwood**, earth and atmospheric sciences, "Ice Coring and Education Silo."
- **Jennifer Lather**, architectural engineering, "Serving At-risk Communities in Disasters: Studying Planning and Response Measures under the Lens of Equity."
- **Liz Lorang**, University Libraries, and **Leen Kiat-Soh**, School of Computing, "Machine Learning, Artificial Intelligence, and Cultural Heritage for Science and Technology Literacy and to Advance Anti-racist Information Systems."

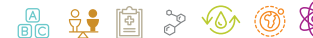
- **Anne Schutte** and **Nicholas Hubbard**, psychology, "Advancing Cutting-Edge Research and Practices to Increase Access and Use of Green Space and Outdoor Play in Early Childhood Settings."
- **Elizabeth VanWormer**, School of Natural Resources, "Nebraska One Health: Building a Flexible Network Approach to Complex Systems Challenges that Matter for Human, Animal and Planetary Health."
- **Ana María Vélez Arango**, entomology, "RISE with Insects (Resilience Ignited through Science and Ethics)."
- **Sarah Zuckerman**, educational administration; **Trey Andrews**, psychology and ethnic studies; **Virginia Chaidez** and **Megan Kelley**, nutrition and health sciences., "Nebraska Community Action Research for Equity and Sustainability (NE CARES) Hub."

\$138,948

Average amount of a planning grant



LEARN MORE
research.unl.edu/grandchallenges



GRAND CHALLENGES

