



GALLOGLY COLLEGE OF ENGINEERING
WATER CENTER
The UNIVERSITY of OKLAHOMA

UNIVERSITY OF OKLAHOMA INTERNATIONAL WATER COLLOQUIUM AND WATER PRIZE CEREMONY

**8:30 am – 9:00 pm
Monday, September 15, 2025**

**Sam Noble Museum of Natural History
2401 Chautauqua Ave
Norman, OK 73072**

GLOBAL SUSTAINABILITY OF GROUNDWATER RESOURCES

COLLOQUIUM AGENDA

| | | |
|------------|--|----------------------|
| 8:30 a.m. | Check-in and Breakfast | Atrium & Redbud Café |
| 9:00 a.m. | Opening Remarks Welcome from OU – President Joseph Harroz, Jr. Welcome from WaTER Center – Randall Kolar, Ph.D. | Kerr Auditorium |
| 9:15 a.m. | <i>Groundwater Beneath and Within Ice</i> Shemin Ge, Ph.D. University of Colorado Boulder | Kerr Auditorium |
| 10:30 a.m. | <i>Groundwater Research at EPA</i> Saba Tahmassebi, Ph.D. U.S. Environmental Protection Agency | Kerr Auditorium |
| 11:45 a.m. | Lunch | Great Hall |
| 12:30 p.m. | Keynote Speech <i>Groundwater and Water Poverty</i> John Cherry, Ph.D. Stockholm Water Prize Laureate 2020 | Great Hall |
| 1:45 p.m. | <i>University–Community Research Response to COVID–19 amplified food, energy, and water insecurities on the Navajo Nation</i> Karletta Chief, Ph.D. University of Arizona | Kerr Auditorium |
| 3:00 p.m. | <i>Groundwater at the Overlap of Science and Society</i> Himanshu Kulkarni, Ph.D. OU International Water Prize Winner 2025 | Kerr Auditorium |
| 4:15 p.m. | Student Research Presentations | Kerr Auditorium |
| 5:15 p.m. | Evening Reception and Museum Viewing | Galleries and Plaza |

UNIVERSITY OF OKLAHOMA

INTERNATIONAL WATER PRIZE CEREMONY 2025

- 6:20 p.m. **Opening Remarks** Great Hall
John Klier, Ph.D.
Dean, Gallogly College of Engineering
- 6:30 p.m. **Sainrithya Dance Academy**
- 6:45 p.m. **Dinner**
- 7:20 p.m. **Water Prize History and Introduction of Prize Presenter**
Randall Kolar, Ph.D.
Director, School of Civil Engineering and Environmental Science
- 7:30 p.m. **Introduction of the 8th OU International Water Prize Winner**
John Cherry, Ph.D.
2020 Stockholm Water Prize Laureate
- 7:40 p.m. **OU International Water Prize Acceptance Remarks (virtual)**
Himanshu Kulkarni, Ph.D.
Founder, Advanced Center for Water Resources Development and Management
- 7:50 p.m. **Panel Discussion**
Global Sustainability of Groundwater Resources

| | | |
|------------------|-----------------------|------------------------|
| <i>Panelists</i> | John Cherry, Ph.D. | Shemin Ge, Ph.D. |
| | Karletta Chief, Ph.D. | Saba Tahmassebi, Ph.D. |
| <i>Moderator</i> | Laura Brunson, Ph.D. | |
- 8:45 p.m. **Audience Questions**
- 8:55 p.m. **Closing Remarks**
Robert Nairn, Ph.D.
Professor, Environmental Science
- 9:00 p.m. **Group Photo**

OU INTERNATIONAL WATER PRIZE WINNER



Himanshu Kulkarni

Dr. Himanshu Kulkarni is the Founder Trustee, Former Executive Director and Scientist Emeritus with the Advanced Center for Water Resources Development and Management (ACWDAM). He is also associated with three leading academic institutions in India. He has dedicated his professional career to aquifers and community action across India's groundwater typology for forty-two years. He has held advisory positions on various committees of the Government, apart from anchoring many action-research collaborations on groundwater, including international programmes. Dr. Kulkarni has published his work,

while also working with communities at the grassroots, demystifying groundwater science and catalysing aquifer-based participatory groundwater management and governance. He has supervised, guided and mentored students from many institutions and disciplines on the singular subject of groundwater for many years in various positions. Dr. Kulkarni continues to work on bringing a strong 'aquifer' based pedagogy into various dimensions of water management and governance in India, especially through the concept of participatory aquifer management in the context of rural and urban India. He has also anchored a scientific pedagogy in the revival of springs in many mountains in the regions, including the Himalayas, which is being currently undertaken through various collaborations.

KEYNOTE SPEAKERS



John Cherry

University of Waterloo

Dr. John Cherry is a Distinguished Emeritus Professor in the Department of Earth and Environmental Science at the University of Waterloo in Canada, and an Honorary Professor at the University of Hong Kong. His research pioneered the field of "contaminant hydrogeology". He received the Singapore (Lee Kuan Yew) Water Prize in 2016 and the Stockholm Water Prize in 2020. He holds geological engineering degrees from the University of Saskatchewan and the University of California Berkeley, and a PhD in hydrogeology from

the University of Illinois. He co-authored the textbook "Groundwater" with R.A. Freeze (1979) and is a Fellow of the Royal Society of Canada, a Foreign Member of the U.S. Academy of Engineering. He was Chair of the Canadian Expert Panel on the environmental impacts of shale gas development. He has received many awards and honors from Canada, USA, UK, and Switzerland. He is the founder and Leader of the Groundwater Project, a philanthropic educational NGO based in Canada for creating free online books and educational materials prepared by experts around the world and translated in many languages for groundwater education.



Karletta Chief

University of Arizona

Dr. Karletta Chief (Diné) is a University of Arizona Distinguished Outreach Faculty 2021 and Professor and Extension Specialist in Environmental Science at the University of Arizona and the Director of the Indigenous Resilience Center. Dr. Chief works to bring relevant water science to Native American communities in a culturally sensitive manner. As Director of the Indigenous Resilience Center, she aims to facilitate efforts of University of Arizona climate/environment researchers, faculty, staff, and students working with Native Nations to

build resilience to climate impacts and environmental challenges. Two of her primary tribal projects are The Pyramid Lake Paiute Tribe Climate Adaptation and Traditional Knowledge Project and Gold King Mine Spill Diné Exposure Project. Dr. Chief also leads the NSF Indigenous Food, Energy, and Water Security and Sovereignty Program and is training 38 graduate students. Indige-FEWSS's vision is to develop a diverse workforce with intercultural awareness and expertise in sustainable food, energy, and water systems (FEWS), specifically through off grid technologies to address the lack of safe water, energy, and food security in Indigenous communities. Dr. Chief received a B.S. and M.S. in Civil and Environmental Engineering from Stanford University in 1998 and 2000 and a Ph.D. in Hydrology and Water Resources from University of Arizona in 2007.

KEYNOTE SPEAKERS



Shemin Ge

University of Colorado Boulder

Dr. Ge is a distinguished professor in the Department of Geological Sciences at the University of Colorado Boulder. She was the department Chair from 2015–2019 and served for two years as a program director for the Hydrologic Sciences Program at the National Science Foundation. Dr. Ge studies groundwater in the Earth's crust. Her research expertise includes water resource dynamics under a changing climate and permafrost hydrology in cold regions. Dr. Ge also explores fluid induced earthquakes associated with geo-energy (geothermal and

oil/gas) development. In recognition of her pioneering research and leadership in the field, the Hydrogeology Division of the Geological Society of America awarded Dr. Ge the 2018 Meinzer Award and named her as the 2016 Birdsall-Dreiss Lecturer for excellence in research and ability to communicate effectively. Dr. Ge is a fellow of American Geophysical Union and Geological Society of America. She was a U.S. Fulbright Scholar awardee in 2019–2020. She is currently a member of the US National Academies' Water Science and Technology Board. Dr. Ge received her Ph.D. in hydrogeology from Johns Hopkins University in 1990. She holds an M.S. from the University of British Columbia and a B.E. from the Wuhan University of Technology.



Saba Tahmassebi

US Environmental Protection Agency

Dr. Saba Tahmassebi is the director of EPA's Robert S. Kerr Environmental Research Center (aka, Kerr Lab) in Ada, Oklahoma. Kerr Lab is EPA's only research facility focusing on groundwater research. Saba advocates for applied customer-focused research and building stronger relationships with communities, industry, research universities and Native American tribes. Previously, Saba was the Agency Chief Engineer for the Oklahoma Department of Environmental Quality where he was involved in several environmental programs. Saba

earned a bachelor's degree in chemical engineering from the University of California at San Diego, and master's and doctoral degrees in petroleum engineering from the University of Southern California and the University of Oklahoma, respectively. He is a registered Professional Engineer licensed in Oklahoma. Saba is also a university faculty member teaching environmental technology and chemistry courses.

MODERATOR



Laura Brunson

Water For People

Dr. Laura R. Brunson is an experienced water, sanitation and hygiene professional with over fifteen years in the sector supporting and leading programmatic and research activities. Brunson currently serves as Director of Strategic Accountability and Adaptation at Water For People. In this capacity, she provides strategic direction to a dynamic team dedicated to enhancing monitoring, evaluation, learning, and planning functions organization-wide, with a particular emphasis on leveraging insights for global planning and adaptation efforts.

Previously Brunson was the Deputy Director of the Millennium Water Alliance where she played a key role in program development and implementation using collective impact and systems strengthening approaches. Throughout her career, Brunson has managed fundraising efforts, developed and led highly successful teams, co-founded a non-profit sustainability organization, and fostered adaptive program management. Brunson holds a PhD from the University of Oklahoma where she was awarded fellowships from the National Science Foundation and the Environmental Protection Agency to focus on novel technologies for fluoride and arsenic removal from drinking water.

STUDENT PRESENTERS



***Weaving Culturally Important Vegetation Species
in Aquatic Ecosystem Restoration***

Hailey Blackwell
Ph.D. Candidate in Environmental Science
Advisor – Dr. Robert Nairn



AI Agent for Hydrologic Modeling

Songkun Yan
Ph.D. in Environmental Science
Advisor – Dr. Yang Hong



***Electrothermal Membrane Distillation Process for Energy-Efficient
Desalination of High-Salinity Water (Produced water)***

Milad Shokrollahi
Ph.D. in Chemical, Biological, and Materials Engineering
Advisor – Dr. Ngoc Bui



***Biomass-Based Cation Exchange Polymers for Brackish Water Treatment:
Comparative Performance and Future Directions***

Rishav Adhikari
M.S. in Environmental Engineering
Advisor – Dr. Elizabeth Butler

ORGANIZING COMMITTEE

James Chamberlain, Ph.D., P.E., BCEE

Former Co-Director for Education and Outreach

Yang Hong, Ph.D.

CEES Professor and Director of Hydrology and Water Security

Palista Kharel, MBA, MPPA

Executive Director

Robert Knox, Ph.D., P.E.

CEES Professor

Randall Kolar, Ph.D, P.E.

CEES Director and Professor

Robert Nairn, Ph.D., BCES

CEES Professor and CREW Director

David Sabatini, Ph.D., P.E., BCEE

CEES Professor Emeritus and Founder

Jason Vogel, Ph.D., P.E.

CEES Professor and OWS Director

Donna Wylie

WaTER Center Staff Assistant

Special thanks to Karen Kelly and OU Marketing and Communications team, University Catering, Abbey Road Catering, Sam Noble Museum, and staff and student volunteers.



GALLOGLY COLLEGE OF ENGINEERING
WATER CENTER
The UNIVERSITY of OKLAHOMA



Make A Donation
water.ou.edu

Contact Us
(405) 325-2916 | water.ou.edu | water@ou.edu

This publication, printed by OU Printing Services, is issued by the University of Oklahoma Gallogly College of Engineering.