

# **U.S. National Committee for Geological Sciences (USNC/IUGS)**

## **Committee**

### **Bradley D. Cramer**

#### **Chair**

Dr. Bradley Cramer is the Director of Undergraduate Studies and an Associate Professor with the Department of Earth & Environmental Sciences at the University of Iowa. His interests include Earth System Science, deep-time Earth history, stable and radiogenic isotope geochemistry, chemostratigraphy, biostratigraphy, stratigraphic nomenclature, history of geology, geochronology, and the Geologic Time Scale. In his words, "I try to understand the major biotic, chemical, and physical events that punctuate the history of our planet by throwing every tool and proxy at the problem as is possible." His current NSF CAREER grant focuses on developing Neogene-Scale resolution (i.e. 100 kyr) for global biogeochemical events that took place during the Wenlock Epoch of the Silurian Period (~430 Ma). This research involves the integration of biostratigraphy, stable and radiogenic isotope chemostratigraphy, sequence stratigraphy, major and trace-element geochemistry, and calibration of chronostratigraphy via radioisotope dating of zircons using CA-ID-TIMS.

### **David Mogk**

#### **Past Chair**

Dr. David Mogk is a professor of geology with the Department of Earth Sciences at Montana State University. His main research interests include: Evolution of Precambrian crust in southwestern Montana, including petrogenesis of continental crust, geochemical evolution of the crust, mid-crustal petrologic processes and tectonic evolution of the Wyoming Province from the Archean through the Proterozoic; Characterization of the morphology, composition, structure, and surface chemistry of minerals, using a combination of SEM/EDSBSE/CL, powder XRD, Time-of-Flight SIMS, X-ray photoelectron spectroscopy, and atomic force microscopy; Characterization of life in extreme environments, including Yellowstone hot springs and Lake Vostok (Antarctica) ice core; and Geoscience education, including development of digital libraries for Earth science education, teacher preparation and enhancement, and research on learning. He has his Master's degree and a Doctor of Philosophy both in geology from the University of Washington (1978 and 1984 respectively).

## **William Andrews**

### **Member**

Dr. William “Drew” Andrews is the Head of the Geologic Mapping Section at the Kentucky Geological Survey. His areas of expertise include GIS, geomorphology, and geologic mapping. He earned his Ph.D. in Geological Sciences from the University of Kentucky, is a Fellow of the Geological Society of America and the Kentucky Society of Professional Geologists, and is licensed as a professional geologist in Kentucky.

## **Niccole Villa Cervený**

### **Member**

Dr. Niccole Villa Cervený is a Mesa Community College geography and sustainability professor in Arizona. Cervený, a first-generation Hispanic, is the first community college representative to serve on the IUGS national committee. An expert on rock decay and rock art stability, Cervený’s expertise has taken her to amazing places across our planet including working with the U.S. Agency for International Development (USAID) Project in the Wadi Rum Protected Area in Jordan, summiting Mount Kilimanjaro in Africa with her husband and educational adventures in Iceland. A researcher herself, Cervený is the author of many scholarly articles chronicling her research and endeavors. She is passionate about helping students conduct undergraduate research and develop leadership skills.

## **Marjorie A. Chan**

### **Member**

Dr. Marjorie A. Chan has led an active nationally and internationally recognized research program emphasizing sedimentary geology and terrestrial analogs to Mars. Her research extends from sedimentology and diagenesis to geoconservation, geoheritage, and ethics. Chan has received awards and accolades for guest lectures and keynote addresses that have reached thousands of scientists and students around the world. In her career of leadership and service, she led major initiatives for women and diversity (e.g., GSA’s highly successful “On to the Future” program, AAPG’s Professional Women in Earth Sciences - now AAPG Women’s Network). She is a leader in AGU and GSA efforts to articulate geologic sampling ethics. From art to architecture, Chan finds innovative ways to engage the public and citizens of all ages. She has published 151 peer-reviewed publications and has been featured in National Geographic and Discovery Channel documentary films. She was the 2014 Geological Society of America’s Distinguished International Lecturer where she gave 53 lectures in 6 countries spanning India, New Zealand, Australia, China, Japan, and S. Korea. Dr. Chan was department chair for seven years (2002-2009). During this time she oversaw all the departmental programming for new construction of the LEED-certified, award-winning Geology & Geophysics building (Frederick Albert Sutton building), with educational, high-impact visual displays. Many hail this as the most spectacular Earth science building in the country.

## **Nazrul I. Khandaker**

### **Member**

Dr. Nazrul Khandaker is a professor of Earth and Physical Sciences at York College / CUNY. He has field and research experience in environmental geology, sedimentology, and tunnel geology. Khandaker utilizes field and geochemical studies to characterize and interpret a variety of geological systems. Khandaker worked as a geotechnical consultant (2001-2008) for the Water Tunnel #3: the largest capital construction project in NYC; facilitated soil and rock core characterization; compiled petrographic, geochemical and geotechnical reports, based on ASTM Standards. In 2018, Khandaker is recognized for lifetime career service to GSA, particularly in GSA initiatives supporting international participants, women, minorities, and students. He is a GSA Fellow, Certified Professional Geologist (State of Wyoming), and director of the NASA MUREP K1-12 STEM Program (2015-Present).

## **Adam C. Simon**

### **Member**

Dr. Adam C. Simon is the Arthur F. Thurnau Professor of Earth & Environmental Sciences and the Director of Michigan Research and Discovery Scholars at the University of Michigan. His research group combines experiments with field and laboratory work to understand the chemical and physical processes affecting element mobility in geologic systems, with a particular emphasis on how nature concentrates metals in small volumes of Earth's crust to form mineral deposits. Their research ultimately aims to improve genetic models for mineral deposit formation to ensure a sustainable supply of resources for our growing global population. He co-authored the authoritative book Mineral Resources, Economics and the Environment and published 100 papers in the field of energy and mineral resources. He works with clients to help them better understand upstream and downstream supply chains related to fossil and renewable energy including battery electric vehicles, and the impacts of these supply chains on less developed countries and indigenous communities. He brings a wealth of experience to projects having conducted research on 7 continents and 40 countries.

## **Marina B. Suarez**

### **Member**

Dr. Marina Suarez is an associate professor of geology at the University of Kansas. Her interests center around understanding past greenhouse climates (millions of years ago) using the rock record. Tools for understanding this include stable isotope geochemistry, sedimentology, petrography, and stratigraphy. Her first passion though is vertebrate paleontology, specifically dinosaurs. She has been lucky to work with a number of distinguished dinosaur paleontologists. She also directs the stable isotope lab at UTSA. Stable isotopes can be used in a wide range of disciplines including geology, archaeology, and ecology.

## **Thomas J. Casadevall**

### **Ex Officio Member**

Tom Casadevall is a Scientist Emeritus with the Geology, Geophysics, and Geochemistry Science Center. He is also a past chair of the IUGS national committee. He completed his master's degree in geology and his Ph.D. in geochemistry from Pennsylvania State University. His interest in volcanoes has led him to travel all over the world and combine his love of both anthropology and geology. In 1996, Casadevall began his tenure at the United States Geological Survey in the Office of the Director. He held several posts at the organization, including regional director for both the Western and Central regions, then as deputy director, and acting director. Throughout his career, he has had several remarkable experiences, from responding to the first earthquakes at Mount St. Helens to leading a response team to Hurricane Katrina in 2005. During the hurricane, Casadevall converted his team of scientists into search and rescue personnel. He and his team were credited with saving 600 lives and providing at least 2,000 people with food and supplies in the early days of the recovery effort. The team was honored with Service to America medals the following year. He was also awarded the Presidential Rank award, given to a small number of senior federal employees. Casadevall retired from USGS in 2008 and was honored with the Scientist Emeritus title from the organization.

## **Renee Clary**

### **Ex Officio Member**

## **Ester Sztein**

### **Ex Officio Member**

Dr. Ester Sztein is the inaugural Director of International Programs of the Geological Society of America. Until April 2023, she was Acting Director of NASEM's Board on International Scientific Organizations (BISO), where she oversaw the network of 17 U.S. National Committees for International Scientific Unions with special focus on the geosciences, data science, and psychological science. In particular, she managed the U.S. National Committees for IUGS, IUGG, IUSS, and INQUA and their activities for over 16 years and supported the U.S. delegations to all their union general assemblies during that period. She also served as Deputy Director of NASEM's Board on Research Data and Information (BRDI). Among her service to the geoscience community, Dr. Sztein served as president of the Geological Society of Washington (2020), is a member of Sigma Xi and numerous other scientific organizations and of AGU's Geohealth Section's Steering Committee and of the Technical Committee on Soil Systems and Critical Zone Processes. She earned her Ph.D. from the University of Maryland, College Park, and her B.Sc./M.Sc. from the University of Buenos Aires, Argentina.