“Responsibilities and Challenges for Earth Science in 21st Century Space”
Dr. Harrison Schmitt
Former NASA Astronaut
Albuquerque, NM

Dr. Schmitt earned his Ph.D. from Harvard University in 1964. Before joining NASA, he was with the U.S. Geological Survey Astrogeology Center. He was selected by NASA in 1965 to join the Scientist-Astronaut Program, where he oversaw lunar science training for the Apollo crews. On December 11, 1972, he and crewmate Eugene Cernan on Apollo 17, the last lunar mission, landed in the Lunar Module “Challenger” in the Taurus-Littrow Valley for a three-day exploration of lunar rock formations. After leaving NASA in 1975, Dr. Schmitt was a U.S. Senator from the state of New Mexico, has been a consultant, and Professor at Caltech and the University of Wisconsin-Madison.

“Red Rock to Red Planet: From Utah Marbles to Mars Blueberries”
Dr. Marjorie Chan
Chair, Department of Geology & Geophysics
Professor of Geology & Geophysics
University of Utah
Salt Lake City, UT

Dr. Chan received her Ph.D. from the University of Wisconsin-Madison in 1982 under R. H. Dott Jr. She is Professor and Department Chair at the University of Utah where she has served on the faculty for 22 years. She and her students have worked on a wide range of clastic sedimentology projects in the western U.S., ranging from the Precambrian through the Pleistocene. Her current research compares diagenetic studies of terrestrial concretions to hematite regions on Mars. She is a Fellow of the Geological Society of America, has been listed in the book “A to Z of Earth Scientists, Notable Scientists”, and is Principal Investigator for a NSF-sponsored, award winning video: "Women Who Walk Through Time".

"Weird Climate, Big Ice, and How to ‘Clean Up’ by Cleaning Up"
Dr. Richard B. Alley
Evan Pugh Professor
Department of Geosciences, and Earth and Environmental Systems Institute
The Pennsylvania State University
University Park, PA

Dr. Alley received his Ph.D. in Geology, with a minor in Materials Science, from the University of Wisconsin-Madison in 1987. He conducts research on paleoclimate and sediments as a means of projecting future changes in climate and sea level. He is a Fellow of the American Geophysical Union, and has been awarded a Packard Fellowship, a Presidential Young Investigator Award, the Horton Award of the American Geophysical Union Hydrology Section, the Eastern Brook Award of the Geological Society of America, as well as the Wilson Teaching Award, Mitchell Innovative Teaching Award, and Faculty Scholar Medal from the Pennsylvania State University. His book on abrupt climate change, The Two-Mile Time Machine, received the Phi Beta Kappa Science Award in 2001. Dr. Alley chaired a recent U.S. National Research Council study on Abrupt Climate Change. He is also the recipient of the 2005 University of Wisconsin Department of Geology and Geophysics Distinguished Alumni Award.
"The Future of the Hydrogen Economy"
Dr. John M. Eiler
Associate Professor of Geochemistry
Department of Geological & Planetary Sciences
California Institute of Technology
Pasadena, CA

Dr. Eiler obtained his Ph.D. from the University of Wisconsin-Madison in 1994 under Dr. John Valley. His research interests include isotopic studies of basalt volcanism and magmatic rocks, stable isotopes of cold environments on earth and other planets, and the origin and geochemistry of hydrogen and nitrogen in the environment. He has published extensively on the isotope geochemistry of hydrogen, carbon, nitrogen and oxygen in the mantle, crust, atmosphere, and oceans, as well as the origin of life in the Solar System. He has recently turned his attention to hydrogen and its possible role as an energy source. Dr. Eiler has been the recipient of several prestigious awards, including the David and Lucile Packard Fellowship, the Mineralogical Society of America Award, and the James B. Macelwane Medal from AGU.

"Evidence from the Earth-Forensic Geology"
Dr. Raymond C. Murray
Professor, School of Business Administration
University of Montana
Missoula, MT

Dr. Murray obtained his Ph.D. from the University of Wisconsin-Madison in 1955. His research has focused on carbonate and evaporite rocks, first at the Shell Development Company, and later at the University of New Mexico, as Chairman of the Geology Department at Rutgers University, and the University of Montana. He served as Vice President for Research and Professor of Geology at the University of Montana for 20 years until he retired in 1996; and is currently Professor in the School of Business Administration at the University of Montana. He has published several books on sedimentary rocks and forensic geology, has established methods for forensic examination and analysis of geologic materials, and has worked with crime laboratories around the world.