John Grotzinger

Chief Scientist and Head of Strategic Planning for the Mars Rover Mission

Dr. John Grotzinger is the chief scientist and head of strategic science planning for NASA's $2.5 billon ***Curiosity*** rover mission to Mars, which riveted the country with its dare-devil landing and remains the most complex spacecraft to ever land and operate on the surface of another planet. A veteran geologist of more than 30 years of exploration of Earth and Mars, Grotzinger has led expeditions to the far corners of the globe and heads the most visible mission in the history of robotic space exploration in its search for evidence of past life. He received NASA's prestigious Outstanding Public Leadership Medal for the unprecedented success of the mission, and ***Popular Mechanics*** named him No. 2 on its list of "10 Innovators who Changed the World." ***Discover*** magazine also listed the Mars Curiosity rover giving researchers unprecedented access to the Red Planet as No. 1 in its list of the "Top 100 Science Stories of 2013." Exclusively represented by Leading Authorities speakers bureau, Grotzinger discusses strategic planning, motivating and leading teams working under intense pressure, and the need to take on a "grand challenge" while sharing awe-inspiring and cutting-edge stories, video, and photos about space and unexplored territories of Mars. Grotzinger combines tales of adventure and discovery with lessons in leadership, consensus building, and novel applications of technology that is literally out of this world.

Mars Exploration. Leading a team of more than 450 scientists, Grotzinger is responsible for future planning, parallel operations, determining ***Curiosity's*** exploratory sites, and ensuring smooth and productive collaboration between several independent engineering teams—a key element of mission success. The rover's objectives include characterization of the Martian landscape, measuring radiation levels to enable future human exploration, and analyzing soil and rock samples in an effort to find environments that could have once supported life. Since 2003, Grotzinger also has worked on the ***Spirit*** and ***Opportunity*** rovers. In 2004, he and ***Opportunity*** rover team made the discovery of evidence for liquid water on ancient Mars based on image, mineralogical, and chemical data. In 2007, he became a member of the HiRISE camera imaging team on Mars Reconnaissance Orbiter.

Geological Roots. Grotzinger is interested in the evolution of surficial environments of Earth and Mars. Because the planets are thought to have had similar early climates and geologic conditions, his work on early Earth helps guide ***Curiosity's*** exploration of early environments on Mars. He has led field missions to arctic Canada, Siberia, Africa, and Oman and has worked closely with the oil and gas industry, serving as a consultant for frontier exploration in the Middle East. For his great contributions to understanding the co-evolution of life and environment on early Earth, Grotzinger received the Charles Doolittle Walcott Medal from the National Academy of Sciences—awarded once every five years. For his work in the geology and geochemistry of hydrocarbon exploration, he was honored with the 2012 Halbouty Award of the American Association of Petroleum Geologists.

Education & Professorships. Grotzinger was the Robert Shrock professor of geology at MIT, were he worked from 1988 to 2005. There, he was also named the Waldemar Lindgren distinguished scholar. He moved to the California Institute of Technology (Caltech), where he was the Moore distinguished scholar in 2004 and the Fletcher Jones professor of geology starting in 2005. He was also a distinguished visiting scientist at NASA's Jet Propulsion Laboratory from 2004 to 2006.