GSA PRESIDENT'S MEDAL

Presented to
Thomas H. Jordan

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Southern California Earthquake Center

Citation by Suzanne Kay

"The Geological Society of America established and commissioned the President's Medal to recognize and be conferred upon an individual, groups, or entities whose impact has profoundly enhanced the geosciences profession: through supporting and contributing to the Society; by advancing geosciences, enhancing professional growth, and/or promoting geosciences in service of humankind; and/or by significantly enlarging the range of scientific achievement for the growth of our profession." The selection is made by the president of the Geological Society of America with the approval of the GSA council and is awarded at the fall meeting following the president's term.

It is in this vein that my choice as the immediate past president of the Geological Society of America for the 2014 President's Medal is a GSA fellow, who is an outstanding member of the geosciences community, has made exceptional intellectual contributions to the field of geological sciences and has played a prominent role in promoting geosciences in the service of humanity. I can think of no one more deserving of the GSA President's medal than the noted American seismologist Professor Thomas Hillman Jordan, who is currently University Professor and the William M. Keck Professor of Earth Science at the University of Southern California. He is also importantly the director of the Southern California Earthquake Center, known as SCEC, which is a leading consortium for earthquake research. SCEC is made up of more than 60 institutions and serves as a spokesman on questions concerning seismicity. Before arriving at USC, Professor Jordan was the head of the Earth, Atmospheric and Planetary Sciences Department at the Massachusetts Institute of Technology. Over his distinguished career, he has studied earthquakes, the seismological study of the earth's structure and geodetic observations of plate motions and interplate deformation. He has had a continuing interest in questions of continental formation and tectonic evolution. During his career to date, he has been an author on more than 200 scientific publications, including two popular textbooks (with J. Grotzinger) Understanding Earth, 6th ed. and The Essential Earth, 2nd ed, Jordan is among the most cited authors in Earth Science on Google scholar with almost 17000 citations.

His distinctions are too numerous to list. As examples in his career, he has been awarded the James B. Macalwane medal for outstanding young scientists from the American Geophysical Union, the George P. Woollard Award of the seismological section of the Geological Society of America, fellowship in a number of societies including the American Geophysical Union and Geological Society of America, membership in both the American Academy of Arts and Sciences and the National Academy of Sciences, a National Associate Award by the National Academy of Sciences, membership in the American Philosophical Society, and the American Geophysical Union Inge Lehmann Medal for outstanding contributions to the understanding of the structure, composition, and dynamics of the Earth's mantle and core." On the service side, he received the American Geological Institute award for Outstanding Contribution to Public Understanding of the Geosciences in 2012.

As a few examples of his public outreach, he wrote an opinion piece in the New Scientist entitled "Don't blame Italian seismologists for quake deaths" during the time of the intense debate on the role of scientists and the government in earthquake predictions in the aftermath of the tragic 2009 earthquake in L'Aquila, Italy. He also appeared on National Public Radio's "All things considered" to discuss the issues of science, disaster forecasting and the public. He has more recently weighed in on human causes of earthquakes in Oklahoma and in a message to those in California with the statement "We're going to get hammered and I think people are going to be amazed at what an earthquake is going to do." He is a go-to guy on questions on earthquakes and their prediction and interpreting their meaning to the community. Please come and hear his lecture this afternoon entitled "Prediction Problems of Earthquake Systems Science" Unlike many previous winners of the GSA President's Medal, this will not be his first talk at GSA and we hope it will be one of many to come.

I am delighted to present the 2014 President's Medal of the Geological Society of America to Professor Thomas Hillman Jordan.

Response by Tom Jordan

Suzanne, thank you very much for this award and your generous citation. I know you have great latitude in who you select to receive the GSA President's Medal, and I am very honored that you have chosen me to join a group of past medalists that comprises distinguished writers, software developers, educators, and philanthropists, as well as a noted artist and an eminent jurist.

This is a very special award for me personally, because it comes from the leadership of a society I greatly admire. I have always thought of myself as a scientist who uses the tools of physics to do geology, and I'm always happy when I'm in the field with real geologists who have their boots on and hammers in hand.

And you know that's one thing about science—most of it is done by happy people who have a sense of wonder and enjoy the privilege of exploring the world around them. In this regard I'd like to thank the people who have made me happy: my family, especially my wife Margaret, who is here with me today, and my children, as well as my many friends, teachers, and colleagues who, for the most part, are also happy explorers.

Indeed, my scientific accomplishments have primarily resulted from my collaborations with scientific colleagues and students. This has been especially true during the most recent phase of my career as director of the Southern California Earthquake Center, and I take this award to be a tribute to what is, by all measures, a very special collaboration.

SCEC's mission is earthquake system science. We can't predict earthquakes, which means we don't really understand them. And, as I constantly remind students new to the field, we can be confident that great discoveries lie ahead. In earthquake system science, we try to build our predictive understanding brick-by-brick, drawing

from the knowledge of many disciplines—seismology, earthquake geology, tectonic geodesy, and computational science. In particular, SCEC has taught me the importance of deep collaborations, which, like deep friendships, are special because they are based on personal and trustful interactions sustained over many years, repeatedly successful and mutually rewarding.

So let us here celebrate the joy of science well done, and not yet done, and let us reflect on the happiness it brings to all of us who have the pleasure of working to gain new knowledge about this very interesting and dynamic planet. And thank you again, Suzanne, for an honor that I can share with many others.

View images and full text from
Thomas H. Jordan's Gold Medal Lecture at
http://www.geosociety.org/awards/14speeches/GML-PresMedal.pdf