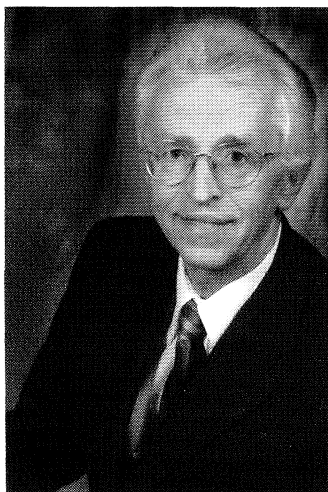


2004 ACTA MATERIALIA, INC. J. HERBERT HOLLOMON AWARD



The 2004 Acta Materialia, Inc. J. Herbert Hollomon Award has been awarded to Dr. Siegfried S. Hecker. Dr. Hecker is currently Senior Fellow at the Los Alamos National Laboratory, having served as its director from 1986 to 1997. He has pursued a life-long

fascination with materials, first at General Motors and then at Los Alamos. At General Motors, he helped to identify the materials characteristics crucial for sheet metal forming and developed key testing techniques to measure these characteristics. He also helped to develop the fundamental scientific underpinnings for these applied technologies with pioneering work in large-strain plasticity and multi-axial deformation. At Los Alamos, his principal interests have been to understand the unusual behavior of plutonium and the actinides. Dr. Hecker has successfully brought together the metallurgical and condensed-matter physics communities to help explain the notorious instability of plutonium metal and its alloys, and why plutonium defies conventional metallurgical wisdom. He has made seminal contributions to understanding phase instability and phase transformations in plutonium. He has put this knowledge to work to help ensure that the nation's nuclear weapons stockpile is safe, secure and reliable.

As director of the Los Alamos National Laboratory, he helped guide the laboratory through an unprecedented transition in geopolitics as the Cold War came to a sudden and unexpected end. He had the responsibility of certifying the safety and reliability of the nuclear weapons designed at Los Alamos to the President of the United States. In the early 1990s, he spearheaded U.S. efforts for

cooperation between the nuclear weapons complexes of the United States and Russia shortly after the demise of the Soviet Union. He recognized that suddenly the United States and the free world were threatened more by Russia's weakness than her strength. Specifically, he initiated what is now called the Department of Energy's lab-to-lab program between the nuclear institutes of Russia and the United States to assist a troubled and oversized Russian nuclear complex secure its nuclear materials and prevent the leakage of crucial weapons know-how. He accelerated these efforts after 1998 and expanded them to include preventing and responding to terrorism with weapons of mass destruction. Much of this activity is currently being conducted under the umbrella of the National Academies. He co-chairs the joint U.S.-Russian Committee on Counterterrorism Challenges in the United States and Russia and serves on the joint Nuclear Nonproliferation Committee. He was elected a foreign member of the Russian Academy of Sciences in 2003. Dr. Hecker has also served a number of other organizations, such as the Nuclear Threat Initiative, with similar goals of providing for a safer world.

In addition to his current research efforts on plutonium science, Dr. Hecker continues to pursue ways in which scientists and engineers can provide for a safer and better world. In addition to his national security interests while director of the Los Alamos National Laboratory, he provided national leadership for the initiation of the Human Genome project, the HIV/AIDS database, global climate change modeling, the development and application of high-temperature superconductors, and cooperation between the national laboratories and U.S. industry.

Dr. Hecker and his wife of 38 years, Nina, live in Los Alamos, NM. They have four daughters and two grandchildren.

The 2004 Acta Materialia, Inc. J. Herbert Hollomon Award will be presented to Dr. Siegfried Hecker at the Spring TMS Meeting (14-18 March 2004) in Charlotte, North Carolina.