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Department of Materials Science and Engineering  
and the Robert R. McCormick School of Engineering  
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**McCormick**

**Northwestern Engineering**

**The inaugural**

## Morris E. Fine Lecture

“Materials Science at the Intersections  
of Nanotechnology, Life Sciences, and  
Human Health”

Presented by

**Subra Suresh**

Dean of Engineering and  
Vannevar Bush Professor of Engineering  
Massachusetts Institute of Technology

**Friday, October 16, 2009**

**Lecture 4 p.m.**

*Auditorium, Technological Institute*

*2145 Sheridan Road, Evanston*

*Reception to follow in the Cohen Commons*

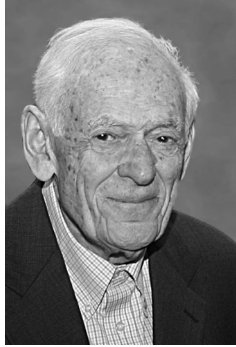


**NORTHWESTERN  
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Robert R. McCormick School of  
Engineering and Applied Science  
Northwestern University

## Morris E. Fine

Morris E. Fine, Walter P. Murphy and Technological Institute Professor Emeritus of Materials Science and Engineering, is a pioneer in teaching the unifying concepts underlying all classes of materials: metals, ceramics, polymers, and electronic materials.



He is a founder of Northwestern's materials science and engineering department, the first of its kind in the world. His research career at Northwestern has spanned a broad range of topics, from physical chemistry to mechanical behavior, and includes studies on metals and alloys, ceramics, and composite materials.

Fine received his PhD in physical metallurgy from the University of Minnesota in 1943. After working on the Manhattan Project in Chicago and Los Alamos, he worked for Bell Labs until 1954, when he came to Northwestern.

Fine is a member of the National Academy of Engineering and the American Academy of Arts and Sciences. He is a fellow of the Metals, Minerals and Materials Society (TMS), ASM International, the American Ceramic Society, and the American Physical Society. He is an honorary member of the American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME) and the Japan Institute of Metals.

He continues to publish and has more than 300 papers to his credit. He has received numerous awards, most recently the TMS 2009 Application to Practice Award for research that led to a new steel with better corrosion resistance, toughness, and welding properties. This steel was selected to be used for a new bridge in northern Illinois.

## Subra Suresh

Subra Suresh is the dean of engineering and Vannevar Bush Professor of Engineering at Massachusetts Institute of Technology, where he holds joint faculty appointments in materials science and engineering, mechanical engineering, biological engineering,



and health sciences and technology. He is recognized internationally for his contributions to the areas of mechanical behavior of materials, surface engineering, nanotechnology, and cell and molecular nanomechanics, particularly as they relate to infectious diseases and cancer. He has authored more than 200 journal articles, three widely used books, and 15 patents.

Suresh has been elected to National Academy of Engineering in the United States, the American Academy of Arts and Sciences, the Indian National Academy of Engineering, the Indian Academy of Sciences, the Royal Spanish Academy of Sciences, the Academy of Sciences of the Developing World, and the German National Academy of Sciences. He has been elected a fellow or honorary member of all of the major materials professional societies in the United States and India.

A recipient of the 2006 Acta Materialia Gold Medal, the 2007 European Materials Medal (the first awarded to a non-European), the 2008 Eringen Medal of the Society of Engineering Science, and a Senior Humboldt Research Prize, Suresh holds an honorary doctorate from Sweden's Royal Institute of Technology. In 2006 MIT's Technology Review magazine selected him as one of the top 10 researchers whose work will have "significant impact on business, medicine, or culture."

Among his recent leadership activities, Suresh has been the founding director of GEM4 (Global Enterprise for Micromechanics and Molecular Medicine), faculty leader of MIT's efforts to establish the Singapore-MIT Alliance for Research and Technology Center, founding chair of the first Program on Advanced Materials of the Singapore-MIT Alliance, and 2000-06 head of MIT's Materials Science and Engineering Department. Suresh also has served as a consultant, adviser, or member of the governing/advisory boards of a number of international organizations. More than 100 students, postdoctoral fellows, and visiting researchers who trained in his research group occupy prominent positions in academia, industry, and government around the world.

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