

# Stanford CISAC Center for International Security and Cooperation

FSI  
Freeman Spogli  
Institute for  
International Studies

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### About CISAC

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### Publications

Nuclear Risk and Cooperation  
Cyber Policy and Security  
Biosecurity and Global Health  
Terrorism, Insurgency and Homeland Security  
Governance, Organizations and Security  
Migration and Transnational Flows  
Regional Conflict and Cooperation

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### Empirical Studies of Conflict

Initiative on International Conflict and Negotiation  
Mapping Militant Organizations  
Nuclear Risk Reduction Initiative  
Preventive Defense Project  
Project on Peace and Cooperation in the Asian-Pacific Region  
Stanford-UNHCR Project on Rethinking Refugee Communities

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Social Science Seminar Series  
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## Siegfried S. Hecker, PhD

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## Research Interests

plutonium science, nuclear weapons stockpile stewardship, cooperative threat reduction

## Bio

**Siegfried S. Hecker** is a professor (research) in the Department of Management Science and Engineering and a senior fellow at the Freeman Spogli Institute for International Studies (FSI). He was co-director of CISAC from 2007-2012. From 1986 to 1997, Dr. Hecker served as the fifth Director of the Los Alamos National Laboratory. Dr. Hecker is an internationally recognized expert in plutonium science, global threat reduction, and nuclear security.

Dr. Hecker's current research interests include plutonium science, nuclear weapons policy, nuclear security, and the safe and secure expansion of nuclear energy. Over the past 20 years, he has fostered cooperation with the Russian nuclear laboratories to secure and safeguard the vast stockpile of ex-Soviet fissile materials.

Dr. Hecker's research projects at CISAC focus on reducing the risks of nuclear terrorism worldwide and the challenges of nuclear India, North Korea, Pakistan, and the nuclear aspirations of Iran. Dr. Hecker is also compiling and editing a book with two of his Russian colleagues on the history of Russian-U.S. laboratory-laboratory cooperation since 1992.

Dr. Hecker joined Los Alamos National Laboratory as graduate research assistant and postdoctoral fellow before returning as technical staff member following a tenure at General Motors Research. He led the laboratory's Materials Science and Technology Division and Center for Materials Science before serving as laboratory director from 1986 through 1997, and senior fellow until July 2002.

Among his professional distinctions, Dr. Hecker is a member of the National Academy of Engineering, foreign member of the Russian Academy of Sciences, fellow of the TMS, or Minerals, Metallurgy and Materials Society; fellow of the American Society for Metals, fellow of the American Physical Society, honorary member of the American Ceramics Society, and fellow of the American Academy of Arts and Sciences.

His achievements have been recognized with the Presidential Enrico Fermi Award, the American Physical Society's Leo Szilard Prize, the American Nuclear Society's Seaborg Medal, the Department of Energy's E.O. Lawrence Award, the Los Alamos National Laboratory Medal, among other awards including the Alumni Association Gold Medal and the Undergraduate Distinguished Alumni Award from Case Western Reserve University, where he earned his bachelor's, master's, and doctoral degrees in metallurgy.

## Publications

Combine fields filter

All

For the People

Iran's Path to Nuclear Peace

Nuclear Energy and Nuclear Security in South Korea Longer GAA on North Korea

More Publications

## Multimedia

All

Spent Fuel Storage in China - A Comprehensive Study

Spent Fuel Storage in China - A Comprehensive Study

Nunn, Hecker, Taubman: World's Most Pressing Nuclear Challenges Question and Answer Session on the DPRK-U.S. Agreement

More Multimedia

## Research

Project on Peace and Cooperation in the Asian-Pacific Region Strengthening Security and Stability in South Asia

Nuclear Risk Reduction

Preventing Nuclear Proliferation and Terrorism

Lab-to-Lab Cooperation

## Topics

Energy

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Nuclear Energy

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Nuclear Risk

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Nuclear Safety

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Science and Technology

## Centers

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[Center on Food Security and the Environment](#)  
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[Center for International Security and Cooperation](#)  
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## Programs

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## Initiatives

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## Partners

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## FSI Topics and Regions

### Governance

- Democracy
- Elections
- Human Rights
- Information Technology
- Institutions and Organizations
- Policy Analysis

### International Relations

- Foreign Aid
- Foreign Policy
- Migration and Citizenship
- Trade

### Health and Medicine

- Disease
- Global Health
- Health Care
- Health Outcomes
- Nutrition
- Public Health

### International Development

- Economic Affairs
- Education
- Entrepreneurship
- Food Security
- Poverty
- Science and Technology

### Security

- Biosecurity
- Conflict
- Crime
- Cybersecurity
- Food Security
- Nuclear Risk
- Terrorism

### Energy

- Electricity
- Energy and Climate Policy
- Energy Infrastructure
- Energy Services
- Fossil Fuels
- Nuclear Energy
- Renewable Resources

### Environment

- Agriculture
- Aquaculture
- Climate
- Natural Resources

### Society

- Aging
- Culture
- Education
- Ethnicity
- Gender
- Migration and Citizenship
- Religion

### Regions

- The Americas
- Asia-Pacific
- Europe
- Middle East and North Africa
- Russia and Eurasia
- Sub-Saharan Africa