

ENHANCING NUCLEAR SECURITY

MacArthur's grantmaking in the area of nuclear security seeks to prevent nuclear terrorism, address security challenges arising from national efforts to develop nuclear capabilities, and promote stabilizing nuclear weapons reductions.

WHY NUCLEAR SECURITY MATTERS

- Terrorist organizations such as al-Qaeda are clearly interested in acquiring and using nuclear weapons.
- The essential component of a nuclear weapon is fissile material — highly enriched uranium and separated plutonium.
- Enough fissile material is currently stockpiled around the world to produce in excess of 100,000 nuclear weapons. Much of this material is inadequately secured.
- Just a soccer ball-sized piece of highly enriched uranium, or a grapefruit-sized piece of plutonium, would be enough for a terrorist to make a simple nuclear device.
- As nuclear power becomes an important means of diversifying energy portfolios and reducing carbon emissions, fissile material stockpiles are set to grow, raising the risk of theft or diversion.



WHAT WE FUND

Policy Research

The Foundation focuses on preventing nuclear terrorism by denying terrorists access to fissile materials—highly enriched uranium and separated plutonium.

Supported policy research projects aim to prevent the theft or diversion of fissile

materials from military and civilian sites, and ensure that the inevitable growth in nuclear power to diversify energy portfolios and reduce carbon emissions does not increase the availability of fissile materials for terrorist groups.

In addition, we support a limited number of innovative projects that 1) provide new insights and approaches to security challenges arising from national efforts to develop nuclear capabilities (e.g. North Korea and Iran); and 2) seek to effectively address, in a stabilizing manner, the strategic implications of deeper reductions in nuclear arsenals.

Advanced Education

Effective policymaking on nuclear security matters requires the best advice from diverse fields including the natural and social sciences, nuclear industry, and policy world, among others. It also entails public debate, which takes different forms in different countries but is rarely altogether absent. As a result, policymakers and the public need advice from experts capable of using their specialized expertise to inform policy decision-making and debates. We support a small group of institutions that provide advanced interdisciplinary training in the field of nuclear security at the graduate and post-doctoral levels.

REPRESENTATIVE GRANTS

Policy Research

NUCLEAR THREAT INITIATIVE

\$1 million in part to produce the second edition of its Nuclear Materials Security Index—a public bench-marking project of nuclear materials security conditions on a country-by-country basis. (2012)

STIMSON CENTER

\$425,000 to promote industry solutions to the nuclear proliferation threat. (2013)

ARMS CONTROL ASSOCIATION

\$415,000 to support research projects on nuclear materials security and nuclear threat assessments. (2014)

CENTER FOR ENERGY AND SECURITY STUDIES (RUSSIA)

\$400,000 in support of a project to promote highly enriched uranium minimization in Russia. (2012)

AMERICAN ACADEMY OF ARTS AND SCIENCES

\$280,000 in support of a project to counter the insider threat in nuclear facilities. (2011)

CENTER FOR A SECURE NUCLEAR FUTURE

\$220,000 to support the Fissile Materials Working Group, a non-governmental coalition of more than 65 U.S. and international organizations working to provide action-oriented policy solutions to keep the world safe from nuclear terrorism. (2013)

Advanced Education

BELFER CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS, HARVARD UNIVERSITY

\$2.48 million to support the Project on Managing the Atom, which trains the next generation of nuclear security policy experts. (2011)

PROGRAM ON SCIENCE AND GLOBAL SECURITY, PRINCETON UNIVERSITY

\$1.8 million to support a two-year postdoctoral program, seminar series, and fellows for science and engineering pre-doctoral students with the goal of producing a new generation of nuclear security experts. (2013)

CENTER FOR INTERNATIONAL SECURITY AND COOPERATION, STANFORD UNIVERSITY

\$2 million to help train future nuclear security policy experts. (2011)

CENTER FOR SCIENCE AND SECURITY STUDIES AT KING'S COLLEGE LONDON

\$1.65 million to train future nuclear experts. (2011)

MONTEREY INSTITUTE FOR INTERNATIONAL STUDIES

\$500,000 to train the next generation of nuclear security experts through advanced disciplinary training in the areas of nuclear security and nonproliferation. (2012)

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About the MacArthur Foundation

The John D. and Catherine T. MacArthur Foundation supports creative people and effective institutions committed to building a more just, verdant, and peaceful world. In addition to selecting the MacArthur Fellows, the Foundation works to defend human rights, advance global conservation and security, make cities better places, and understand how technology is affecting children and society.

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