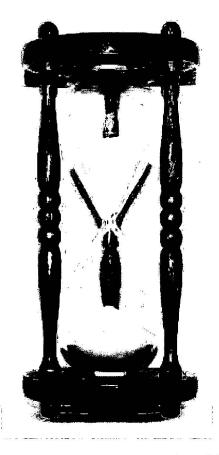
HOURGLASS INITIATIVE



"The more sand that has escaped from the hourglass of our life, the clearer we should see through it." — Richter

MISSION:

The Hourglass Initiative, Inc. is a non-profit worldwide NGO organized by the scientific community to:

- (a) Promote codes of ethical conduct, education, and outreach efforts among scientists, engineers, and technologists to limit the spread of Weapons of Mass Destruction ("WMD"s),
- (b) To develop and employ secure web-based anonymous technologies and other methods to allow scientists and others concerned with WMD proliferation to whistle-blow on such activity internationally,
- (c) Support and encourage scientists, researchers, journalists, and others to investigate and expose illicit WMD activities.

BACKGROUND:

With rapid advances in biotechnology and with greater dissemination of biological, nuclear, and chemical weapons

research and technology, the ability for unethical scientists to manufacture weapons of mass destruction (WMD) has increased exponentially in the past few years and will continue for the foreseeable future.

A decade ago, the complexity of manufacturing WMDs required huge infrastructure and funding that only governments (and the corporations they contracted with) could exclusively provide. The democratization of scientific technology and information now means governments no longer may exclusively sponsor or sanction the process of creating devastating weapons that can be readily employed against civilian targets.

Today, with revolutionary advances in biotechnology and the illicit trade in nuclear and chemical weapons manufacturing and dispersal methods, scientists have unrivalled opportunities to create and deploy nuclear, biological, and/or chemical weapons on behalf of rogue nations and terrorists groups.

A core mission of the intelligence community, of course, has been to identify such threats as these scientific capabilities continue to grow. But agencies have limited scientific resources (especially lacking personnel with sufficient training and specialized knowledge of emerging threats.) They have largely focused their efforts on prominent "rogue" governments and terror organizations. So far, they have had mixed results identifying such threats: (i.e., accurately assessing the status of chemical and biological weapons in Iraq; discovering nuclear weapons research facilities in Syria and Iran; unveiling the former Soviet Union's enormous biological weapons capabilities, etc.)

Equally troubling is how these intelligence agencies have, in large part, been unsuccessful in early detection of "independent" threats: (i.e., the release of nerve gas on Tokyo subways; the anthrax attack that shut-down Senate office buildings; the scientific consortium in Pakistan that sold nuclear bomb-making instructions and precision technology to numerous countries.)

As destructive technology becomes simpler to develop and deploy, scientists must join the frontlines in the battle to protect the public from those in their discipline whose intention is to cause great harm. Scientists have the unique vantage-point, expertise, and responsibility to insure illicit activities are monitored, contained, and disclosed.

Standards, codes of ethics, and self-regulation are not antithetical to innovative research and professional scientific practice. For example, in the medical and health sciences, doctors and practitioners have, for millennia, been taught to embrace the Hippocratic Oath: essentially "First, Do No Harm." Ethical standards of conduct have evolved as the bedrock of medical culture and practice. Standardized codes, regulations, and accepted practices guide all medical research and define professionalism. These mandate that those who intentionally cause harm practicing medicine must be sanctioned and punished. Enforcement and sanctions, overseen by review boards of professional medical organizations, are at the core of maintaining successful conduct. That such standards are widely understood and expected by the broad social community substantially encourages compliance by medical practitioners and researchers.

Scientific and engineering societies also have established varied and sophisticated codes of ethical standards and practices. In sharp contrast to medical standards, most engineers and scientists are not introduced to significant codes of conduct until reaching post-graduate study (if at all.) Ethical concepts and expectations of ethically-compliant behavior are rarely introduced early in the education of scientists and engineers. There is little knowledge and expectation in the general community that scientists and engineers require or must adhere to ethical standards of behavior. Scientific societies that promote ethical guidelines lack substantial means of sanctioning scientists who ignore such codes.

Some scientists have historically resisted ethical constraints as antithetical to open and unfettered enquiry. Yet many leading scientists, including the late Sir Joseph Rotblat, winner of the Nobel Peace Prize, have embraced the urgent need for enforceable codes of conduct. While individual scientists with terrorist aspirations are unlikely to be deterred by any "codes" no matter how well-defined, having ethical standards widely inculcated in the broad scientific community may well deter others on the periphery of such work. More significantly, a society understanding clearly-defined standards will encourage scientists and engineers with suspicions about unsavory behavior to help uncover and report potential threats to their peers.

Like many concerned scientists and terrorism experts, we are responding to a world in which scientific discovery has and will fuel growing terrorist threats:

EXAMPLES:

Aum Shinrikio cult orchestrated a sophisticated biological and chemical weapons
program culminating in the sarin nerve-gas attack which killed 12 and injure hundreds.
Fortunately, their earlier attempt at dispersing a sizable quantity of anthrax in downtown
Tokyo failed largely because they obtained the wrong (non-lethal) strain of the bacterium.

- Pakistani nuclear scientist A.Q. Khan headed a massive and lucrative effort (with the
 assistance of international scientists and corporations) disseminating nuclear secrets and
 critical weapons technology to several "rogue" nations (including Libya and North
 Korea.) Khan discussed the possibility that nuclear technology might be shared among
 Islamic countries, "specifically mentioning Iraq, Libya, and Iran."
- Intelligence, recovered in Afghanistan, revealed Al Qaeda began construction of a biological weapons lab; received guidance from Pakistani microbiologists; attempted to acquire and weaponize strains of anthrax and ricin; and engaged other scientists to provide guidance in designing dispersal mechanisms for biological, chemical, and nuclear "dirty-bomb" weaponry. Research into WMD projects has been carried out by Al Qaeda affiliates in Europe, the Caucasus, and in Central and Southeast Asia.
- Al Qaeda leaders met at length with several nuclear weapons scientists and, with the Taliban regime, attempted to recruit others. They repeatedly attempted to buy stolen nuclear materials in Russia to make a nuclear weapon as well as a 'dirty bomb'.
- British intelligence is investigating allegations that a Bulgarian businessman was approached by a middleman for bin Laden seeking to obtain radiological materials. The businessman was also met by a "chemical engineer", near Rawalpindi, to help the scientist obtain highly radioactive spent nuclear fuel rods from a Bulgarian nuclear power plant.
- In 2001, customs officials at the Uzbekistan/Kazakhstan border seized 10 lead-lined containers holding a substantial quantity of radioactive materials. These materials were ostensibly intended for a company in Quetta, Pakistan but the suspected end-user was bin Laden's Al Qaeda.
- In 2006, teams of MIT undergraduate students genetically re-engineered e-coli to smell like mint and bananas, showing the relative simplicity of modifying potentially harmful biological agents.
- In Oct. 2008, Mohamed ElBaradei, chief of the International Atomic Energy Agency, declared to the UN Security Council that the number of thefts of atomic materials was "disturbingly high." His report cited nearly 250 thefts in the year ending in June. "The possibility of terrorists obtaining nuclear or other radioactive material remains a grave threat", ElBaradei said. "Equally troubling is the fact that much of this material is not subsequently recovered."

Many other valuable organizations and institutions focus on specific threats and on fostering international conventions to restrict nuclear, chemical, and biological weapons proliferation. As technology allows more scientists to create powerful weapons of mass destruction with less effort, the situation requires an entity, led by and for scientists, to identify and expose those intent on doing public harm.

ACTIVITIES:

Hourglass Initiative activities fall into three main areas:

> To promulgate, support, and publicize clear codes of scientific ethical responsibility. As scientists become increasingly able to change the world they must embrace greater

- responsibilities protecting it. We will work within the scientific, engineering, and educational community to help identify existing and potential threats. We will develop programs and curriculum introducing codes of ethics at an early point in the educational career of scientists and engineers. The broader public must be aware of the ethical responsibilities scientists face. We will encourage peer-review certification and other methods to enhance scientists promote and comply with codes of ethics.
- ➤ To use and develop new technologies, including web-based "Wikileads" approach, to encourage scientists and others to safely and anonymously submit information on possible illicit behavior regarding the manufacture of WMDs to our investigation team. In addition, we will also develop methods to reward scientists and others who successfully identify and deter significant perpetrators of such proscribed behavior.
- ➤ To research and investigate allegations of illicit efforts by scientists, technicians, and engineers to create such devastating weapons technologies and to subject such efforts to public disclosure.

The Hourglass Initiative works within the scientific, engineering, academic, and journalistic communities to deter those who would create weapons of mass destruction. We will continue to collaborate and engage non-proliferation organizations, NGOs, regulatory entities, educational institutions, and others to develop curricula and to share expertise. We will continue to partner with security, encryption, and privacy entities to develop and enhance technical methods for assuring anonymity and safety for whistle-blowers.

FUNDING:

The Hourglass Project will be a non-profit 501(c) (3) foundation, incorporated in New York State, that accepts support from individuals and organizations concerned with and knowledgeable about these increasing threats. To avoid conflict of interest, the Foundation will not accept funding from any government agencies or entities with partisan and/or nationalist agendas. The Foundation will work with anyone willing and able to indentify WMD threats and to help educate and enlist scientists and others in this effort. The Foundation will, as appropriate, work with other organizations involved in arms control, nonproliferation, and in advancing ethical scientific behavior to deter, control, and hopefully eliminate WMD threats.

ACTION PLAN:

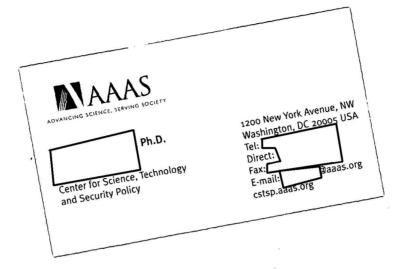
- CODE OF ETHICS Work with the scientific community, to create, adopt, and promulgate effective expressions of benevolent scientific ethical behavior.
- EDUCATION Beginning at the college and graduate level, establish programs and projects that will engage and involve scientists-in-training in the discussion of ethical responsibilities
- RESEARCH –Identify scientists working on WMD technologies designed to cause public harm. The foundation will, among other efforts, use new technologies, including establishing a "whistleblower" website to allow scientists and others to anonymously post information and potential leads to reveal suspected roque WMD efforts.
- DATABASE Maintain up-to-date profiles and archives on scientists and others who are reportedly involved in WMD proliferation efforts.

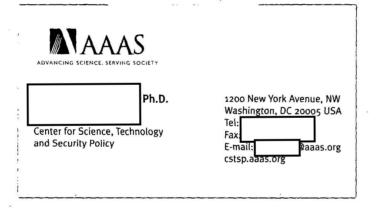
- INCENTIVES Devise and fund programs to reward scientists and others who reveal and expose individuals and activities involved in WMD proliferation.
- ANALYSIS Assess and verify reports of threats.
- COMMUNICATION Report, confront, and expose rogue scientists in public and transparent forum.

STRUCTURE:

- BOARD OF DIRECTORS Create a world-class Board comprising of notable scientists, experts on weapons of mass destruction, technology and privacy experts, as well as educators, business management, public relations, and legal experts.
- EXECUTIVE DIRECTOR Supervises the Hourglass Initiative programs, projects, investigations, and staff. Reports to the Board of directors.
- GOVERNMENT DIRECTOR Communicates with law-enforcement and investigative communities.
- SCIENTIFIC DIRECTOR Coordinates with scientists, engineers, and technologists on threats. Supervises technology projects to enhance the Hourglass Initiative mission.
- EDUCATION DIRECTOR Coordinates educational programs with colleges and universities where scientists are trained and develops additional programs and forum to facilitate mission goals.
- LEGAL COUNSEL- Coordinates legal strategy and internal and external review of foundation activities.
- PUBLIC RELATIONS DIRECTOR- Supervises outreach, publicity, and other public communication efforts.
- FINANCE DIRECTOR H.R., budget, planning, office management, and fundraising activities.
- SECURITY Supervises staff security and advises foundation staff on technical and other methods to protect sources.

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ADVANCING SCIENCE, SERVING SOCIETY	
Ph.D. Center for Science, Technology and Security Policy	1200 New York Avenue, NW Washington, DC 20005 USA Tel: Fax E-mail cstsp.aaas.org

AAAS MEETING From: @aaas.org] Sent: Thursday, May 20, 2010 11:17 AM -To: b6 b7C Cc: Subject: RE: Report you may find interesting, and request to meet to discuss academia/law enforcement interactions how about 3:00 on Tuesday? @ic.fbi.gov> 5/20/2010 8:21 AM >>> Tuesday is fine here at HQ, but it would have to be after 11:00 AM as there are a couple of standing (and mandatory) morning meetings on Tuesdays with our senior management. Best, SSA **FBIHO** b6 b7C b7E Desk) Blackberry) @ic.fbi.gov ----Original Message [mailto From: paaas.org] Sent: Thursday, May 20, 2010 8:12 AM Subject: Re: Report you may find interesting, and request to meet to discuss academia/law enforcement interactions thanks for getting back to me. Next Tuesday morning might work - let me check with my two b6 colleagues and get back to you. b7C If getting into FBIHQ isn't too onerous, why don't we meet there. ----Original Message----From: @ic.fbi.gov> Daaas.org> Sent: 5/20/2010 8:03:21 AM Subject: FW: Report you may find interesting, and request to meet to discuss academia/law enforcement interactions Dr. Unfortunately, schedule is still very tight with travel demands. He did ask, however, that I meet with you next week as the program manager for the FBI's Academic Alliance, which includes responsibility for the National Security Higher Education Advisory Board (NSHEAB). I think this would be a good way to at least initially familiarize you and your colleagues with our ongoing efforts in this regard. We could meet here at FBIHQ or at your offices, as you prefer. Next week appears good calendar-wise, but for the morning of 24 May or the afternoon of 27 May.

Thanks,

From: Sent: Thursday, May 20, 2010 7:39 AM To: Subject: FW: Report you may find interesting, and request to meet to discuss academia/law enforcement interactions	ıt
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Can you meet with Thanks	b7C
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From:mailtopaaas.org] Sent: Wednesdav. May 19, 2010 10:28 AM To: Subject: RE: Report you may find interesting, and request to meet to discuss academia/law enforcement interactions	
I'd like to see if we can find some time to meet. The person in my Center who is most involved in activities that would be of interest to your office is going on vacation on Wednesday the 26th for a week, so it would be great if we could find time to meet before that; I'd like to bring her and one other key staffer as well. However, I'd just as soon not bump this another week in the event we can't meet before the 26th, so if we can't meet before the 26th let's just look for the next available time. I can always introduce her to you and people in your office at some later visit.	
>>> 5/3/2010 10:33 AM >>> Great. I'll check back with you then.	
>>>pic.fbi.gov> 5/3/2010 10:29 AM >>>	
Thanks for the information. Certainly look forward to meeting you and seeing what items in which we can mutually assist each other.	x
I will be on travel much of the next two weeks, but if your schedule allows, send me a note in about two weeks time and we can compare schedules.	
Best always,	