

International Engagement: Responsible Bioscience for a Safe and Secure Society

April 6, 2010

The AAAS Center for Science, Technology and Security Policy (CSTSP) was given a grant by the Department of State to host a series of international meetings and provide collaborative grants to build peer-to-peer relationships and trust among scientists to promote science, good research practices, and security.

The overall goal of the project is to promote international scientific collaboration in the biological sciences with leading scientific experts, influential administrators from educational and/or research institutes, and relevant regulators or policy-makers in the Middle East, Pakistan, and North Africa regions (referred to here as Broader Middle East and North Africa, 'BMENA'). The meetings will focus on infectious disease research and build on existing activities in the regions. The project will consist of a series of four meetings in the region and one in Washington, DC. It will also support small collaborative grants for regional participants and other appropriate international experts on topics to be identified in or subsequent to the first meeting.

The specific objectives of this project are:

- To identify successes and barriers towards international scientific collaboration, particularly those beyond export control issues, in the areas of infectious disease and biomedical strategies to combat disease;
- To determine the available pool of biological scientists at education and research institutions in the BMENA region for international collaboration;
- To understand how international collaboration can affect regional science, economies, human resources in the biomedical sciences, health, safety, and security;
- To facilitate dialogue on norms and values that could demonstrate that scientists share a similar sense of safe, secure, and ethical conduct, which in turn can facilitate collaboration; and
- To develop recommendations for international collaboration in the biological sciences.

Introductory Meeting: The first meeting for this project will present an overview of international collaboration in the biological sciences and will identify several aspects of successful and sustainable collaboration. The meeting will be designed to elucidate specific topics that can be addressed further with collaborative grants and in future meetings. Sessions will be designed and implemented to promote the greatest amount of interactive discussion as possible. Each session will start with two to three speakers who will present differing perspectives or experiences on the session's theme. Subsequent discussion will draw out important challenges and successes for that theme and engage the participants in addressing how these challenges can be alleviated. The resulting suggestions will vary, depending on the session theme, but we do expect that a few common understandings will emerge. These themes will be explored in greater detail in subsequent meetings. Session topics are in no particular order.

- ***International Collaborations in the Biological Sciences:*** This session will start the meeting by addressing key aspects of collaboration. This session is designed to promote a common understanding of international collaboration, a concept which is central to the meetings and subgrants.

- ***Policy/Training to implementation:*** This session will focus on discussing the potential barriers to translating training programs or policies on biosafety, biosecurity, and dual use education into practice and wide-spread implementation. Successful programs will be presented.
- ***Public-Private or Private-Private Partnership:*** This session will focus on discussing how to promote good practices and local capacity to identify causative agents of infectious disease outbreaks and to produce vaccines and therapeutics to control those outbreaks. Here again, successful programs will be presented.
- ***Regional-specific needs to support international collaboration:*** This session will focus on institutional, national, and other relevant policies or regulations specific to the region that hinder or promote international scientific collaboration among scientists within a region and with outside experts.
- ***Capacity of available biological sciences (human resources):*** Because international collaboration depends on having biological scientists conducting active research, this session will focus on discussing the current amount, diversity, expertise, and education (i.e., good practices, basic concepts, and emerging research and technology) of biologists working on harmful infectious diseases. This session will include discussions on the needs for building a robust and internationally interconnected (not isolated) pool of infectious disease biologists that could engage in international collaboration. It will address available opportunities for research and international collaboration to promote the individual scientists, institution, public health capacity, society, and economics.
- ***Common research practices in ethics, safety, and security:*** As we know from private industry and several requirements from US funding agencies, collaborations may be more easily achieved if all parties involved share a common sense of good practice in safety, security, and ethics. This session will explore good practice that could be harmonized among countries to help promote collaboration with scientists in the public and private sectors.

Optional Additional Sessions:

- ***Communicating Science:*** AAAS has a program that trains scientists to discuss their work and other complex scientific issues to a variety of lay audiences.
- ***Scientific and Grant Writing:*** AAAS has expertise to build scientists' competency in writing for scientific publications and grants requests.

We expect specific challenges and suggestions to be identified at the meeting about how to best encourage successful scientific collaboration with and among regional scientists. At least four other meetings will be held to follow up on major themes that emerge from this initial meeting, four of which will be held in the BMENA region and one of which will be held in Washington DC. These subsequent meetings will explore with greater clarity a challenge or suggestion that was identified in the first meeting or a previous meeting.

In addition, CSTSP will provide small collaborative grants to meeting participants and other appropriate international experts to address key problems or recommendations identified at the meeting, to build a network of talented biological scientists in the region, and to educate scientists on common themes of responsible conduct in research. The grants will preferentially be provided to applicants who can address specific long-term goals and mechanisms to sustain the efforts and collaborations beyond the CSTSP funded project.