

*The National Academies of*  
SCIENCES • ENGINEERING • MEDICINE

## POLICY AND GLOBAL AFFAIRS

# International Activities at The National Academies of Sciences, Engineering and Medicine

Dr. Dalal Najib

US-Morocco Workshop on Sensors and Wireless Networks for Smart Cities,

Rabat, 5-7 January, 2016

# National Academy of Sciences (NAS)

... an honorific society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare.

## 1863 NAS Act of Incorporation

...to "investigate, examine, experiment, and report upon any subject of science or art" whenever called upon to do so by any department of the government...



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INCORPORATION"] --- B["National Academy of Engineering  
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(2015)  
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Sciences  
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National Academy of  
Engineering  
(1964)  
Chartered under the Act

National Academy of  
Medicine  
(2015)  
Chartered under the Act

# Methods of Operation

- CONSENSUS STUDIES
  - Balance and Composition of Committees
  - Report Reviews
- CONVENING ACTIVITIES
- OPERATIONAL PROGRAMS
  - Fellowships and Associateships
  - Capacity Building
  - Data Banks
- Publications
  - PNAS

# Unique Strength

- Stature of academies' membership
- Ability to get the very best to serve
- *Pro bono* nature of committee service
- Quality assurance and control procedures
- Reputation for independence & objectivity

# Focus Areas in International Activities

- Responding to critical global challenges
- Building capacity in developing countries, including institutional capacity building in grants management and review process
- Pursuing direct relationships with scientists and organizations worldwide
- Advising the U.S. government

# Example of International Activities

- Arab-American Frontiers of Science, Engineering and Medicine Program
- Partnership for Enhanced Engagement in Research
- The U.S.- Egypt Science and Technology Joint Fund
- Pakistan-U.S. Science and Technology Cooperation Program



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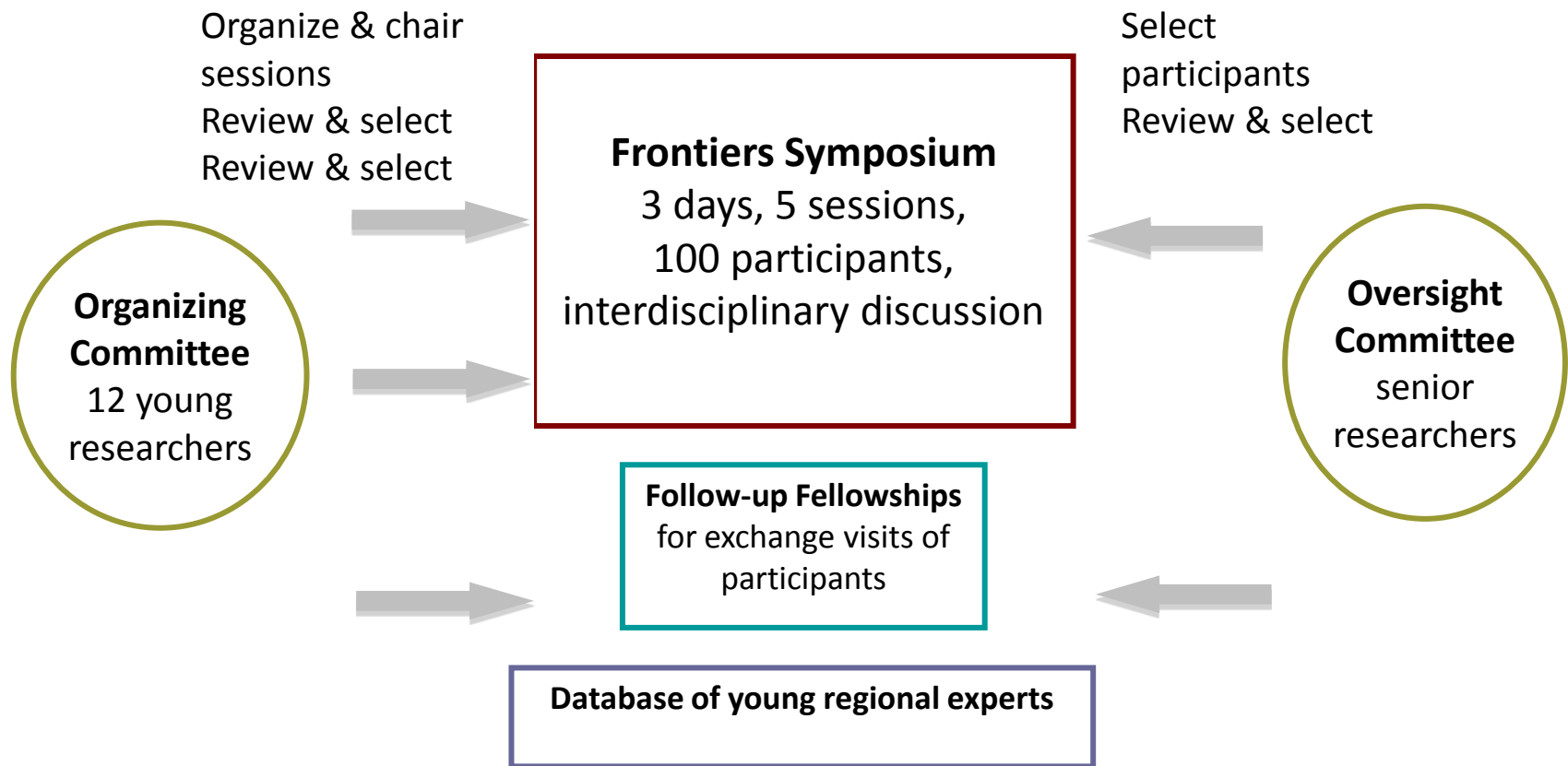


# Arab-American Frontiers of Science, Engineering, and Medicine





- Based on Kavli Frontiers of Science and Frontiers of Engineering
- About 100 Scientists, engineers, and medical professionals (30-45 years) from Arab league countries and the United States
- Scientific Sessions, Poster presentations, Professional development opportunities
- Participant-driven
- Platform to encourage collective and one-on-one discussions of exciting advances and opportunities in their fields



# Previous Symposia

- 1<sup>st</sup> symposium: hosted by the Kuwait Institute For Scientific Research (KISR)
- 2<sup>nd</sup> symposium: hosted by The Research Council (TRC), Oman



# 3<sup>rd</sup> Arab-American Frontiers Symposium: Sensing Technologies, Networks and Applications



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# 3<sup>rd</sup> Symposium: Scientific Sessions

- Sensor Processes, Circuits, and Networks
- Advanced Materials and Assemblies for Sensing
- Advances in Biomedical Sensing Technology
- Advances in Environment Sensing
- Sensors to Maintain Agroecosystem Health
- Integrated Approaches to Sensing Across Modalities



# Participants feedback

## Science

95.8%

learned about new  
developments in other  
research fields

87.3%

identified new  
approaches, tools and  
methods of benefit to  
their research

## Collaboration

89%

established contacts  
for future research  
collaboration

89%

are planning to pursue  
work outside their  
discipline

## Leadership

82%

thought the symposium  
was valuable to their  
professional development

72%

are willing to serve on  
the next organizing  
committee



# Frontiers Fellowships

- Travel grants to pairs of Frontiers participants who identified areas of common interest during the symposium
- Short visits of up to 4 weeks
- 40 Fellows from the U.S. and the Arab region





← Summer program for  
Omani students at  
Northeastern University

Technology  
commercialization  
workshop for Omani  
Researchers →





# Partnership for Enhanced Engagement in Research (PEER)

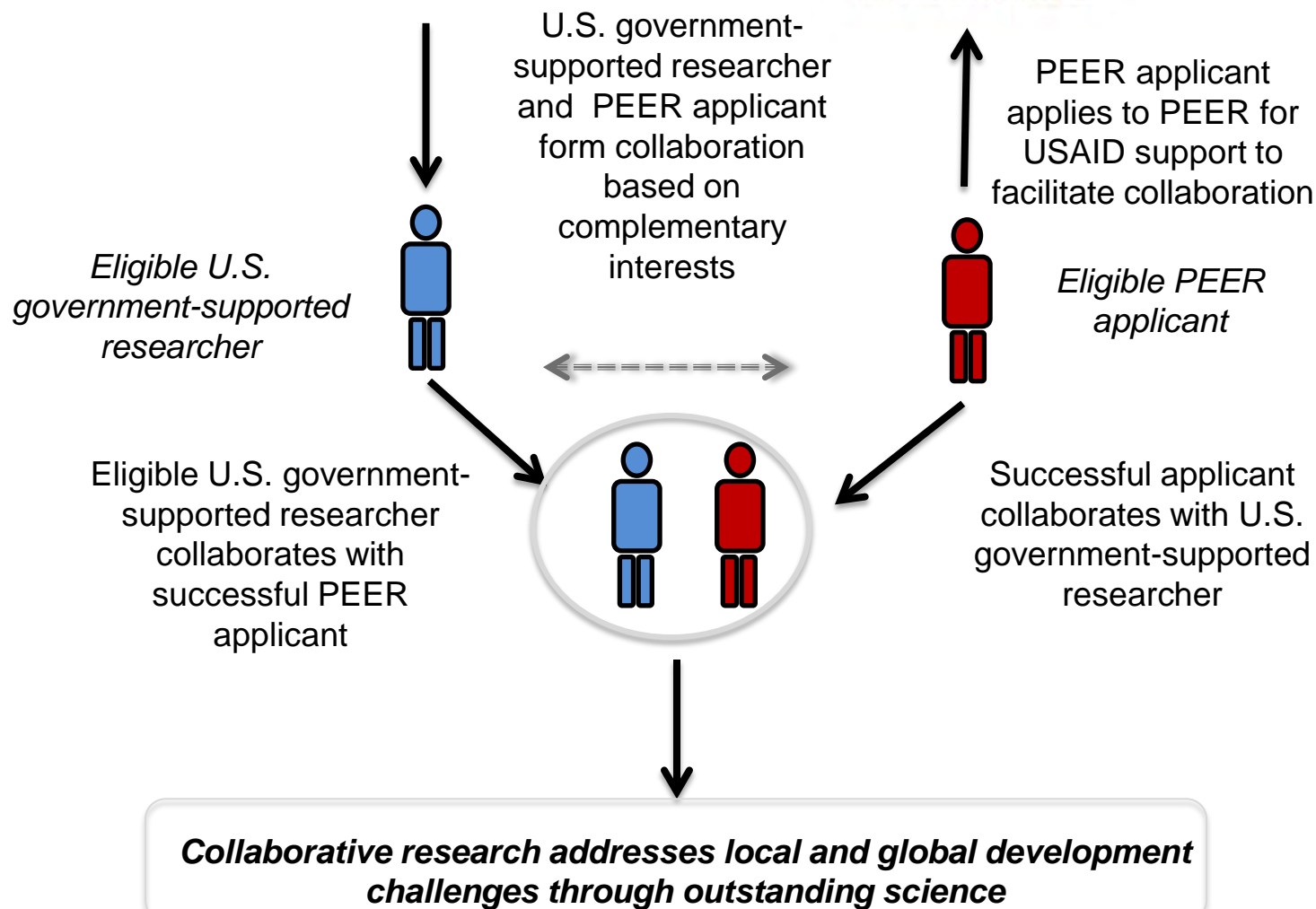


# Partnerships for Enhanced Engagement in Research (PEER)

- Launched in 2011, PEER is a joint program between USAID and the nine U.S. Government-supported agencies shown below.
- PEER provides funding for developing-country scientists to conduct development-oriented research in partnership with U.S. government-supported researchers.



# The PEER Model



## **PEER Award Amounts**

Single institution projects: U.S. \$40,000 - \$80,000 per year

Multiple institution projects: U.S. \$80,000 - \$100,000 per year

## **PEER Award Duration**

1-3 years

**PEER's current request for  
pre-proposals is now open!**

**Pre-proposal deadline: January 15, 2016**

# 63 Countries Whose Researchers are Eligible to Submit PEER Proposals

## ASIA

Afghanistan  
Bangladesh  
Cambodia  
India  
Indonesia  
Kazakhstan  
Kyrgyzstan  
Nepal  
Pakistan  
Philippines  
Sri Lanka  
Tajikistan  
Thailand  
Turkmenistan  
Uzbekistan  
Vietnam

## EUROPE AND EURASIA

Albania  
Armenia  
Azerbaijan  
Bosnia and Herzegovina  
Georgia  
Kosovo  
Macedonia  
Moldova  
Serbia

## SUB-SAHARAN AFRICA

Angola  
Benin  
Ethiopia  
Ghana  
Guinea  
Kenya  
Liberia  
Madagascar  
Malawi  
Mali  
Mozambique  
Namibia  
Nigeria  
Rwanda  
Senegal  
Sierra Leone  
South Africa  
Tanzania  
Uganda  
Zambia

## LATIN AMERICA AND CARIBBEAN

Brazil  
Colombia  
Dominican Republic  
El Salvador  
Guatemala  
Guyana  
Haiti  
Honduras  
Jamaica  
Mexico  
Nicaragua  
Paraguay  
Peru

## MIDDLE EAST

Egypt  
Jordan  
Lebanon  
Morocco  
Tunisia

# General Eligibility

## ***PEER Applicant Must***

- Be a national (citizen or permanent resident) of a PEER-eligible country working in the country from which he or she is applying;
- Be affiliated with and permanently based at an academic institution, non-profit organization, government-managed institute, or relevant government ministry in a PEER-eligible country; and
- Meet country-specific eligibility criteria for focus area to which they are applying

## ***U.S. Government-Supported Partner Must***

- Be the PI or co-PI of an active research award from or an eligible research staff member at one of the nine U.S. government-supported agencies participating in the PEER program
- U.S. government-supported partner awards must be active for at least 12 months after your PEER project start date (this means they should expire no earlier than August 1, 2017)
- Meet agency-specific eligibility criteria (confirm with agency)
- Have expertise that aligns with and contributes to the PEER proposal
- *U.S. government-funded partners are not eligible to receive PEER funding but may seek supplemental funding from their agencies*



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PARTNERSHIPS FOR ENHANCED  
ENGAGEMENT IN RESEARCH (PEER)  
DEVELOPMENT, SECURITY, AND COOPERATION  
Policy and Global Affairs

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## U.S. GLOBAL DEVELOPMENT LAB

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The United States Agency for International Development (USAID) has joined with several U.S. Government (USG) supported agencies to support Partnerships for Enhanced Engagement in Research (PEER). Administered by the U.S. National Academy of Sciences (NAS), PEER is a competitive grants program that invites scientists in developing countries, partnered with USG-supported collaborators, to apply for funds to support research and capacity-building activities on topics with strong potential development impacts. This innovative program is designed to leverage the investments other USG-supported agencies have made in scientific research and training while supporting the initiatives of developing country scientists. [Learn more.](#)

### Latest News

#### [PEER Cycle 5 Call for Pre-Proposals](#)

As of October 6, 2015, PEER is accepting pre-proposals for the next annual cycle of the program. This cycle sees the return of many familiar focus areas, including SERVIR/Environmental Management and Climate Change Resilience and Central and South Asia Transboundary Water Research, but also features new additions including Health Implementation Science and multiple country-specific focus areas, as well as partnerships with private companies. The deadline for submissions is January 15, 2016, which gives applicants just over three months to find a USG-supported partner and finalize their research pre-proposal. For more information about eligibility requirements and the timeline for this cycle, please explore our page via the links in the banner above or click [here](#) to download a full PDF copy of our PEER 2015/2016 solicitation.

#### [PEER Cycle 4 Awards Announced](#)

On August 26, 2015, the U.S. Agency for International Development's (USAID) U.S. Global Development Lab announced \$10 million for 45 new PEER research projects that will address evidence gaps and advance technical capacity in critical areas of development. This latest cohort of PEER projects, representing the fourth cycle of the program, were selected from more than 500 proposals and represent close to \$50 million dollars of leveraged funds through collaborations with U.S.-funded counterparts. Spanning 23 USAID partner countries, these new awards will allow scientists and engineers to collaborate on a variety of crucial research areas, such as wildlife protection, biodiversity conservation, water resource sustainability, satellite monitoring of natural resources, fisheries management, food security, disaster mitigation, and others. Further details are available from USAID's [press release](#) and the [Funded Projects](#) section of this website.



#### PROGRAM DETAILS

##### Program Status:

Cycle 5 has been announced and pre-proposals can now be submitted!

For complete details regarding eligibility and focus areas, please review the program information provided on the links in the banner above or click [here](#) to download a PDF copy of our PEER 2015/2016 solicitation.

The deadline for submission of pre-proposals is January 15, 2016, so be sure to submit your application by that date.



#### ARE YOU ELIGIBLE?

Want to determine if you are eligible for the program? Use the links below to find out.

- [Review general eligibility requirements](#)
- [Review focus areas and country eligibility](#)
- [Find a USG-supported partner](#)
- [Review the FAQs](#)



#### READY TO APPLY?

Pre-proposals are currently being accepted! Please click the button below to start your application. The button also be used by our current grant recipients to access the online system for preparing and submitting their proposals.

Apply Now



# Two Phases of Applying to PEER

*The PEER application process has two phases:*

**Phase 1:** An initial two-page pre-proposal is required for all applicants.

The deadline for submission of pre-proposals is **January 15, 2016**.

**Phase 2.** If invited to submit a full proposal, applicants will be notified by NAS on **February 29, 2016**.

The deadline for submission of full proposals is **April 15, 2016**.

Awards will be made at the **end of July 2016**.

**Full proposal preparation instructions will be posted on the PEER website, to help you understand the level of work required if your pre-proposal is selected to advance to Phase 2 of the review process.**



# PEER Focus Areas for 2015/2016

## Global Calls

Open to researchers from all 63 PEER-eligible countries:

- Open Call for Proposals / Multiple Research Fields
- Open Call for Proposals / Health Implementation Science ★

## Regional and Priority Focus Area Calls

Open to researchers from specific USAID regions or priority countries:

- Central and South Central Asia / Transboundary Water Research
- SERVIR Priority Countries / Environmental Management and Climate Change Resilience
- Middle East Region / Infectious Disease in the Middle East ★
- Planet NI Priority Countries / Renewable Energy and Micro-grids ★
- RDMA Priority Countries / Rapid Assessment of Fish Stocks in the South China Sea ★
- RDMA Priority Countries / Rapid Assessment of Pelagic Fish Stocks in the Sulu-Sulawesi Seas ★

New focus areas for this year's cycle are highlighted with stars.

# How Can I Find a Partner?

Some of the nine eligible agencies have links to online search sites, while others have given us lists to post on our PEER site, so please review our Find a USG-Supported Partner page carefully. Check the agency with interests closest to your field:

- **NSF:** a broad range of science and engineering disciplines.
- **USDA (ARS, NIFA, and Forest Service):** research on agricultural production, food safety, agricultural economics, environment and natural resources
- **USGS:** geology, water, or soil science
- **NASA:** Earth observations for research in water resources, disasters, health and air quality, ecology, land use/cover change or SERVIR-related research
- **NIH:** health
- **NOAA:** climate, oceanography, fisheries
- **Smithsonian:** biodiversity and environmental studies

# Tips for a Successful Proposal

- Is your research question well articulated?
- Are the objectives clear?
- Is your project feasible?
- Have you conducted a literature review of previous work?
- Is your expertise appropriate to carry out the work? What about your U.S. government-supported partner's expertise?
- Is the timeline appropriate?
- Are there clear development impacts?
- Do they fit USAID priorities in your country?
- Does the project have broader impacts?
- Is there a training component?  
How many students? How many female participants?
- Are local communities engaged?
- Is there an outreach/dissemination component?

# The PEER Review Process

1. Pre-proposals are reviewed by USAID Missions and Operating Units to assess the relevance and desirability of the proposed research topic. Successful pre-proposal applicants are invited to submit a full proposal.
2. Eligible PEER full proposals are reviewed by panels of technical experts with development experience or knowledge, USAID Missions, and Operating Units.
3. For those PEER proposals being considered for funding, U.S. government agencies will verify the good standing of the proposed U.S. government-supported research partners.
4. With above information and taking the full PEER portfolio and funding availability into account, final PEER award decisions will be made by USAID, with grants disbursed by NAS.

# Tools and resources to improve deaf educational access to science, technology, engineering, and mathematics

PI: Abdelhadi Soudi, Ecole Nationale de l'Industrie Minérale

U.S. Partner: Corinne Vinopol, Institute for Disabilities Research and Training, Inc



For more information:

[www.nas.edu/aafrontiers](http://www.nas.edu/aafrontiers)

[www.nas.edu/peer](http://www.nas.edu/peer)

or e-mail me at [dnajib@nas.edu](mailto:dnajib@nas.edu)