Science and Security - Latest Developments in Managing Improper Foreign Influence

**Panelists:** Jean Feldman, NSF; Dr. Rebecca Keiser, NSF; Michelle Bulls, NIH

**Additional Presenters:** Lori Schultz (Arizona); Amanda Humphrey (Northeastern)

**Moderators:** Jim Luther, Duke University; Pamela Webb, University of Minnesota

**September 22, 2021 (1:00 – 2:30 EST)**
Description – This session continues the strong partnership between FDP federal and institutional partners working to appropriately manage improper foreign influence.

- **Our federal partners from NSF and NIH** will update us on the latest developments in the work to harmonize definitions and requirements, and fulfill the expectations outlined in the 2021 National Defense Authorization Act (NDAA) and the National Security Presidential Memorandum 33 (NSPM-33).

- **FDP's Foreign Influence Working** group will provide questions on two concepts being explored: that of a Key Investigator Clearinghouse, and that of Activity Risk Assessment Matrix (ARAM) & Transparency Tool.

- Time will be reserved for questions and answers.
Federal Panel

• Panelists
  • NSF
    • Dr. Rebecca Keiser, Chief of Research Security Strategy & Policy, NSF
    • Jean Feldman, Head, Policy Office, Division of Institution and Award Support, NSF
  • NIH
    • Michelle Bulls, Director of the NIH Office of Policy for Extramural Research Administration (OPERA)

• Moderators
  • Pamela Webb (University of Minnesota)
  • Jim Luther (Duke University)
“..The Office of Science and Technology Policy (OSTP) is working on how to implement NSPM-33 effectively, rigorously, and uniformly across the federal government in a way that protects the nation’s interests in both security and openness. Over the next 90 days, OSTP will develop clear and effective implementation guidance for NSPM-33..

1. Disclosure Policy
2. Oversight and Enforcement
3. Research Security Programs
• Congress continues to demonstrate traction on legislation addressing improper foreign influence …

• USICA (United States Innovation and Competition Act)
  • Potential for Dept of Ed foreign gift and contract reporting threshold to be lowered from $250K to $50K
  • Potential to require any institution with more than $5M in research expenditures to maintain a database to track foreign gifts and contracts of any amount.
  • Potential to require review by the Committee on Foreign Investment in the US (CFIUS) to review certain foreign gifts or contracts over $1M received by IHE (~700)
  • Potential for three separate security agencies to establish a counterintelligence screening and certification process for any person receiving funding from NSF, NIST, DOE
  • Potential to ban “nationals of a country of risk” from participating in any DOE program subject to Directive 142.3B.
Transition to Panelist Slides
Dr. Rebecca Keiser (NSF)
Jean Feldman (NSF)
Michelle Bulls (NIH)
Promoting and Protecting the U.S. Science and Engineering Enterprise

Dr. Rebecca L. Keiser
National Science Foundation
Chief of Research Security Strategy and Policy
Federal Demonstration Partnership
September 2021
Why Does Research Security Matter?

Basic research underpins America’s ability to sustain its:

- Position as an innovation leader
- Economic strength
- National security

We need to maintain our robust research ecosystem while also recognizing the risks inherent in a changing geopolitical situation.

International collaboration is essential to pursuing the frontiers of science.

Diverse domestic and international talent is a great asset to our research and engineering enterprise.

The USA Science and Engineering Festival aims to inspire new generations of researchers. Credit: USA Science and Engineering Festival
Research Security Goals

**RESEARCH ENVIRONMENT**
To maintain the open and collaborative research environment.

**COMMUNITY**
To foster the vibrant science and engineering community which relies on collaborations both globally and domestically.

**INTEGRITY**
To promote core norms, principles, and values including openness, transparency, and reciprocal collaboration.
Risks to the Scientific Research Enterprise

Conflicts of Interest or Commitment
- Nondisclosure to employer or to funding agency
- Unmanaged conflicts create risks

Breaches to Research Integrity
- Violations of responsible and ethical conduct of research
- Actions that undermine peer review and funding decision processes

Threats to National Security
- Actions that undermine research and related resources threaten U.S. leadership in emerging science and technology
- Actions that divert research in critical and emerging technology areas to advance potential adversaries’ military and intelligence capabilities

Threats to Economic Security
- Actions that coopt research and misuse related resources weaken the innovation base and threaten economic competitiveness
Foreign Government Talent Recruitment Programs

Definition: A foreign government sponsored talent recruitment program is an effort organized, managed, or funded by a foreign government to recruit science and technology professionals or students (regardless of citizenship or national origin). Some recruitment programs threaten the transparency, openness, and integrity of scientific research by directing or encouraging inappropriate behaviors of recruited employees of U.S. academic research organizations.

Contracts can stipulate quotas for publications, outside funding, patents, and recruitment of other foreign researchers.

Under certain programs, U.S. university professor may be required to:

- List foreign university affiliation before U.S. university on publications
- Obtain large amounts of research funding for the foreign university
- File a number of patents registered to the foreign university
Mitigating Risks

Acquiring and managing a federal research grant comes with great responsibility. The protection of academic research relies on individuals to uphold core principles and values of the grant-making process.

**Accountability and honesty**
- acknowledge errors and correct behaviors that can call the research into question.

**Merit-based competition**
- ensure a level playing field where the best ideas and innovations can advance.

**Impartiality and objectivity**
- protect against improper influence and distortion of scientific knowledge.
Transparency and full disclosure are essential to properly identify and assess risks.

Disclosed information is used to identify potential conflicts of interest and commitment in some instances and potential issues related to capacity, overlap, and duplication in others.

Disclosed information is used to assess the qualifications of the individual or team to perform the proposed project.

Enables a system that is fair to those who apply for grants and a system where grant decisions are made based on complete and accurate information.
What Does International Collaboration Look Like?

International scientific research collaborations with transparent and reciprocal exchanges for mutual benefit

Leveraging of complementary skills, facilities, sites, and resources

Exchange of personnel when clear intellectual contributions are identified, and organizational affiliations and sources of funding are transparent

International collaboration benefits the scientific enterprise

*Improper foreign government interference ≠ International collaboration*
National Security Presidential Memorandum 33 (NSPM-33)

Addresses why research security and integrity are important and outlines their key elements

Establishes federal department and agency roles and responsibilities related to research security

Contains requirements such as:
• Disclosure of key information to federal agencies
• Establishment of a research security program for institutions receiving >$50M in federal funding
Recommended Practices to Strengthen the Security & Integrity of America’s Science and Technology Research Enterprise

Complementary document to NSPM-33

Offers recommendations that research organizations can take to protect the security and integrity of America’s research enterprise.

Emphasizes that research security helps ensure that open international collaboration and foreign contributions can continue to be critical to the success of the U.S. research enterprise.

Encourages research organizations to demonstrate organizational leadership and oversight, and to manage potential risks associated with collaborations and data.
August 10, 2021

“Over the next 90 days, OSTP will develop clear and effective implementation guidance for NSPM-33, working in close partnership with the National Security Council staff, fellow Cabinet agencies, and other federal agencies through the National Science and Technology Council.”
NSPM Implementation Guidance

• **Disclosure Policy** — ensuring that federally-funded researchers provide their funding agencies and research organizations with appropriate information concerning external involvements that may bear on potential conflicts of interest and commitment;

• **Oversight and Enforcement** — ensuring that federal agencies have clear and appropriate policies concerning consequences for violations of disclosure requirements and interagency sharing of information about such violations; and,

• **Research Security Programs** — ensuring that research organizations that receive substantial federal R&D funding (greater than $50 million annually) maintain appropriate research security programs.
Foreign Influence Working Group Update (FIWG)

Key Investigator Clearinghouse (KIC)

FDP Activity Risk Assessment Matrix (ARAM) & Transparency Tool
• “..For example, one approach might be to enable researchers to provide disclosures and declarations through a simple, modular, uniform system that functions like an electronic CV, containing information about a scientist’s degrees, positions, affiliations, and funding sources, updated on a regular basis, that can be used for any federal grant”
The Challenge:

“Investigators and their institutions are challenged to easily / efficiently / timely collect all necessary information for reporting (Other Support/ C&P, Biosketch, RPPR, etc.) from both agency/sponsor and institutional sources. KIC will be designed to provide access to this information along the lines of the other successful models that FDP has developed (FCOI and Expanded Clearinghouse).”

The Response:

Development of a national on-line repository that would serve as a single point of entry for investigators relative to appointments, current and pending/other support, and basic conflict of interest/commitment information, with the data able to be harvested by agencies and institutions
KIC Working Group

- Lori Schultz, University of Arizona (Chair)
- Alex Albinak, FDP Admin Chair
- Michele Masucci, FDP Faculty Chair
- Lynette Arias, University of Washington
- Jackie Bendall, COGR (allied member)
- Zach Chandler, Stanford University
- Robin Cyr, Northeastern University
- Stephanie Endy, Brown University
- Stephanie Gray, University of Florida
- Jim Luther, Duke University
- Peter Schiffer, Yale University & AAU Senior Fellow (allied member)
- Pamela Webb, University of Minnesota, FIWG Co-Chair
- Alice Young, Texas Tech University
Partners

- Federal Demonstration Partnership
  - Foreign Influence Working Group (FIWG)

- Council on Governmental Relations (COGR)

- Association of Public & Land-Grant Universities (APLU)

- American Association of Universities (AAU)
  - President Snyder has identified this is a high priority based on her conversation with Dr. Lander

- Representatives from NIH and NSF have been invited to participate on the Workgroup
The Scene

• FDP FIWG KIC members are meeting with AAU, APLU, COGR staff to discuss the timeline and working on a solution together
  • Weekly KIC meetings
  • Bi-weekly Big group meetings

• AAU hopes to offer specialized support (IT and Legal)

• Conversation evolved to possible FDP demo with scalability options
  • Must be able to work for all size institutions
  • Requires APIs (bi-directional?)
  • PI versus institutional validation being explored
Progress

• Define and document high-level objective for a system
• Map required data elements to existing sources
• Identify barriers, challenges, and potential solutions
• Identify areas where definitional clarity and/or harmonization would be of value

• Next steps:
  • KIC Group:
    • Meet with ORCID representatives
    • Identify other possible sources of information, PID, map of data elements
  • September 22\textsuperscript{nd} – FDP Meeting update
  • October 31, 2021 - White Paper
  • January 2022: Deliverable TBD...
    • Per discussion with AAU President Snyder
KIC – Heavy Lifting is Part of the Process

DRAFT – Spreadsheet of Data Elements
FDP Activity Risk Assessment Matrix (ARAM) & Transparency Tool

Objective: Risk-based tools to support effective, compliant and transparent reporting to institutions and federal partners
Intended Audience: Faculty

Organization: structured by activity

Goal: help faculty understand what activities should be discussed with institution

Dovetails with Disclosure Tool that Jim will show

Differentiation: Disclosure Tool provides guidance that will support the compliance/institutional perspective
<table>
<thead>
<tr>
<th>Activity Type</th>
<th>Specific activity / level of engagement</th>
<th>Where to report</th>
</tr>
</thead>
</table>
|                     | • Participating in an internally funded (i.e., funded by home institution) clinical trial, but the drug/other resources are provided by an industry sponsor  
• Serving as an overall Protocol PI for a sponsored trial (example: Dr. X is Protocol PI of ACTG Study 5303)                                                                                                                                      |                    |
| Publications        | • Purely advisory, not included as a co-author  
• Authorship on projects affiliated with and arising from research conducted at your home institution                                                                                                                                                                                                                  | NSF COA TABLE      |
|                     | • Co-authorship on research conducted outside of your institution  
• Listing other affiliation with another institution that has not previously been disclosed to relevant federal funding agencies  
• Addition of potential foreign components, as evidenced by co-authorship of investigators not previously listed as collaborators on the applicable project (applies only to research, as opposed to meta-analysis or literature reviews, which should not require additional disclosure) |                    |
| Editorial Service   | • Peer-reviewing *ad hoc* for a peer-reviewed journal  
• Membership on editorial advisory boards                                                                                                                                                                                                                                                                     | no disclosure      |
|                     | • Serving as editor or associate editor (paid or unpaid) for a peer-reviewed journal                                                                                                                                                                                                                                             | required biosketch |
| Peer Review         | • Peer-reviewing *ad hoc* for a peer-reviewed journal  
• *Ad hoc* reviews for another institution’s P&T process                                                                                                                                                                                                                                                                  | no disclosure      |
|                     |                                                                                                                                                                                                                                                                                                                                                                            | required           |
Transparency Tool - Working Group Members

- Lisa Atkin, TAMU
- Felicia Beanum, Cedars Sinai
- Amanda Humphrey, Northeastern University (Chair)
- Jaclyn Lucas, City of Hope
- Megan Moore, Harvard
- Martha Ogilvie, University of Oklahoma Health Sciences Center
- Brian Ridenour, Texas A&M University
- Mary Schmiedel, Georgetown
- Stephanie Scott, Columbia
- Lindsey Spangler, Duke
- Alice Young, Texas Tech University
Objective: Develop a risk-based tool/decision matrix to aid in determining if a specific outside activity is reportable on Other Support and/or Biosketch. The work group will define the parameters of the ARAM, its likely benefits and its major challenges, and make a recommendation as to whether the idea should be further pursued.
FDP ARAM (Activity Risk Assessment Matrix)

➢ **Intended Audience**: Research Admins(?)

➢ **Organization**: structured by “characteristic”

➢ **Goal**: help institution/faculty understand what activities should be reported to sponsor

➢ **Dovetails with “Transparency Tool”**
### Activity Determination Notes

<table>
<thead>
<tr>
<th>Part A -- Generally Reportable</th>
<th>Part B -- Requires Evaluation</th>
<th>Part C -- Generally Not Reportable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the activity meet the definition of research (e.g., systematic study directed toward fuller scientific knowledge or understanding of the subject studied...)?</td>
<td>Research is defined in the Common Rule as: systematic investigation—including research development, testing and evaluation—to develop or contribute to generalizable knowledge. “Research” is defined as a systematic study directed toward fuller scientific knowledge or understanding of the subject studied...</td>
<td>Requires evaluation/Likely reportable / could create commitment conflict</td>
</tr>
<tr>
<td>Could this activity (actual or appearance) create scientific overlap with current research endeavors conducted through university?</td>
<td>Scientific overlap occurs when (1) substantially the same research is proposed in more than one application or is submitted to different funding sources for review and funding consideration, or (2) a proposed activity is specified in more than one application or is submitted to two or more funding sources.</td>
<td>Requires evaluation/Likely reportable / could create commitment conflict</td>
</tr>
<tr>
<td>Could this activity (actual or appearance) create commitment overlap?</td>
<td>“Commitment overlap occurs when an individual’s time exceeds 100 percent (i.e., 12 person months), whether support is requested in the application.” This could include service, and/or research activity that creates capacity concerns.</td>
<td>Requires evaluation/Likely reportable / could create commitment conflict</td>
</tr>
<tr>
<td>Could this activity (actual or appearance) create financial overlap?</td>
<td>Issues potentially impacting the integrity of research issues related to national security, sharing of research aims from other proposals, collaboration with individual that has ties to international complex, etc. (see Lauer list and MITRE report).</td>
<td>Requires evaluation/Likely reportable / could create commitment conflict</td>
</tr>
<tr>
<td>Is the activity related to national security?</td>
<td></td>
<td>Requires evaluation/Likely reportable / could create commitment conflict</td>
</tr>
<tr>
<td>Are there Animal and/or Human Subjects?</td>
<td></td>
<td>Requires evaluation/Likely reportable / could create commitment conflict</td>
</tr>
<tr>
<td>Does the activity being reviewed pose a potential research security risk considering federal standards and regulations?</td>
<td>Requires evaluation/Indicator</td>
<td>Excludes peer review services and incidental authorship provision of data, etc.</td>
</tr>
<tr>
<td>Any foreign resources that meet the definition of a foreign component have received appropriate prior approval.</td>
<td>Requires evaluation/Indicator</td>
<td>Excludes peer review services and incidental authorship provision of data, etc.</td>
</tr>
<tr>
<td>Talent Program relationship or Foreign Entity relationship</td>
<td>Requires evaluation/Indicator</td>
<td>Excludes peer review services and incidental authorship provision of data, etc.</td>
</tr>
<tr>
<td>Is the activity happening outside of the faculty member’s appointment? (Note: consulting that occurs within institutional guidelines is assumed to be part of the appointment and is generally not reportable).</td>
<td>Requires evaluation/Indicator</td>
<td>Excludes peer review services and incidental authorship provision of data, etc.</td>
</tr>
</tbody>
</table>

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- **ARAM**
- Generally Reportable
- Requires Evaluation
- Generally Not Reportable

### ARAM

- Supports documentation of decision

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(see Lauer list and MITRE Report)
ARAM - Highlights

• **Fundamental Question:** Broadly speaking, **could the activity impact a funding decision because of real/apparent impact on integrity of research and/or overlap?** If "yes, the activity is Reportable.

• **Supports the Critical Role of Documentation**

• **Sample Questions**
  • Does the activity meet the definition of research (e.g. systematic study directed toward fuller scientific knowledge or understanding of the subject studied...“
  • Will, or could this lead to a publication and authorship?
  • Could the activity impact, or appear to impact, any current or future intellectual property?
  • Are there cash payments or foreign bank accounts?
  • Does the activity require an employment relationship?
  • Could the activity impact the integrity of individual or institution or create reputational risk?
Doug Backman, University of Central Florida
Robin Cyr, Northeastern University
Stephanie Gray, University of Florida
Amanda Humphrey, Northeastern University
Jaclyn Lucas, City of Hope
Jim Luther, Duke University (Current chair)
Laura McCabe, Michigan State
Kim Moreland, University of Wisconsin
Martha Ogilvie, University of Oklahoma Health Sciences Center
Twila Reighley, Michigan State University
Brian Ridenour, Texas A&M University
Pamela Webb, University of Minnesota
Shandra White, Northwestern University
Alice Young, Texas Tech University
Discussion and Q&A
Thanks!

• Logistics & Coordination
  • David Wright (FDP)

• Panelists
  • Michelle Bulls
  • Jean Feldman
  • Dr. Rebecca Keiser

• Presenters
  • Lori Schultz (Arizona)
  • Amanda Humphrey (Northeastern)