

Science and Security - Latest Developments in Managing Improper Foreign Influence

<u>Panelists:</u> Jean Feldman, NSF; Dr. Rebecca Keiser, NSF; Michelle Bulls, NIH

<u>Additional Presenters:</u> Lori Schultz (Arizona); Amanda Humphrey (Northeastern)

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

September 22, 2021 (1:00 – 2:30 EST)



Management of Improper Influence - Federal Panel

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.



- 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)



August 10th Lander Blog Post

https://www.whitehouse.gov/ostp/news-updates/2021/08/10/clear-rules-for-research-security-and-researcher-responsibility/

- " ..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) Proposed
 - 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

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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

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

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*.

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.

Importance of Disclosure

EVALUATING RISKS

Transparency and full disclosure are essential to properly identify and assess risks.

AVOIDING CONFLICTS

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.

ASSESSING QUALIFICATIONS

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)

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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.

OSTP Director Blog

Clear Rules for Research Security and Researcher Responsibility

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 Risk-based Assessment & Reporting Tools



 "..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



- 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



- 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



- 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



- 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 22nd 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

Data Element	Section	Format	Multiple Entries	NSF Name	NIH Name Sc
Last Name	Person	Text	N		
First Name	Person	Text	N		
Alternate Last Name	Person	Text	N		
Alternate First Name	Person	Text	N		
Persistent Identifier	Person	****	N		0
Account ID	Person	Text	N	n/a	eRA commons ID
Position Title	Employment	Text	Y	Appointments	Positions, Scientific Appointments & Honors
Employer Name	Employment	Text	Y	Appointments	Positions, Scientific Appointments & Honors
Employer City	Employment	Text	Y	Appointments	Positions, Scientific Appointments & Honors
Employer State	Employment	Lookup	Y	Appointments	Positions, Scientific Appointments & Honors
Employer Country	Employment	Lookup	Y	Appointments	Positions, Scientific Appointments & Honors
Start Date	Employment	MM/YYYY	Ý.	Appointments	Positions, Scientific Appointments & Honors
End Date	Employment	MM/YYYY (or leave blank for current position(s)	Ŷ	Appointments	Positions, Scientific Appointments & Honors
Institution Name	Education	Text	٧	Professional Preparation	Education/Training
Institution City	Education	Text	٧	Professional Preparation	Education/Training
Institution State	Education	Lookup	Y	Professional Preparation	Education/Training
Institution Country	Education	Lookup	Y	Professional Preparation	Education/Training
Earned Degree Type	Education	Lookup	Ŷ	Professional Preparation	Education/Training
Start Date	Education	MM/YYYY	٧	Professional Preparation	Education/Training
Degree Date (end date)	Education	MM/YYYY (or leave blank for in progress study)	Y	Professional Preparation	Education/Training
Field of Study	Education	Text	Y	Professional Preparation	Education/Training
Appointment Title	Appointments	Text	γ	Appointments	Positions, Scientific Appointments & Honors
Appointing Organization	Appointments	Text	Y	Appointments	Positions, Scientific Appointments & Honors
Appointing Organization State	Appointments	Lookup	Y	Appointments	Positions, Scientific Appointments & Honors
Appointing Organization Count	t Appointments	Lookup	Y	Appointments	Positions, Scientific Appointments & Honors
Appointment Start Dt	Appointments	MM/YYYY	Y	Appointments	Positions, Scientific Appointments & Honors
Appointment End Dt	Appointments	MMI/YYYY (or leave blank for current position(s)	Y	Appointments	Positions, Scientific Appointments & Honors
Remuneration or value	Appointments	Sec. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10	Y	Appointments	Positions, Scientific Appointments & Hon W
Hours per month expended	Appointments	44	Ŷ	Appointments	Positions, Scientific Appointments & Hon W

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 <u>institutions and federal partners</u>



- 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
 - <u>Differentiation</u>: Disclosure Tool provides guidance that will support the compliance/institutional perspective

Transparency Tool

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Activity Type	Specific activity / level of engagement	Where to report
	 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 <i>ad hoc</i> for a peer-reviewed journal Membership on editorial advisory boards 	no disclosure required
	 Serving as editor or associate editor (paid or unpaid) for a peer-reviewed journal 	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



FDP ARAM (Activity Risk Assessment Matrix) Working Group

 Objective: Develop a <u>risk-based tool/decision</u> <u>matrix to aid in determining if a specific outside</u> <u>activity is reportable on Other Support and/or</u> <u>Biosketch.</u> 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.



- Intended Audience: Research Admins(?)
- Organization: structured by "characteristic"
- Goal: help institution/faculty understand what activities should be reported to sponsor
- Dovetails with "Transparency Tool"



<u>ARAM</u>

- Generally Reportable
- Requires Evaluation
- Generally Not Reportable



Part A	Generally Reportable		
1	Does the activity meet the definition of research (e.g. systematic study directed toward fuller scientific knowledge or understanding of the subject studied"	Reportable	Research is defined in the Common Rule as: systema including research development, testing and. evalua develop or contribute to generalizable knowledge. I "Research is defined as a systematic study directed t scientific knowledge or understanding of the subject
2	Could this activity (actual or appearance) create scientific overlap with current research endeavors conducted thru university?	Reportable	Scientific overlap occurs when (1) substantially the s proposed in more than one application or is submitte different funding sources for review and funding cor specific research objective and the research design f objective are the same or closely related in two or m awards, regardless of the funding source.
3	Could this activity (actual or appearance) create commitment overlap?	Reportable	"Commitment overlap occurs when an individual's ti exceeds 100 percent (i.e., 12 person months), wheth support is requested in the application.". This could service, and/or research activity that creates capacity
4	Could this activity (actual or appearance) create financial overlap?	Reportable	
5	Could the activity impact, or appear to impact, the integrity of your research due to improper in	Reportable	Issues potentially impacting the "integrity of researc issues related to national security, sharing of researc proposals, collaboration with individual that has ties industrial complex, etc. (see Lauer list and MITRE rej
6	Is the activity related to national security?	Reportable	
7	Are there Animal and/or human subjects?	Reportable	
8	Does the activity being reviewed pose a potential research security risk considering federal standards and regulations?	Reportable / Review with Counsel	
9	Any foreign resources that meet the definition of a foreign component have received appropriate prior approval.	Reportable	
10	Talent Program relationship or Foreign Entity relationship	Reportable	Prior approval required; likely require collection & tr foreign contracts
11	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). See "Commitment Overlap: above. ?? FCOI and COI	Reportable	One example of a reportable circumstance would be the "1 day/week" per institutional policy and creates commitment scenario.
<u>Part B</u>	Requires Evaluation		Excludes peer review services and incidental authors
20	Will, or could this lead to a publication and authorship? Are there in-kind resources (office/lab space, chemicals, etc.) provided? (could indicate	Requires evaluation/Indicator	provision of data, etc.
21	capacity concerns)	Requires evaluation/Indicator	NIH requires NSF may not
22	Could the activity impact, or appear to impact, any current or future intellectual property	Requires evaluation/Indicator	
23	Does agreement have to be confidential or NDA? Is there compensation associated with the activity? (could indicate time commitment &	Review with Counsel	Look at Keiser's characteristics
25	capacity concerns)	Requires evaluation/Indicator	
25	Does the Activity require an employment relationship?	Review with Counsel	https://grants.nih.gov/faqs#/other-support-and-fore
27	Could the activity impact the integrity of individual or the institution or create reputational		components.ntm?anchor=aiphaneader4226
- 20	risk?	Review with Counsel	Could be a violation of institutional policy/prference
28	Academic appointment related to scholarly teaching activities	Requires evaluation/Indicator	
30	Is there a titled academic, professional, or institutional appointments	Requires evaluation/Likely reportable / could create commitment conflict	Highly dependent on nature of the appointment, etc titled academic, professional, or institutional appoin not remuneration is received, and whether full-time voluntary (including adjunct, visiting, or honorary).
	(see Lauer list and MITRE Report)		
<u>Part C</u>	Generally Not Reportable		
40	Informal collaboration	Not reportable	Need more conversation with Agencies
41	Informal sharing of data related to previously published work	Not reportable	
42	The activity is a provision of service, as opposed to independently working on a specific research aim	Not reportable	NIH requires applicants to list all positions and scient both domestic and foreign held by senior/key persor to an application including affiliations with foreign e governments.
	(see Lauer list and MITRE Report)		

2 Determination

Notes

Activity



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?



ARAM - Working Group Members

- 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



- Logistics & Coordination
 - David Wright (FDP)
- Panelists
 - Michelle Bulls
 - Jean Feldman
 - Dr. Rebecca Keiser
- Presenters
 - Lori Schultz (Arizona)
 - Amanda Humphrey (Northeastern)