

Report on Research Compliance Volume 18, Number 2. January 20, 2021

MITRE: Risk Approach May Thwart Foreign Threats, Better Federal Info, Support Essential

By Theresa Defino

“I don’t want to be on the front page of the paper with my best researcher being dragged off in handcuffs. It doesn’t look good for our university,” a senior university administrator said. “Funding has gotten harder to get in the U.S. and it became easier to get from foreign sources in some cases,” said a principal investigator (PI). “So what’s driving this is the challenges in the U.S. research environment.”

These two comments are tucked inside a new study by The MITRE Corporation, *Improper Influence in Federally Funded Fundamental Research*,^[1] which captures the fears, challenges and possible solutions related to ensuring that collaborations with non-United States investigators and institutions are legal and proper. The administrator and PIs were among the 160 researchers as well as representatives of 19 universities and eight U.S. agencies whom MITRE officials interviewed last summer for the report.

In recent years, institutions have grappled with thwarting possible foreign alliances PIs may have that pose threats to intellectual property and other fruits of research. But their efforts, they say, have been hampered by a lack of useable information from agencies and other government sources—circumstances borne out in the MITRE study. Furthermore, they have struggled to take thoughtful actions that don’t inappropriately target acceptable—and hard won—arrangements.

In June, Michael Lauer, NIH deputy director for extramural research, reported that the agency was investigating nearly 400 researchers over possible inappropriate or undeclared foreign support.^[2]

At the same time, there have been a number of high-profile cases of criminal charges against investigators,^[3] and institutions have also paid a price. In December 2019, Van Andel Research Institute paid \$5.5 million to settle False Claims Act allegations related to two former researchers’ undisclosed support from China; half was restitution, and the balance was penalties.^[4]

MITRE’s study addresses these issues within the context of the federally funded fundamental research enterprise, what MITRE calls F3RE. It also refers to efforts that can be made as causes of action (COAs).

The study highlighted “areas of consensus among stakeholders about the nature and potential negative impacts of improper foreign government influence activities identified to-date,” but also documented “different perspectives about the effectiveness of existing and planned efforts to mitigate risks.”

MITRE “identified several gaps and challenges in current mitigation approaches including lack of a risk-based perspective when evaluating international collaboration opportunities, a lack of data sufficient to evaluate risk, and the existence of a gray area of understanding among grant recipients about improper foreign influence activities, individual risk, and impacts to national security.”

Further, and “most importantly,” it said there was a “lack of an effective, systemic approach to identify, counter

and deter improper foreign influence on the F3RE.”

While “egregious cases” are easy to understand, individual PIs “continue to perceive a large gray area when presented with a specific international collaboration opportunity,” it said.

“Defensiveness based on university culture” is among the barriers MITRE listed to successfully managing foreign influences. “Research at universities is governed by the idea of academic freedom and international collaborations are critical for the success of universities and faculty. There is resistance to the idea that faculty collaborations and behaviors will be scrutinized more than they already are,” the report said.

Additionally, PIs have trouble “distinguishing proper vs. improper collaborations. Some faculty are unable to make informed decisions on whether to enter into an international collaboration because they perceive the line delineating proper and improper collaboration is unclear and changing (gray area).”

And they’re getting mixed messages. “Some PIs reported being encouraged by grantmakers or universities to collaborate with entities and individuals that are later found to be engaged in improper foreign government influence activities. Grantmaking agencies and universities have also been hesitant to ban participation in foreign talent programs. PIs felt both of these add to the confusion about how to tell if a collaboration is proper or improper,” according to the report.

But this isn’t a problem for just PIs. “Stakeholders also described an inability to distinguish between improper collaboration and improper influence,” the study said. “Some stakeholders questioned the criteria being used to determine whether an aspect of collaboration constitutes an opportunity for influence. For example, if a PI receives a \$200 honorarium from a foreign entity, is that a large enough amount to require disclosure and raise a red flag for either improper collaboration or improper influence?”

MITRE also described “foundational” COAs that would be implemented by federal agencies as well as institutions, including:

- “Extend the existing federal grants risk management framework to account for managing improper foreign government influence threats throughout the grants life cycle.” This would also include leveraging “appropriate public and private data sources and tools that can contribute to the development of the framework and support implementation.”
- “Implement a risk-based approach to assessing foreign collaborations and their potential impact on national security.” To support implementation, MITRE recommends enabling and executing an education campaign on the scope of modern national security, which includes commonly-recognized physical and cyber security interests, in addition to political, food, economic, and health security.

Related activities include implementing an “education campaign” focused “on the difference between traditional understanding of threats to research security and integrity and threats from a foreign government actor,” as well as explain “how threats from improper foreign government influence manifest differently than traditional threats to research integrity and security.” Additionally, the risk management framework would be implemented across all stakeholders, including federal agencies and different units within a university, which MITRE said would keep down costs.

- “Explore opportunities to identify areas of fundamental research as emerging and high risk and integrate into the risk framework.”
- “Increase the ability of F3RE stakeholders to share information by operationalizing an information sharing and analysis center (ISAC) model.” MITRE provided no details about this COA except to reference the

“existing Research Education Network ISAC (REN-ISAC) for prospective elements and functions that could be applicable to strengthen the resilience of the F3RE.” According to its website, the REN-ISAC “serves over 650 member institutions within the higher education and research community by promoting cybersecurity operational protections and response.”^[5]

Clearer Direction From Agencies Essential

There were a number of other recommendations for how the government could help. Universities need “more frequent, clear and consistent guidelines” from federal agencies, particularly about how to define “improper foreign government influence,” conflicts of commitment and conflicts of interest, the study said.

More clarity, perhaps as a “list of entities with which faculty should not engage,” would “help universities adhere to grantmaking agency requirements but also be proactive in identifying and countering” threats and “unacceptable collaborations.”

Universities need a sense of the “expectations” that grant-making agencies have for their role in “protecting against improper foreign government influence.” They are also looking for information on “programs that incentivize improper activities, how they work, and how people apply for them,” such as “talent recruitment programs.”

The study noted that although a “one-size-fits-all approach may be difficult for federal grantmaking agencies based on their specific mission needs...to the maximum extent possible, grant applications, required disclosures, and associated grants management processes should be consistent across agencies.”

‘Red Flags’ Include Frequent Overseas Travel

Among the recommendations is that “post-docs and graduate students who are conducting research on federal grants and visiting faculty/researchers working in labs where federally funded research is conducted should be effectively vetted as part of the evaluation of risk.” The report added that “universities have access to data sources used in their export control offices that may be helpful for that purpose.”

The report also described “red flags that may signal an improper foreign government influence risk associated with a potential collaboration which would require a higher level of scrutiny.” These do not necessarily indicate a project shouldn’t go forward.

According to MITRE, these include:

- “Exchange of money during the collaboration.
- “Lack of reciprocity.
- “Goal of the collaboration is something other than to publish the research.
- “Multi-year collaborations.
- “Frequent overseas travel.
- “Association with a foreign talent program.
- “Publishing with a foreign collaborator who is not listed on any disclosure forms.
- “Foreign collaborators who don’t have the required background or expertise to support the research topic.

- “Time commitment for the collaboration exceeds the time available after properly executing university responsibilities (e.g., working more than a certain number of days a year on an outside activity).”
- “Several foreign post-docs or visiting professors in the lab and/or high turnover of those individuals.”
- “Individuals who reach out to the university to help with research are unknown to the university, and are willing to work for free.”

Guilty Plea Shows Agencies Aren’t Immune

The risk-based framework, MITRE said, should “focus on identifying new and emerging risks,” and there “must” be coordination and consistent implementation “across the full state of stakeholders in the F3RE.”

Building a “capacity for resilience” will also require “timely access to data that is shared across government and academia and avoid the appearance of focusing on threats from a single country or of a single method of influence,” the study concluded.

The new MITRE report was announced during the Jan. 12 meeting of the Federal Demonstration Partnership.^[6] FDP formed a working group to address foreign influences and recently met privately with officials from NIH and the National Science Foundation (NSF). NIH, NSF and representatives from the Department of Defense were scheduled to participate in the session on foreign influences but cancelled a few days earlier due partly to “transition issues,” FDP officials said.

It was clear from the discussion at the FDP meeting that universities feel a sense of urgency on this issue and need federal assistance.

“We’re being left to our own devices to understand all of the complexities that we’re talking about,” said Jim Luther, vice president of finance and compliance officer at Duke University, echoing an FDP recommendation that federal agencies have the resources to provide input to institutions throughout the award cycle.

Meanwhile new cases continue to emerge—even within the government itself. On the day after the FDP discussion, the Department of Justice (DOJ) announced that a senior NASA scientist pleaded guilty to one count of making false statements related to foreign employment.^[7]

A NASA employee since 1996 and chief scientist for exploration technology at the Center for Nanotechnology at the Ames Research Center in California, Meyya Meyyappan was also a professor at three universities—one each in China, Japan and South Korea—and a member of China’s Thousand Talents program, according to his plea agreement.^[8]

These associations, which began in 2009, were not disclosed as required, and Meyyappan lied about them when questioned by the FBI and government officials in October. He faces up to five years in prison and a fine of up to \$250,000, “or twice the gross gain or loss from the offense,” DOJ said.

¹ The MITRE Corporation, *Improper Influence In Federally Funded Fundamental Research*, December 22, 2020, <http://bit.ly/3ssRLiq>.

² Theresa Defino, “NIH Continues to Probe for Untoward Foreign Entanglements in Research; Cases Reach 400,” *Report on Research Compliance* 17, no. 7 (July 2020), <http://bit.ly/3j8RnRJ>.

³ Theresa Defino, “Criminal Charges Reveal Reality of China’s Connections to Investigators,” *Report on Research Compliance* 17, no. 7 (July 2020), <http://bit.ly/38V7vBj>.

⁴ Theresa Defino, “After \$5.5M FCA Settlement, Institutions Face Bigger Risks for Mishandling Foreign

Support,” *Report on Research Compliance* 17, no. 2 (February 2020), <http://bit.ly/3ftnome>.
5 “Get to Know REN-ISAC,” REN-ISAC, accessed January 19, 2021, <http://bit.ly/39LdtWv>.
6 Federal Demonstration Partnership, “Foreign Influence Management—Enhancing the Security and Integrity of America’s Research Enterprise,” meeting, January 12, 2021, <http://bit.ly/3qoPwuF>.
7 Department of Justice, U.S. Attorney’s Office for the Southern District of New York, “Senior NASA Scientist Pleads Guilty To Making False Statements Related To Chinese Thousand Talents Program Participation And Professorship,” news release, January 13, 2021, <http://bit.ly/38PNON9>.
8 U.S. v. Meyyappan, 21 Cr. ____ (S.D.N.Y. 2021), <https://bit.ly/2XOUTXH>.

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