

# Foreign Influences on Research Integrity: NIH Experience

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NIH Deputy Director for Extramural Research

14<sup>th</sup> Joint Meeting of the Board of Scientific Advisors and the  
National Cancer Advisory Board  
December 3, 2019 (11:00 AM)

National Cancer Institute, Shady Grove Campus, Terrace Level, Room TE 406

Disclosures: None



# Breaking Stories in April, November 2019: Three Problems

"All the News  
That's Fit to Print"

## The New York Times

Late Edition

Today, sunshine and some clouds, chilly, high 54. Tonight, mostly cloudy, low 47. Tomorrow, cloudy much of the time, milder afternoon, high 60. Weather map, Page A18.

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### MD ANDERSON RESEARCHERS OUSTED AS NIH AND FBI TARGET DIVERSION OF INTELLECTUAL PROPERTY

By Paul Goldberg



Three faculty members at MD Anderson Cancer Center were sanctioned for failure to ensure confidentiality of review of NIH grants. The scientists also failed to disclose outside funding, academic appointments, and roles in laboratories outside the U.S.

### IN F.B.I.'S SIGHTS: STOLEN RESEARCH FLOWING TO CHINA

#### FEAR AMONG SCIENTISTS

Nearly 200 Investigations  
Underway at Major  
Academic Centers

By GINA KOLATA

The scientist at M.D. Anderson Cancer Center in Houston was hardly discreet. "Here is the bones and meet of what you want," he wrote in a misspelled email to researchers in China.

- Shadow laboratories; Thousand Talents; foreign grants
- Undisclosed FCOI
- Peer review breaches

Cancer Letter, April 26, 2019  
New York Times, November 4, 2019



**NIH** National Institutes of Health  
Office of Extramural Research

# **Shadow Laboratories; Undisclosed Chinese Employment and Grant Research Support**



# WHAT IS CHINA'S THOUSAND TALENTS PLAN?

*The nation's bid to lure back ex-pat scientists and recruit highly-skilled foreign researchers is now in its tenth year.*

BY HEPENG JIA

<https://www.nature.com/articles/d41586-018-00538-z>

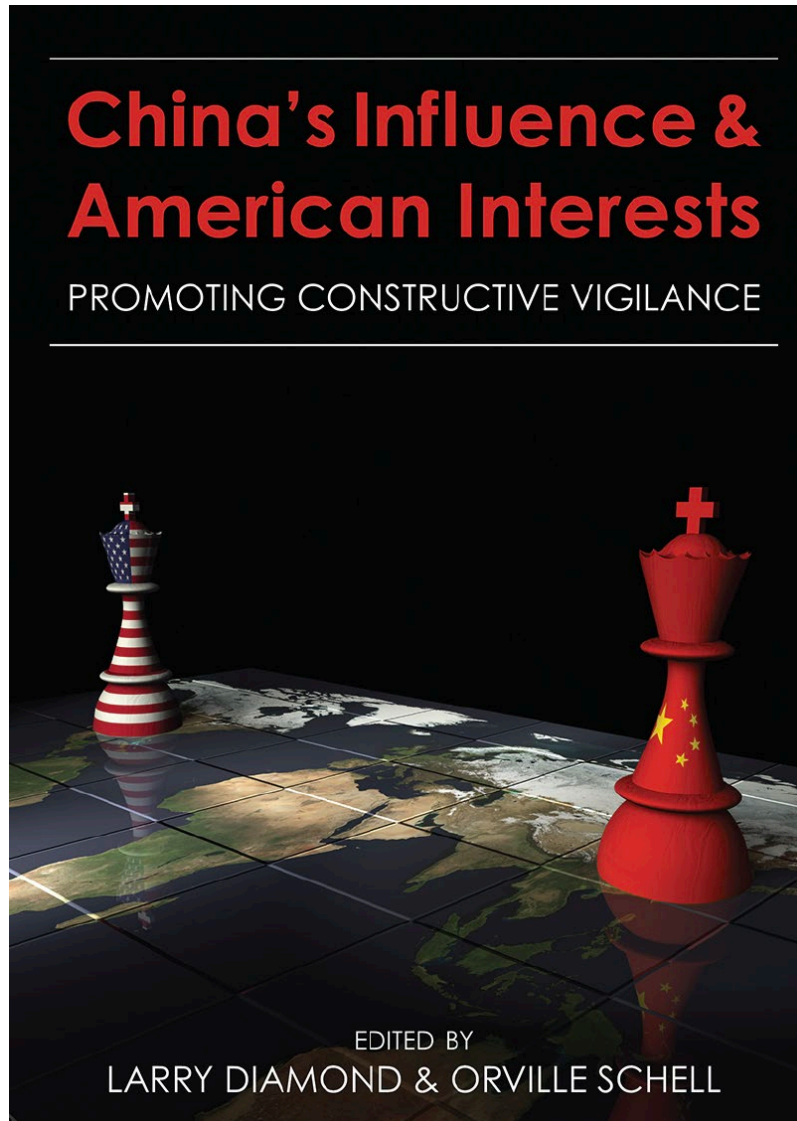
Nature January 17, 2018

## Keys to Winning a Talents Award

- “To apply, you must already have a **firm job offer from a Chinese institution** ...
- The scheme is open to Chinese scientists under 55 years of age, and foreigners younger than 65. All applicants must have worked at renowned universities outside China
- All applications to the Thousand Talents scheme go through your **Chinese university employer**.”

<https://www.nature.com/articles/d41586-018-00538-z>  
Nature January 17, 2018





“China’s most systematic channel for identifying foreign-based non-traditional collectors is its ... Thousand Talents Program (TTP) ... aims to recruit leading overseas scientists ... Official Chinese TTP websites list more than three hundred US government researchers and more than six hundred US corporate personnel who have accepted TTP money. **In many cases, these individuals do not disclose receiving the TTP money to their employer, which for US government employees is illegal and for corporate personnel likely represents a conflict of interest that violates their employee agreement.**”

Hoover Institution Press Publication No. 702  
Hoover Institution at Leland Stanford Junior University,  
Stanford, California 94305-6003

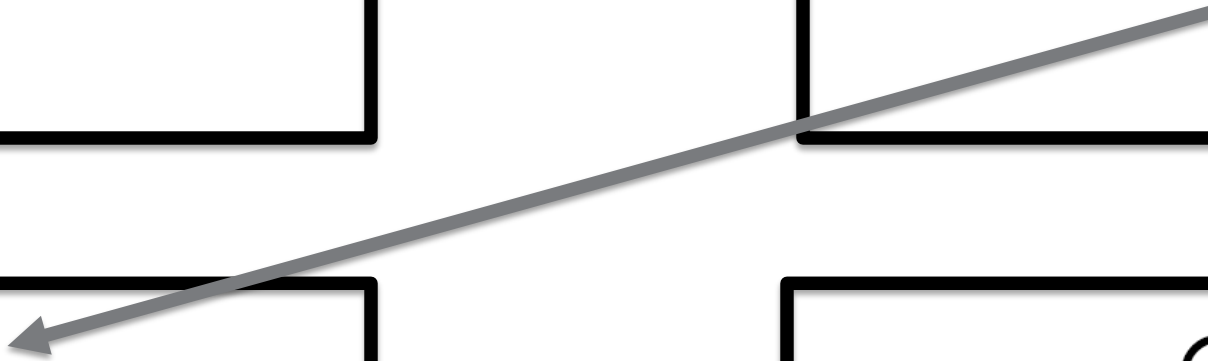
# An “Obvious” Question: What is a Recruitment?

American University

Chinese University

American Academic Leader

Chinese Academic Leader



## Reminder: Clean Recruitment

American University

American Academic Leader

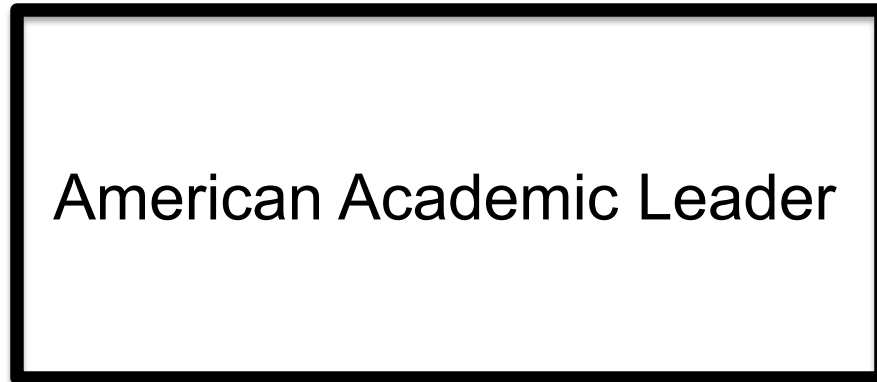
Chinese University

Chinese Academic Leader

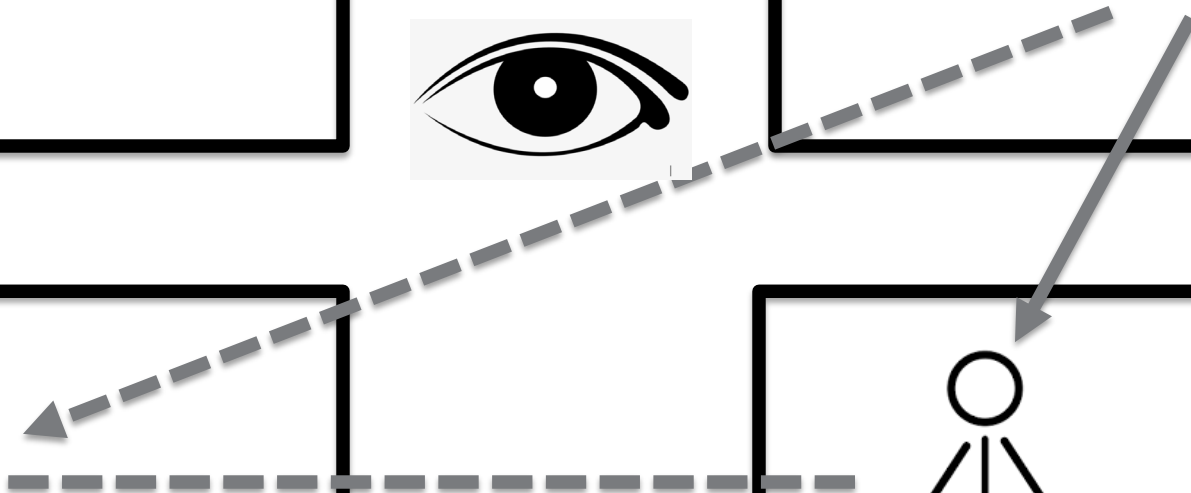
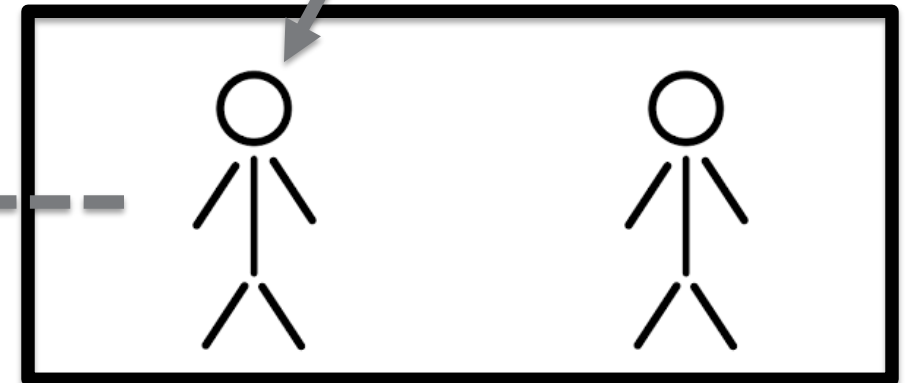
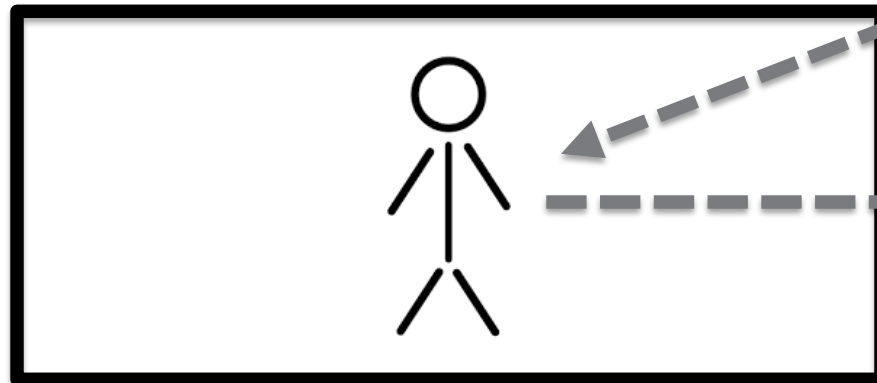
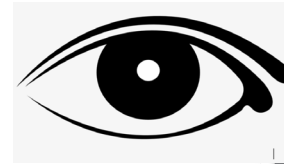
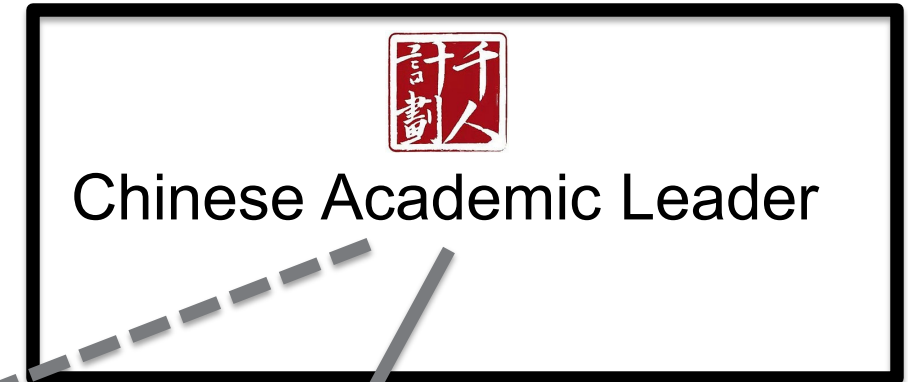




## American University



## Chinese University



# Undisclosed Foreign Employment Agreements

- Time commitment – sometimes full-time
- Substantial funding for research (including start-up funds)
- Laboratory, equipment, personnel
- Signing bonus, salary, housing, other benefits
- Deliverables: papers, patents/IP, training / personnel
- Creates conflicts of commitment (>100% effort), interest

Acknowledgements: This work was supported by a grant from .... Talents Program to XY

Supported by the National Natural Science Foundation of China (grants XXXXXXXXXX, YYYYYYYYYY) and NIH grants ...

Supported by the National Basic Research Program of China (973 Program ...)

## US Grant

- Aim 1: AAAAAA
- Aim 2: BBBBBB
- Aim 3: CCCCCC

## Foreign Grant

- Aim 1: AAAAAA
- Aim 2: BBBBBB
- Aim 3: CCCCCC

- NIH is funding grants identical or highly similar to Chinese grants
- Investigators are “double-dipping” – and not disclosing

# Undisclosed Financial Conflicts of Interest



# Undisclosed \$11.7 Million China-Based Business

广州康睿生物医药科技股份有限公司

GuangZhou KangRui Biological Pharmaceutical  
Technology Co.,Ltd.



<https://inewsource.org/2019/07/06/thousand-talents-program-china-fbi-kang-zhang-ucsd/>

## LETTER

doi:10.1038/nature14650

**Lanosterol reverses protein aggregation in cataracts**

Ling Zhao<sup>1,2,3,\*†</sup>, Xiang-Jun Chen<sup>4\*</sup>, Jie Zhu<sup>3,5\*</sup>, Yi-Bo Xi<sup>4\*</sup>, Xu Yang<sup>6\*</sup>, Li-Dan Hu<sup>4\*</sup>, Hong Ouyang<sup>2,3</sup>, Sherrina H. Patel<sup>3</sup>, Xin Jin<sup>6</sup>, Danni Lin<sup>3</sup>, Frances Wu<sup>3</sup>, Ken Flagg<sup>3</sup>, Huimin Cai<sup>1,7</sup>, Gen Li<sup>1</sup>, Guiqun Cao<sup>1</sup>, Ying Lin<sup>2,3</sup>, Daniel Chen<sup>3</sup>, Cindy Wen<sup>3</sup>, Christopher Chung<sup>3</sup>, Yandong Wang<sup>2</sup>, Austin Qiu<sup>3,8</sup>, Emily Yeh<sup>3</sup>, Wenqiu Wang<sup>3,9</sup>, Xun Hu<sup>1</sup>, Seanna Grob<sup>3</sup>, Ruben Abagyan<sup>10</sup>, Zhiguang Su<sup>1</sup>, Harry Christiano Tjondro<sup>4</sup>, Xi-Juan Zhao<sup>4</sup>, Hongrong Luo<sup>3</sup>, Rui Hou<sup>7</sup>, J. Jefferson P. Perry<sup>11</sup>, Weiwei Gao<sup>3,12</sup>, Igor Kozak<sup>13</sup>, David Granet<sup>3</sup>, Yingrui Li<sup>6</sup>, Xiaodong Sun<sup>9</sup>, Jun Wang<sup>6</sup>, Liangfang Zhang<sup>3,12</sup>, Yizhi Liu<sup>2</sup>, Yong-Bin Yan<sup>4</sup> & Kang Zhang<sup>1,2,3,12,14,15</sup>

Rui Hou<sup>7</sup>Kang Zhang<sup>1,2,3,12,14,15</sup>

<sup>1</sup>Molecular Medicine Research Center, State Key Laboratory of Biotherapy, West China Hospital, Sichuan University, Chengdu 610041, China.

<sup>7</sup>Guangzhou KangRui Biological Pharmaceutical Technology Company, Guangzhou 510005,

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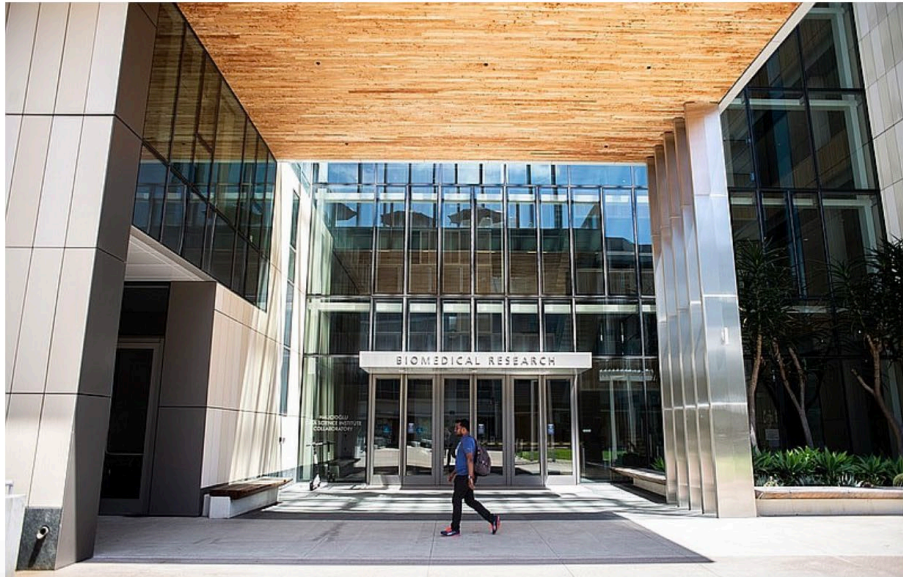
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## UCSD Doctor Resigns After inewsource Raised Questions About His China Business Ties And More Local News

San Diego News Matters / July 8, 2019



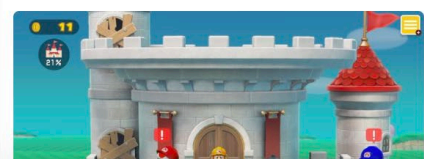
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# Peer Review Breaches



# Another Kind of Peer Review Breach

## Case 3: “Keep this confidential.”

This MD Anderson researcher was alleged to have “emailed an NIH grant application to a scientist based in the People’s Republic of China.”

According to Weber’s report, the researcher “also may have sent at least two NIH grant applications to U.S.-based scientists who were not designated by the NIH to review the material.”

In one instance, the researcher instructed the recipient of the information to “keep it to yourself.”

In another instance, the accompanying note read, “Here is bone and meat [sic] you need.”

On yet another occasion, the researcher sent an NIH grant application to a department within the National Cancer Center/Cancer Hospital Chinese academy of Medical Science. The transmittal email read: “Some methods you may learn from this proposal. Keep this confidential.”

The researcher received all of these applications from NIH legitimately, for the purposes of conducting peer review.

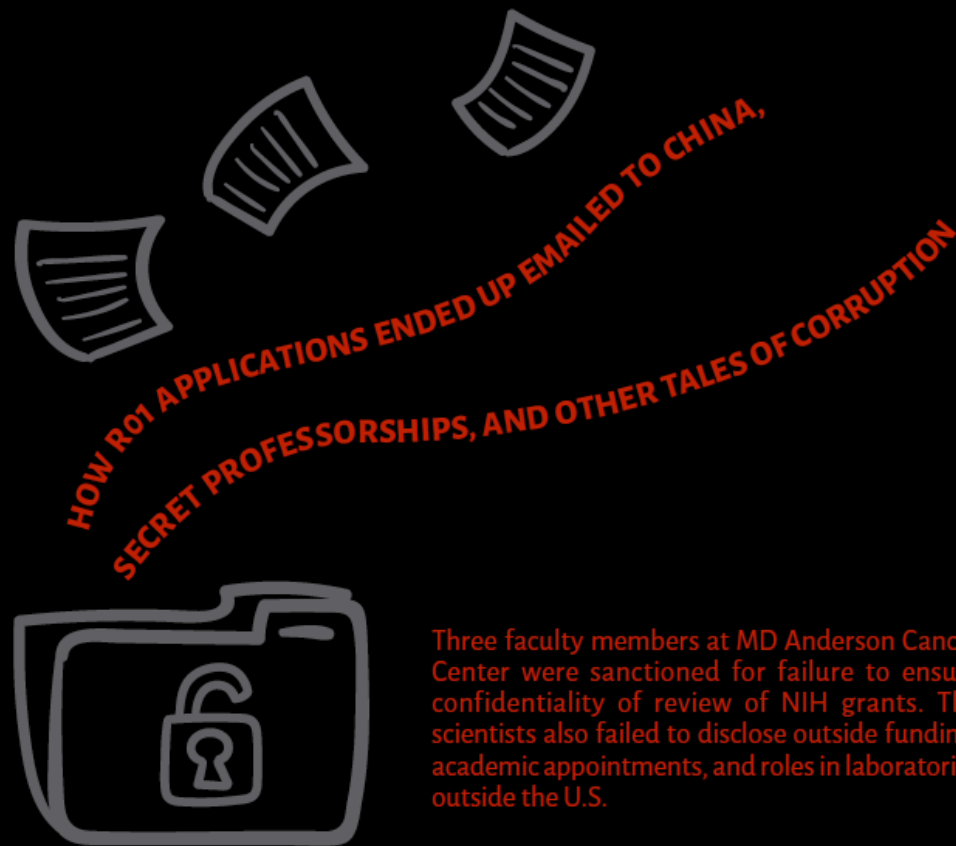
Cancer Letter, April 26, 2019



## Bottom Line: It Boils Down to Theft

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The researcher was also accused of “quid pro-quo exchanges of personal and professional benefits in pursuit of foreign ‘Talents Program’ membership,” Weber’s report alleges.

In the process, he “delivered know-how, data, and samples” to an entity in China. This appears to include primers designed and sequenced by his post-doc at MD Anderson. “Legal Services does not find any documentation showing any approved Material Transfer Agreements” associated with that delivery, the report states.

Cancer Letter, April 26, 2019



- Employee theft – not clean legitimate recruitments
  - Undisclosed outside employment contracts
  - Working for a competing employer “on company time”
- Theft from the public – distorted NIH funding
- Theft of data, documents, know-how
- Undisclosed COI – theft of proprietary information, “ip”
- Peer review breaches – theft of nascent ideas

- 70+ institutions, mostly pre-clinical research, all over US
- Denials despite documents to the contrary; explanations
  - “I allowed XXX to use my name as PI / on the grant”
  - “I knew nothing about this grant...”
  - “I didn’t actually do the work...”
  - “The affiliations [in published papers] were in error ...”
  - “It was just honorary ...”



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## Related Resources for Investigators Collaborating Internationally:

[University Research Council & Associate Deans for Research \(ADRs\)](#)

[Global Programs - Collaborating Internationally](#)

[Data & Information Security \(Report IT Threats or Compromised Accounts\)](#)

[Penn State International Travel Requirements](#)

[Export Compliance Manual](#)

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Related Policies:

[AD89 - Policy on Export Compliance](#)

[RA40 - Policy on Federal Export Regulations](#)

## International Relationships and Activities

[Background](#) | [How to Protect Yourself](#) | [Outcomes](#) | [Get Assistance](#) | [FAQ](#)

### Introduction

The U.S. Government has expressed serious growing concerns regarding inappropriate influence by foreign entities over federally funded research (see Sources below). One issue that has moved to the forefront is the failure of federally-funded researchers at U.S. institutions to disclose their relationships and activities with foreign institutions and funding agencies. Several Federal agencies have indicated that failure to disclose foreign relationships and activities may jeopardize eligibility for future funding.

Penn State encourages international collaborations, but it is important for our investigators to be transparent about their foreign relationships and activities. Penn State's Office of the Vice President for Research (OVPR) has compiled the following information to provide guidance and resources to remind Penn State researchers of their compliance obligations to federal sponsors.



*Penn State's publishing collaborations in the last five years.*

Source: [Pure.psu.edu](#)

### Rising Concern (Background)

[https://www.research.psu.edu/international\\_affiliations](https://www.research.psu.edu/international_affiliations)



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### Foreign Influence

1. [Introduction](#)
2. [Undue Foreign Influences on Research Integrity](#)
3. [Recently Issued Communications, Guidance, Regulations, and Policies](#)
  - a. [National Institutes of Health \[NIH\]](#)
  - b. [National Science Foundation \[NSF\]](#)
  - c. [Department of Energy \[DOE\]](#)
  - d. [Department of Defense \[DOD\]](#)

#### SEE ALSO

- [Glossary of compliance-related terms](#)
- [Compliance education & training](#)
- [Back to research compliance](#)



## Key Point: Encourage but be Transparent

- “While most international collaborations are acceptable **and encouraged**, we urge researchers to err on the side of **transparency**.”
- “It protects everyone’s interests – the Federal government, Penn State, individual researchers, and their international collaborators – to have international relationships **disclosed and vetted** to determine if there are any potential conflict of commitments, duplications of research, and/or diversion of intellectual property in the performance of federally funded research.”





# Incomplete Thank You

- NIH
  - Larry Tabak, Carrie Wolinetz, Jodi Black, Patricia Valdez, Sally Amero, Michelle Bulls, Julie Muroff, Kate Tapley, Mike Shannon, Bill Cullen, Liza Bundesen, Megan Columbus, Renate Myles, Katrina Pearson, Rick Ikeda, Jess Mazerik, Nicole Garbarini, Minna Liang, Francesca Bosetti, Tara Schwetz, others
- FBI, DOJ, DNI
  - John Brown, Don Lichay, Tam Dao, Melody Hounsell, Jeff Stoff, others
- Non-federal organizations
  - Wendy Streitz, Lisa Nichols, Sarah Rovito, Toby Smith, Lizbet Boroughs, Ross McKinney, Marcia McNutt, others
- DHHS
  - Michael Schmoyer, Les Hollie, Francis Montoya, Justin Bidwell, Jason Scalzo, Adam Layton, others
- State
  - Andrew Hebbeler, Megan Frisk, Staci Rijal, others
- OSTP and other research agencies
  - Rebecca Keiser, Jeremy Ison, Bindu Nair, Helena Fu, Aaron Miles, others
- Dozens of VPRs and institutional compliance / integrity leaders

