

# Protecting US Science From Undue Foreign Influence

## The NIH Experience

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Deputy Director, Office of Extramural Research  
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September 16, 2019: Dear Colleague

EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF SCIENCE AND TECHNOLOGY POLICY  
WASHINGTON, D.C. 20502

Letter to the United States Research Community

As a fellow researcher ...I know firsthand that the **open and internationally collaborative nature of the U.S. research enterprise has been critical to our success in research, .....has underpinned our Nation's prosperity and security.....the values we cherish....., the freedom to explore new frontiers, the open sharing of methods and results,..... and the passion to work with and improve the lives of others.** By adhering to these **values** and operating with **honesty, integrity, excellence and transparency**, your work has made America the world leader in science and technology.

**The Nation is indebted to you.**



**.....some nations have exhibited ..... efforts to exploit, influence, and undermine our research activities and environments.....features of some talent programs are unacceptable and inconsistent with our research values**

**these activities ... prevent the allocation of Federal funding in a fair manner based on merit.....undermines the integrity of the research enterprise .... others reap the substantial benefits of your hard work**





# FEDERAL BUREAU OF INVESTIGATION

*The inclusion of international scholars at U.S. colleges and universities entails both substantial benefit---and notable risk*



## CHINA: THE RISK TO ACADEMIA

<https://www.fbi.gov> › file-repository › china-risk-to-academia-2019

### *Vast Dragnet Targets Theft of Biomedical Secrets for China*

Nearly 200 investigations are under way at major academic medical centers

NYT Nov 4, 2019



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

NIH letter of August 18, 2019: *“The Scientists whose work NIH is proud to help support come from all over this country **and the world**, bringing rich, diverse perspectives and backgrounds to the biomedical research enterprise.”*

State Department: *Last summer the U.S. government determined that it was **in our interest** to renew our bilateral framework S&T agreement with China, **with increased oversight and scrutiny***



- 1) failure by some researchers at NIH-funded institutions to disclose substantial contributions of resources from other organizations, including foreign governments, which threatens to distort decisions about the appropriate use of NIH funds;
- 2) diversion of proprietary information included in grant applications or produced by NIH-supported biomedical research to other entities, including other countries; and
- 3) failure by some peer reviewers to keep information in grant applications confidential; including, in some instances, disclosure to foreign entities or other attempts to influence funding decisions.

## 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.

- Shadow laboratories; undisclosed employment and grant research support
- Undisclosed FCOI
- Peer review breaches

# 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>

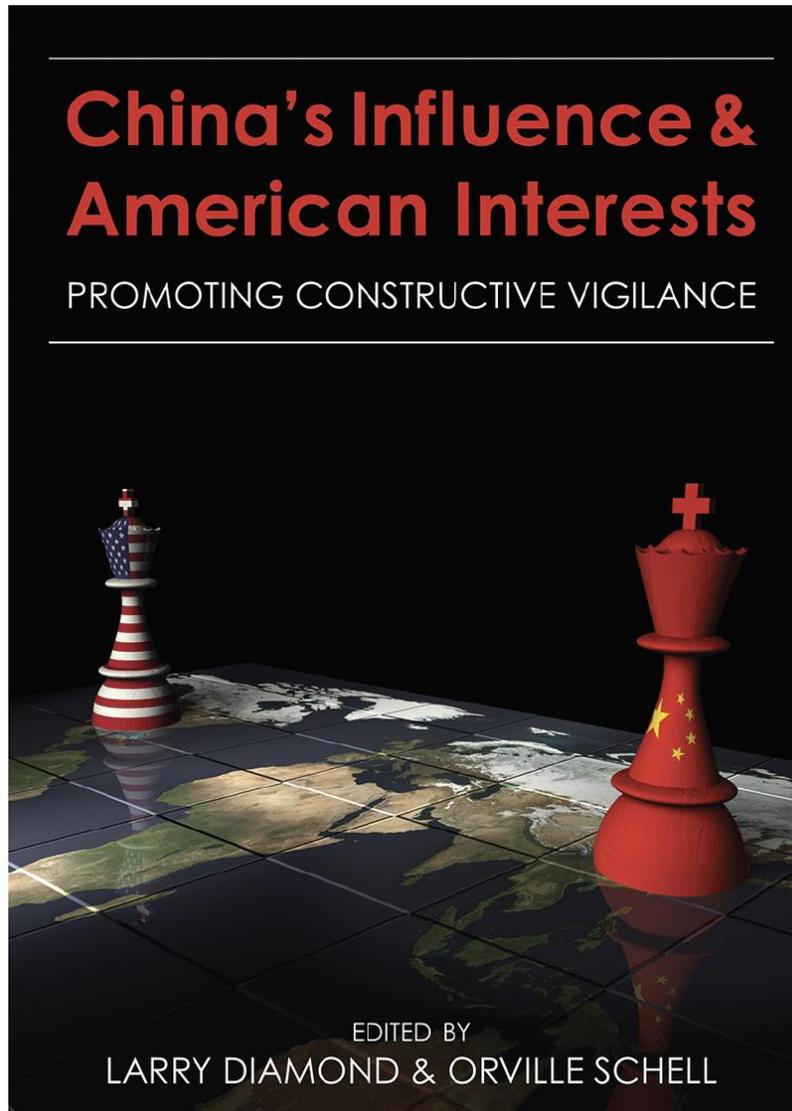
Nature January 17, 2018



- “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

# 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: training personnel, papers, patents/IP
- Chinese institution primary affiliation in publications
- Creates conflicts of commitment (>100% effort), 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>

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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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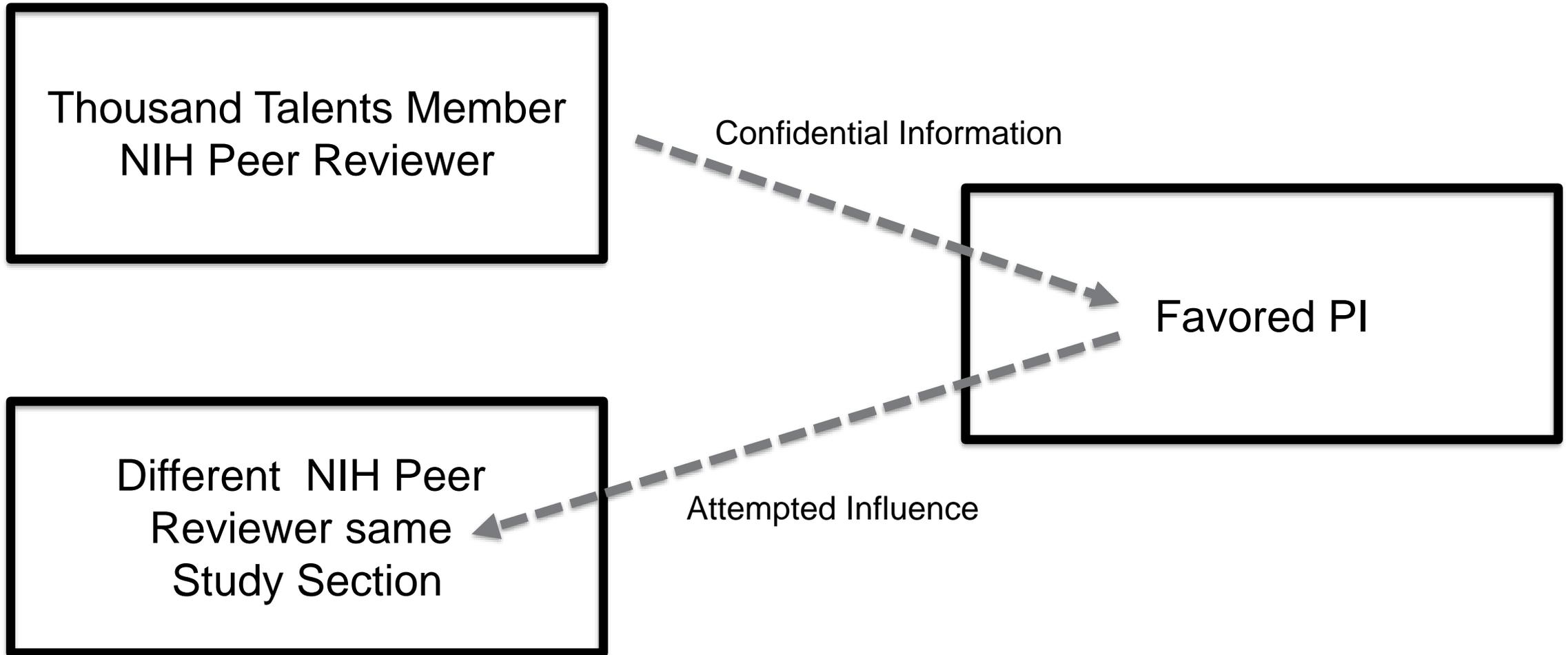
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## Case 3: “Keep this confidential.”

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 meet [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

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

By Paul Goldberg



HOW R01 APPLICATIONS ENDED UP EMAILED TO CHINA,  
SECRET PROFESSORSHIPS, AND OTHER TALES OF CORRUPTION



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.

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
  - Excessive time away “on company time”
  - Working for a competing employer “on company time”
- Theft from the public – distorted NIH funding decisions
- Theft of data, documents, know-how, identical applications
- Undisclosed COI – theft of proprietary information, “ip”
- Undisclosed FCOI – royalties, economic development theft
- Peer review breaches – theft of nascent ideas

- At least 120 scientists, not all ethnically Chinese
- 70+ institutions, many fields of biomedicine, all over US
- Nearly all in pre-clinical research
- Denials in spite of documents to the contrary
- Other explanations:
  - “I allowed XXX to use my name as PI”
  - “I knew nothing about this grant...”
  - “I didn’t actually do the work...”



NIH and the U.S. biomedical research community at large have a vested interest in mitigating these unacceptable breaches of trust and confidentiality that undermine the integrity of U.S. biomedical research.

- 1) improve accurate reporting of all sources of research support, financial interests, and affiliations;
- 2) mitigate the risk to intellectual property security while continuing NIH's long tradition of collaborations, including foreign scientists and institutions; and
- 3) explore additional steps to protect the integrity of peer review.

Sincerely yours,

Francis S. Collins, M.D., Ph.D.  
Director, NIH





**PennState**  
Vice President for Research

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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](#)

[Export Compliance & Foreign Transactions](#)

[Office of Sponsored Programs - Export Controls Info](#)

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.

### Rising Concern (Background)



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

Source: Pure.psu.edu

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



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

## 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.”

## **Actions Taken by Universities to Address Growing Concerns about Security Threats and Undue Foreign Influence on Campus**

*Updated - April 22, 2019*

*AAU and APLU are identifying and sharing practices that universities are employing to ensure the security of research, protect against intellectual property theft and academic espionage, and prevent actions or activities by foreign governments and/or other entities that seek to exert undue foreign influence or which infringe on core academic values (e.g. free speech, scientific integrity, etc.).*

- For NIH, a new type of threat
- Failure to disclose: COI, FCOI, and CoC
  - Distorts funding decisions, contributes to hypercompetitive funding environment
- Extensive institutional outreach has yielded results
- Working closely with other agencies and stakeholders towards harmonized disclosure requirements
- Together, there is much more to do and learn

# 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

