



PRC Foreign Talent Recruitment Programs Test US Research Security

Series Editors: Glenn Tiffert and Kevin Gamache

In the People's Republic of China's (PRC), foreign talent recruitment programs are core components of a comprehensive, highly integrated toolkit for achieving state strategic goals that include global preeminence in science and technology, industrial and economic self-reliance, vibrant innovation chains, and military strength. This advisory analyzes the sophisticated foreign talent recruitment strategies the PRC pursues, the limitations of current US compliance frameworks, and the challenges evolving PRC practice poses to the US research community.

Key Findings:

Expanding scope. The PRC's foreign talent recruitment programs have historically focused on the ethnic Chinese diaspora. However, in recent years the PRC has redoubled its efforts to recruit researchers of other backgrounds across diverse fields, from AI and semiconductors to applied mathematics and the social sciences. A growing number of elite international scientists with no ancestral ties to China are moving their careers to the PRC full-time.

Compliance may not deliver security. Better compliance may not equal better security. The US compliance regime concerning foreign talent

recruitment programs centers on integrity, while the PRC focuses on capability acquisition.

Adaptation. The PRC has adapted its recruitment methods to evade detection and neutralize US research security measures. These adaptations include:

- ▶ **Covert recruitment:** Moving away from overt plans toward secret initiatives and the use of third-party headhunters and LLM-polished solicitations.
- ▶ **Strategic gateways:** Utilizing Hong Kong as an entry point. The integration of Hong Kong into the Greater Bay Area (GBA) allows the PRC to attract talent and data through a veneer of separation while directing research toward Beijing's strategic priorities.
- ▶ **Prestige magnets:** Recruiting global scientific elites to lead local labs, headline high-profile forums, and build international goodwill reinforced by a PRC architecture of professional awards and honors.
- ▶ **Attractive packages:** Offering candidates globally competitive lifestyles, research facilities, funding support, intellectual communities, and paths for career advancement.

Strategic recommendations:

The US research community cannot simply regulate its way to security. To mitigate talent program risks, it must reach beyond a restriction-based or punitive approach. This includes:

1. *Holistic security practice:* Research security practitioners and researchers in general should understand talent programs broadly and build trusted relationships to detect evolving recruitment trends.
2. *Nimble tradecraft:* Institutions must adjust their countermeasures in real time and enhance their due diligence on professional honors, international conferences, and consulting arrangements that may serve as proxies for malign talent recruitment programs.
3. *Competitive ecosystems:* The US must compete more effectively in a global marketplace for talent characterized by high labor mobility. Cultivating a domestic research environment that is more attractive than the overseas alternatives is essential to research security success. This requires predictable funding, modernized infrastructure, and a supportive professional climate to retain domestic and global talent.

Conclusion. The PRC is aggressively seeking to shift the global center of gravity in science and technology. As it adapts its talent recruitment strategies to neutralize US responses, the US research community must move with resolve and agility—not only by continually refining risk indicators and compliance mandates, but also by ensuring the US remains the premier destination for global science and innovation for US citizens and eligible immigrants.

On March 12, 2026, the national legislature of the People's Republic of China (PRC) adopted a draft of the Fifteenth Five-Year Plan (FYP), the government's authoritative blueprint for economic and social development from 2026 to 2030. The FYP spells out the goals, priorities, and benchmarks around which every level and branch of the government of China (GOC) will mobilize. Among its many appeals to science, technology, research and innovation as enablers of national strategic goals, the FYP includes a call to “strengthen support mechanisms for overseas talent recruitment, establish a high-technology talent immigration system, and nurture world-class talent.”¹ The PRC's ministries, localities, and industries will line up to implement these mandates and as they do the global competition for talent will intensify and evolve. Effective research security practice requires following such developments closely and understanding them in context so that compliance requirements, policies, and risk indicators keep pace.

This advisory considers recent developments in the PRC's approach to foreign talent recruitment that may test prevailing US compliance frameworks. It assumes no background knowledge, but readers looking for a general introduction to the subject are referred to other sources.² The focus on the PRC reflects demand side considerations; while other nations operate talent recruitment programs that merit special attention on research security grounds, such as Russia and Iran, the PRC's programs stand apart for their scale, variety, and adaptability.

Part 1 sets the stage with a high-level survey of the PRC's talent program ecosystem and its place within the GOC's strategic vision. Part 2 outlines the basic compliance mandates US law and policy impose on US institutions and researchers regarding PRC talent programs. Part 3 considers how PRC talent programs are adapting to changing strategic needs and US policy. Part 4 looks at emerging practices that test the fitness of the



current compliance regime for research security purposes. Part 5 argues that effective research security practice must adapt to rather than struggle against the global marketplace for talent. This will require flexible, layered approaches from a cross-section of stakeholders that either accept the waning of uncontested US strength in science and technology (S&T) or mobilize to reverse it.

Part 1: Talent Recruitment Programs: An Introduction

Talent recruitment programs are a widely accepted tool used by governments and firms around the world to nurture domestic human capital, promote skills critical to key industries or policy goals, and retain or attract outstanding individuals in a competitive global marketplace. However, the PRC's talent recruitment programs stand apart not only for their scale, scope, dynamism, and hazards, but also because US funding agencies and law treat them differently for compliance purposes.³

They belong to a class of pervasive mechanisms in the PRC for identifying, ranking, and mobilizing inputs towards state- or firm-directed goals, with analogs in the GOC's implementation of industrial policy and related pursuits.⁴ They operate not in isolation but as components of systematic economic, technological, and military development plans that include construction of related facilities, infrastructure, and manufacturing sites; workforce development; earmarked subsidies and funding streams; ideological study; and preferential government investment, tax and land use policies. NSF SECURE Analytics described this integrated approach in a June 2025 advisory.⁵ To work with partners in the PRC is to participate in this ecosystem and assume its risks.⁶

The GOC sponsors hundreds of talent recruitment programs at the national, provincial, and local levels. State-owned enterprises and quasi-private firms in which the GOC exercises significant control run others.⁷ In addition, the GOC contracts with hundreds of ostensibly non-governmental groups operating abroad under the aegis of the Chinese Communist Party's United Front, such as the Western Returned Students Association, alumni associations, hometown associations, and professional HR services agencies to recruit talent, including through a network of Overseas Talent Recruitment Stations (海外招才引智工作站).⁸ Others have described these variants in detail.⁹

The names, number, character, and requirements of the PRC's talent recruitment programs are ever shifting and frequently clouded in secrecy. They may recruit exclusively domestic or overseas participants, or both. As a group, they target workers across a wide range of ages and fields, from high technology, engineering, and advanced manufacturing to finance and the social sciences.¹⁰ Programs emphasizing underrepresented demographics such as youth, ethnic minority, and women scientists have appeared, as have programs tailored to regional or local economic development goals. No exhaustive, regularly updated lists of these programs or their participants are available to research security practitioners in the open source. Moreover, mapping US compliance requirements on to this crowded and dynamic space is challenging. Research security practitioners must be prepared to discover facts, assess edge cases, and exercise judgment.

Most PRC talent recruitment programs recruit domestically. The subset that provides for overseas recruitment reflects the high prestige the GOC has historically accorded international educations and professional experience. Overseas foreign talent



recruitment programs were in part responses to brain drain, the tendency over a generation for the PRC's most talented students to settle abroad after obtaining foreign degrees. They have been particularly attractive to scholars with family ties or professional networks in the PRC who are subject to the "summer ninths" compensation structure, common in the US, which incentivizes faculty to seek externally funded research opportunities during the summer months. To encourage permanent relocation rather than short visiting stints, the Ministry of Human Resources and Social Security launched an *Overseas Chinese Serving the Country Action Plan* (海外赤子为国服务行动计划) in 2010 that aimed to support at least 519 programs for returnees spanning over 100 professional and technical fields by 2025.¹¹ Judging by a steady uptick in the number of accomplished mid-career or senior researchers born in the PRC who are resettling there after years abroad, it is succeeding.¹²

Across much of the twentieth century, when China faced poverty and predation from hostile powers, access to advanced skills and technology were matters of national survival. Today, foreign talent recruitment programs support Xi Jinping's grand project of promoting national strength and self-reliance in a world riven by geopolitical rivalry. In the language of the 15th FYP, they promote "independent scientific and technological innovation and the autonomous cultivation of talent." More to the point, they exemplify a long-standing CCP doctrine encapsulated by Mao Zedong in 1964 as "making the foreign serve China" (洋为中用).¹³

Part 2: The US Compliance Framework

The PRC's foreign talent recruitment programs facilitate legitimate international research collaboration, but their core purpose is to transfer foreign knowledge, skills, data, and technology. As the geostrategic interests of the US and the PRC diverge, the success of these programs has increasingly come at the expense of US national and economic security. Diversions of US research to PRC military programs, misappropriation and theft of US intellectual property, foreign interference in US research, conflicts of interest and commitment, and breaches of human rights and research ethics are among their documented harms.¹⁴

Despite these harms, US law does not criminalize talent program participation. Attempts to prosecute participants for ancillary offenses such as wire or grant fraud, tax evasion, economic espionage, theft of trade secrets, acting as an unregistered foreign agent, export control violations, or making false statements to federal agencies have yielded mixed results because of the muddled state of past federal policy and the imperfect fit of the available statutes.¹⁵ Administrative action by funding agencies has been far more common, typically for violations of disclosure rules.¹⁶ For example, from 2018 through December 3, 2025, the National Institutes of Health (NIH) contacted institutions about serious compliance violations in 271 cases, of which 140 (51.7%) involved undisclosed talent support. The outcomes in only 41 (29.2%) of these cases involved self-disclosure by the program participants. The remainder involved internal reviews or FBI referrals. Crucially, the total number of cases leading to NIH contact with institutions crested at approximately 110 in 2019 and fell sharply beginning in 2020 to fewer than 10 in 2025.¹⁷



The CHIPS and Science Act of 2022 distinguishes between foreign talent recruitment programs (FTRPs) in general and malign foreign talent recruitment programs (MFTRPs) in specific. Research security practitioners should bear in mind that these categories are US constructs that only imperfectly capture the actual landscape of talent programs in the PRC; the GOC neither uses these labels nor recognizes the definitions attached to them. Whether a PRC foreign talent recruitment program qualifies as a FTRP or MTRP under US law are definitional and compliance matters that can be related to, but are distinct from, any risk it may pose. Programs that do not qualify may nevertheless pose research security risks and should be evaluated on a case-by-case basis.

Section 10631 of the CHIPS and Science Act prohibits certain classes of federal personnel from participating in FTRPs, requires covered individuals to disclose participation in FTRPs, prohibits awards for proposals in which a covered individual is participating in a MFTRP, and requires institutions to prohibit covered individuals¹⁸ in MFTRPs from working on projects supported by research and development awards.¹⁹ Section 10632 of the Act requires covered individuals to certify annually that they are not participating in a MFTRP.²⁰ Federal funding agencies have adopted corresponding rules that impose compliance requirements on researchers and their employers.²¹

Pursuant to the Act, the White House Office of Science and Technology Policy (OSTP) issued an authoritative definition of FTRP in 2024. That definition reads:

“A foreign talent recruitment program is any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation,

complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to an individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue.”²²

Crucially, the FTRP regime seeks to protect legitimate research collaboration by exempting an enumerated list of routine scholarly activities so long as they are not funded, organized, or managed by an academic institution or a foreign talent recruitment program designated under paragraphs (8) or (9) of the National Defense Authorization Act of 2019's Section 1286(c) list.²³ As a result, some PRC talent recruitment programs that in fact recruit foreign participants are not FTRPs for US compliance purposes.

The definition of a malign foreign talent recruitment program is more complicated. It begins with Section 10638(4) of the CHIPS and Science Act of 2022, which lays out several criteria, including whether compensation is given in exchange for a specified list of undesirable behaviors, and the identity of the program or its sponsor.²⁴ Section 10638(2) of the Act identifies four countries of concern, which trigger special consideration, by name: the People's Republic of China, the Democratic People's Republic of Korea, the Russian Federation, and the Islamic Republic of Iran.²⁵ On top of this, the 2025 annual update to the Department of War's Section 1286 list designates six FTRPs by name as malign: the Changjiang Scholar Distinguished Professorship

(a tier of the Changjiang Scholars Program), the Hundred Talents Plan,²⁶ Pearl River Talent Program, Project 5-100, River Talents Plan, and Thousand Talents Plan. Attentive readers will notice that the CHIPS and Science Act refers to “programs” while the 1286 list sets forth both “programs” and “plans.” These are alternate translations of the Chinese term *jihua* (计划). This advisory adopts “program”

except when a “plan” is more commonly known as such. Although it has been widely reported that the Thousand Talents Plan is defunct and has been superseded by the Qiming Plan, no authoritative GOC announcement affirms this and NSF SECURE Analytics has found a Thousand Talents Plan solicitation from 2025 that indicates it may still be active.²⁷

DEFINITION OF MALIGN FOREIGN TALENT RECRUITMENT PROGRAM (CHIPS AND SCIENCE ACT OF 2022)

A malign foreign talent recruitment program is:

(A) any program, position, or activity that includes compensation in the form of cash, in-kind compensation, including research funding, promised future compensation, complimentary foreign travel, things of non de minimis value, honorific titles, career advancement opportunities, or other types of remuneration or consideration directly provided by a foreign country at any level (national, provincial, or local) or their designee, or an entity based in, funded by, or affiliated with a foreign country, whether or not directly sponsored by the foreign country, to the targeted individual, whether directly or indirectly stated in the arrangement, contract, or other documentation at issue, in exchange for the individual—

(i) engaging in the unauthorized transfer of intellectual property, materials, data products, or other nonpublic information owned by a United States entity or developed with a Federal research and development award to the government of a foreign country or an entity based in, funded by, or affiliated with a foreign country regardless of whether that government or entity provided support for the development of the intellectual property, materials, or data products;

(ii) being required to recruit trainees or researchers to enroll in such program, position, or activity;

(iii) establishing a laboratory or company, accepting a faculty position, or undertaking any other employment or appointment in a foreign country or with an entity based in, funded by, or affiliated with a foreign country if such activities are in violation of the standard terms and conditions of a Federal research and development award;

(iv) being unable to terminate the foreign talent recruitment program contract or agreement except in extraordinary circumstances;

(v) through funding or effort related to the foreign talent recruitment program, being limited in the capacity to carry out a research and development award or required to engage in work that would result in substantial overlap or duplication with a Federal research and development award;

(vi) being required to apply for and successfully receive funding from the sponsoring foreign government's funding agencies with the sponsoring foreign organization as the recipient;

(vii) being required to omit acknowledgment of the recipient institution with which the individual is affiliated, or the Federal research agency sponsoring the research and development award, contrary to the institutional policies or standard terms and conditions of the Federal research and development award;

(viii) being required to not disclose to the Federal research agency or employing institution the participation of such individual in such program, position, or activity; or

(ix) having a conflict of interest or conflict of commitment contrary to the standard terms and conditions of the Federal research and development award; and

(B) a program that is sponsored by—

(i) a foreign country of concern or an entity based in a foreign country of concern, whether or not directly sponsored by the foreign country of concern;

(ii) an academic institution on the list developed under section 1286(c)(8) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115-232); or

(iii) a foreign talent recruitment program on the list developed under section 1286(c)(9) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (10 U.S.C. 4001 note; Public Law 115-232).

Part 3: Shifts in Recruitment Behavior

The earliest contemporary PRC foreign talent recruitment programs launched in the 1990s (Table 1). After several years of experimentation, the PRC Ministry of Education released an *Outline of the*

National Plan for Talent Development (2002-2005) that called for implementation of a “talent superpower strategy” (人才强国战略).²⁸ In 2007, this formulation was incorporated into the Constitution of the Communist Party of China. More recently, it featured prominently in a 2024 volume of *Selected Statements by Xi Jinping on Talent Development*, affirming its enduring centrality as policy.²⁹

TABLE 1 ▶ SELECT PRC FOREIGN TALENT RECRUITMENT PROGRAMS

Leader	Program name	Main Sponsor	Target groups
1994	Hundred Talents Plan (百人计划) ³⁰	Chinese Academy of Sciences	Eminent scientists and engineers; accomplished young scientists
1998	Changjiang Scholars Program (长江学者奖励计划) ³¹	Ministry of Education & Li Ka-shing Foundation	Eminent scholars; accomplished young scholars
2006	Project 111 (高等学校学科创新引智计划) ³²	Ministry of Education and the State Administration of Foreign Experts Affairs	Eminent scholars from the world's 100 top global universities to build world-class innovation bases in key disciplines
2008	Thousand Talents Plan (海外高层次人才引进计划, aka 千人计划) ³³	CCP Organization Department and the Ministry of Human Resources and Social Security	Outstanding young and middle-aged overseas scientists, academics and entrepreneurs in strategic fields. Contrary to some reports, it was not rebranded as the Qiming Plan and continues to operate quietly
2021	Qiming Plan (aka Enlightenment, 启明计划)	Ministry of Industry and Information Technology	Overseas experts in bottleneck or strategic technologies; enterprise-focused; highly selective; secretive

Today, no matter who you are, from recently minted overseas Ph.D. to Nobel laureate, there likely is a PRC foreign talent recruitment program for you. Typically, they offer several tiers of eligibility tailored to candidates with different levels of achievement and seniority. Compensation and other terms vary accordingly. Some offer part-time, visiting appointments to accommodate those who wish to maintain their lives and careers abroad. Others formally require full-time appointments in the PRC.

The full terms and conditions of a PRC foreign talent recruitment program may appear only

in the contract the participant signs with their host institution and may deviate materially from the program’s official public description. These contracts often stipulate demanding performance requirements with regard to publications, patents, teaching, mentorship of local students, and professional awards.³⁴ There is no guarantee that a talent program participant will voluntarily disclose the contract to their US employer, and they may hide their talent program correspondence on devices or in email accounts beyond their employer’s reach.

SPOTLIGHT ON HONG KONG

Hong Kong is a special administrative region of the PRC. Section 10638(2) of the CHIPS and Science Act of 2022 identifies the PRC as a foreign country of concern, but the Hong Kong Policy Act of 1992 stipulates that Hong Kong shall be treated as distinct from the PRC due to its status as a special administrative region with de jure autonomy from Beijing.³⁵ This generates ambiguity and inconsistency in research security practice.

In recent years, Hong Kong's autonomy has eroded significantly.³⁶ Beijing is pursuing a vision of “deep integration of industry, academia, and research” between Hong Kong and the mainland through a “cross-border collaborative development model.”³⁷ The goal of “conducting experiments in Hong Kong in the morning and discussing industry in Shenzhen in the afternoon” has reoriented Hong Kong's research ecosystem increasingly towards the mainland, towards supporting strategic S&T priorities set in Beijing, towards sharing data and materials with mainland institutions, and towards a mainland system of governance that contrasts with Hong Kong's traditions.³⁸ Academic freedom and civil and political rights have been sharply circumscribed.³⁹

The GOC nevertheless touts Hong Kong as a beacon of freedom and openness and offers it as an entry point for global talent, capital, and knowledge exchange that might be wary of interacting with the PRC proper.⁴⁰ The city is an increasingly popular destination for international academic conferences and meetings in critical and emerging technologies, such as semiconductors and battery technology—venues where PRC scholars, including those based at entities in the PRC designated on US restricted party lists, have the opportunity to interact with international researchers who might not otherwise travel to mainland China.⁴¹ Such activities, no matter how informal, may entail research security risks and trigger compliance requirements.

Beijing is promoting Hong Kong's development as a key node of the Greater Bay Area (GBA), a megaregion that also encompasses the economic powerhouse mainland cities of Guangdong and Shenzhen.⁴² This is altering the physical geography of research in Hong Kong. Hong Kong based scientists are now eligible for funding previously restricted to those in mainland China.⁴³

Hong Kong's universities have opened branch campuses in the mainland that focus on “key areas such as artificial intelligence, smart cities, robotics, aerospace, and autonomous driving,” while research parks and start-up incubators are increasingly set up in joint GBA zones and in areas of Hong Kong that border the mainland.⁴⁴

One such facility, a research lab and production hub that seeks to support PRC self-reliance in semiconductors is led by an academic formerly based in the US whose research in semiconductors had been supported by the US Army.⁴⁵ Three of the Nobel Laureate Labs discussed further below are hosted by the Shenzhen branch campus of a Hong Kong university. As of summer 2025, fifteen research institutes in Hong Kong have been designated as PRC National Key Labs.⁴⁶ These labs have focus areas that include biomedical technology and optical quantum materials and are intended, per PRC state media, to function as nodes where Hong Kong science can “engage in a wider platform, enjoy opportunities and offer contributions as a member of the national team.”⁴⁷

Hong Kong plays as a member of the national team by operating as a base for PRC talent programs. Members of the research community have shared with NSF SECURE Analytics non-public solicitations they received directly from PRC talent programs that mention the ability to participate in the programs while living in Hong Kong as a selling point for overseas scholars, including scholars in high performance computing, mathematical modeling, and machine learning.⁴⁸ Furthermore, in 2021, the Hong Kong government opened an office to advance its municipal ambitions to attract and retain global talent. Known as Hong Kong Talent Engage, the office's Chinese name translates literally to “Hong Kong Talent Services Office” (香港人才服务办公室).⁴⁹

These efforts have borne impressive fruit. In 2025, the World Intellectual Property Organization (WIPO) ranked the Shenzhen-Hong Kong-Guangdong region as the world's top innovation cluster, beating Silicon Valley.⁵⁰ PRC state media celebrated the WIPO designation as evidence of the success of the GBA's integrated focus “on the entire chain of basic research + technological breakthroughs + technology transfer + science and technology finance + talent support.”⁵¹

The PRC's foreign talent recruitment programs are adapting as foreign scrutiny of them escalates and as the GOC's goals evolve. In many instances, GOC sponsors and institutional hosts have purged their websites of evidence of past participants and no longer announce new cohorts publicly,

making open-source collection challenging. New talent programs appear regularly, such as the Qiming (Enlightenment, 启明), Huoju (Torch, 火炬), Changcheng (Great Wall, 长城) and Ruijin (瑞金) plans. Qiming is of special interest because no official site describes the program; however,



third-party recruitment pages for the 2025 cohort list “bottleneck” technologies, including artificial intelligence algorithms, autonomous driving, industrial software, high-end equipment manufacturing, and new materials R&D, as priority areas, while specifying that “technological achievements [of participants] must fill domestic gaps or be at an internationally leading level.”⁵² In 2020, Zhejiang province launched the Kunpeng Initiative (鲲鹏行动) to recruit domestic and overseas academic and industry talent for the digital economy, life sciences, and new materials.⁵³ The former vice chair of Yale University’s department of genetics, who is now vice president of Westlake University in Hangzhou, was among its first class of recipients.⁵⁴

Participants continue to work directly with potential host institutions to apply in the traditional manner, but an intermediary layer of recruiters or headhunters has also emerged to solicit candidates through side channels. Their initial outreach to overseas researchers may arrive over email, social media, or direct messaging apps. Often it is brief with sparse details and an invitation to continue the conversation privately over the phone or on WeChat, a PRC social media and messaging app.

An example of a detailed solicitation received by a US faculty member in 2025 over email appears below. The talent program in question, the Research Fund for International Scientists (RFIS, 外国学者研究基金项目), “is set up by the National Natural Science Foundation of China (NSFC) to support international scientists with foreign citizenship who are ready to conduct basic research and Applied Basic Research in China’s mainland. The RFIS will also enhance the long-term, sustainable academic collaboration and exchange between Chinese and international scientists.”⁵⁵

Several things are noteworthy about this solicitation. First, it uses polished professional English that is a cut above solicitations from several years ago. This may become the norm as LLMs proliferate. Second, the RFIS’ official eligibility requirements remind applicants to “strictly follow relevant national laws, regulations and codes of ethics” if their proposed research involves “scientific research ethics and scientific and technological security.” Taken at face value, this could be read as a defense against MF-TRP designation. Third, the requirements stipulate a “commitment to work for no less than 9 months each year (calendar year) at the host institution during the implementation of the project.”⁵⁶ Crucially, the email solicitation deviates from this requirement by offering a more flexible arrangement: “... much of your research can be conducted at your home institution, occasional visits to China may be required...You will be employed as a consultant.” In principle, this could fit within the scope of external consulting many US institutions allow their faculty, but its duration could create conflicts of interest and commitment that would nevertheless make the talent program malign under US law. Fourth, allowing the participant to “serve in place” invites further conflicts if US participants use resources from their home institutions, such as facilities, equipment, staff, data, and students, to fulfill the program’s obligations.

Fifth, the recruiter asserts that they have an annual quota to fill and offers to help ensure the success of the applicant’s application, refine their proposal, and find collaborators in the PRC, which raises questions about procedural fairness but is consistent with other evidence that recruiters receive commissions or other incentives to meet their targets. Finally, the RFIS does not announce itself as a “talent program” or “talent plan” (人才计划); it eschews these words in the English and Chinese versions of its program name and website. Other recent talent programs exhibit the same avoidance, such as the Kunlun

Initiative for People of Outstanding Ability (昆仑英才行动) and the aforementioned Kunpeng Initiative. Similarly, many Chinese-language websites covering talent programs no longer refer to the programs by name but instead resort inventively to Latin script initials, for example QM (Qiming), HJ (Huoju), CC (Changcheng), RJ (Ruijin), CJ (Changjiang), and HY (Overseas Excellent Young Scholars Program).

This outreach to US researchers is not unique; the PRC's foreign talent recruitment programs are active in other advanced economies, too. Following a surge of high-profile exits to the PRC in critical technology fields, particularly semiconductors, authorities in South Korea uncovered a concerted email campaign in 2025 to recruit scientists into the Thousand Talents Plan, further evidence that it is alive and well. The Korea Basic Science Institute received 226 such emails, the Korea Institute of Materials

Science received 188, the Korea Institute of Science and Technology Information (KISTI) received 127, and the National Institute of Toxicology received 114 from domains such as 1000fb.com and 1000help.com.⁵⁷ Cybersecurity measures intercepted or blocked most of the emails, but some reached their targets. Ever resourceful, the recruiters shifted to individual outreach, in some cases arranging business trips to the PRC to cultivate prospective applicants. In 2024, a similar campaign targeted 149 professors at the Korea Advanced Institute for Science and Technology (KAIST), or 22 percent of the faculty at the time, with offers of lucrative pay and allowances for housing, social insurance, and children's educations.⁵⁸ Among the respondents to a 2025 survey, 82.9% of those who had received appointments to KAIST in the preceding five years had received outreach from the PRC.⁵⁹

SAMPLE OF A MFTRP SOLICITATION (2025)

I hope this email finds you well.

I would like to invite you to apply for the Research Fund for International Scientists 2026 (hereinafter referred to as the RFIS). RFIS is set up by the National Natural Science Foundation of China (NSFC) to support international scientists to conduct their research. The RFIS will also enhance the long-term, sustainable academic collaboration and exchange between Chinese and international scientists.

The projects are expected to start in November, 2026, and close on December 31, 2028. The Average award amount is following, and all the funding is direct cost: Research Fund for International Scientists (hereinafter referred to as the RFIS)

- For the RFIS-I, applicants can apply for up to 30,000 USD per year (per project) .
- For the RFIS-II, applicants can apply for up to 60,000 USD per year (per project) .
- For the RFIS-III, applicants can apply for up to 150,000 USD per year (per project) .

As a host institution, we have a special expert recommendation quota every year. Currently, we still need more international scientists to apply. We will try our best to ensure that you will be nominated. At this stage, only a brief expression of interest is needed.

Once your application is received, we will assist you in refining your project proposal and identifying suitable collaborators in China.

Project Expectations:

The RFIS program focuses on collaborative research with Chinese institutions, such as laboratories, universities, and enterprises. While much of your research can be conducted at your home institution, occasional visits to China may be required for meetings, presentations, or short-term engagements. You will be employed as a consultant once you are nominated.

For more detailed information, please kindly read this website:

https://www.nsfc.gov.cn/english/site_1/international/D5/2025/01-17/388.html

Call Guidelines for Research Fund for International Scientists in 2025

国家自然科学基金委员会
www.nsfc.gov.cn

(The official announcement for 2026 is expected to be released around mid-January.)

If this invitation interests you, or you have any questions, please feel free to contact me. Attached is the application form and necessary attachment material list.

We look forward to hearing from you.

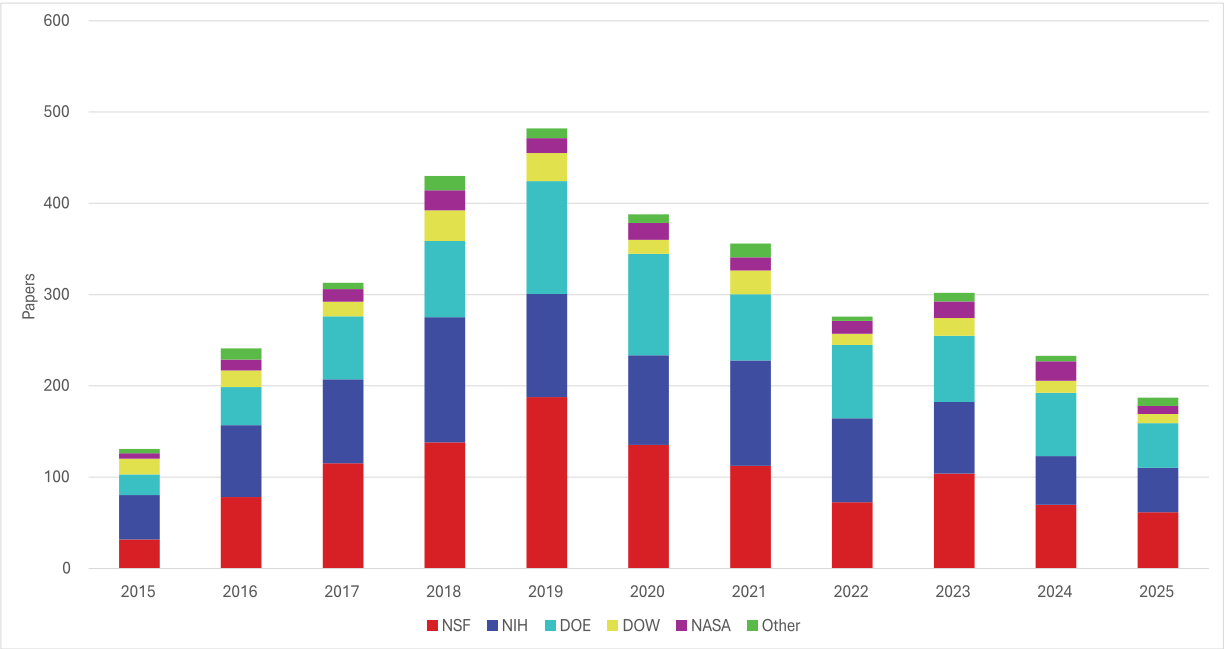
Kind regards,

Part 4: Beyond US Compliance Frameworks

The FTRP and MFTRP frameworks represent important steps forward for research security. However, it would be a mistake to read the declining number of compliance violations involving talent programs cited by funding agencies such as NIH as evidence that talent programs are no longer embedded in US research. They retain a significant presence in federally funded research because co-authors in the PRC who are supported by them still collaborate with US colleagues. Using Scopus, NSF SECURE Analytics identified 3,339 publications from 2015-2025 that explicitly cite funding from both a PRC talent program and a US federal funding agency (Figure 1). The number of papers in the dataset peaked at 482 in 2019 and fell to 187 through 2025. The US federal funding agencies with the highest fractional share in this dataset include the National Science Foundation (NSF), National Institutes of Health (NIH), Department of Energy (DOE), Department of War (DOW), and NASA, but several other agencies are represented as well.

NSF SECURE Analytics makes no claims about whether the US co-authors in these papers were simultaneously receiving US funding agency awards and talent program support because many of the papers do not unambiguously identify which co-author(s) participated in the talent program. We emphasize a different point. Tracking disclosure violations and conflicts of interest and commitment may reveal valuable insights about transparency and ethical *integrity* in US research, but these are inadequate indicators of the persistent *security* risks that talent programs pose with respect to the objectives that appear to matter to the GOC most: acquisition of valuable technology, data, and intellectual property, diversions to foreign military programs, enhanced competitiveness and self-reliance, and influence over US research. Misplaced reliance on integrity indicators could, in fact, lull the US research community into a premature and illusory estimation of what has been achieved concerning security. Several case studies illuminate this danger.

Figure 1 ▶ Papers supported by both US funding agencies and PRC talent programs (2015-2025)⁶⁰



Case Study: Zhang Xiaoshi (张晓世)

On October 23, 2025, a PRC company announced a domestically produced high-order harmonic generation (HHG) extreme ultra-violet (EUV) femtosecond laser for applications in scientific research and industry. The company, Hefei Haoyu Xinguang Technology Co., Ltd. (合肥皓宇芯光科技有限公司), known in English as Lumiverse, was founded in 2023 and is privately held. ZTE Capital and Chengwei Capital, which counts the endowments of several prominent US universities among its limited partners, invested in its 2024 seed round of financing. Lumiverse is part of an innovation cluster in the city of Hefei anchored by the University of Science and Technology of China (USTC), a leading research institution under the Chinese Academy of Sciences (CAS) that was added to the Bureau of Industry and Security's (BIS) Entity List in 2024 and the DOW's 1286 list in 2025.

Lumiverse's chief scientist, Zhang Xiaoshi, received his B.S. and M.S. degrees from USTC and a Ph.D. in physics from the University of Colorado, Boulder in 2007. Upon graduating, Zhang joined Kapteyn-Murnane Labs (KMLabs), a company founded by two of his dissertation advisors. There, his research contributed to the commercialization of the world's first tabletop low-power X-ray laser and the company's pioneering line of HHG EUV light sources.⁶¹ While at KMLabs, Zhang rose to the position of scientist and production manager, and served as principal investigator on several Small Business Innovation Research (SBIR) and NSF awards.⁶² He also co-authored dozens of publications in journals such as *Physical Review Letters*, *Nature Physics*, *Nature Photonics*, and *Optica*, and participated in the teams that won the 2013 CLEO/Laser Focus World Innovation Award and the 2016 Prism Award. He is listed as an inventor on at least one US patent in force.⁶³

Zhang left KMLabs and returned to the PRC in 2018 to participate in the Hundred Talents Plan, which prioritizes national strategic needs, especially overcoming chokepoints in the PRC's innovation stack to achieve technological self-reliance.⁶⁴ He is currently a professor at Yunnan University and leads its Southwest Advanced Light Source Laboratory. He is the principal investigator on several projects to develop EUV light sources funded by the National Natural Science Foundation of China.⁶⁵ In 2021, he was named principal investigator of a national key R&D program at the Chinese Academy of Sciences for "High-Power, High-Performance Extreme Ultraviolet Femtosecond Laser Technology" under the 14th Five-Year Plan. The project aimed to deliver a "'13.5 nm High-Order Harmonic Extreme Ultraviolet Light Source' for a renowned domestic company, and the Chinese Academy of Sciences Innovation Talent Program."⁶⁶

When that project came to fruition at Lumiverse in 2025, PRC media hailed the development as a breakthrough and noted that the company's core team included researchers from the PRC's Thousand Talents Plan.⁶⁷ Like the products Zhang had worked on at KMLabs, the Lumiverse apparatus is compact enough to fit on a tabletop and has key applications in areas such as semiconductor manufacturing, materials science, and quantum and biological imaging. Crucially, its focus on the 13.5nm domain makes it suitable for detecting defects in semiconductors produced by 14nm node lithography. Lumiverse has ambitions to compete in the global market for compact HHG EUV light sources, which is dominated by KMLabs. In the meantime, its products will advance the indigenization of the PRC's semiconductor supply chain, reduce the PRC's dependence on foreign equipment makers and lessen its exposure to foreign export controls.



Zhang joined the Hundred Talents Plan before the current FTRP and MFTRP compliance regime took effect. But his story raises an important point: the compliance regime may have its greatest purchase on scientists who wish to retain access to US research funding. For researchers in critical fields, the lure of a MFTRP and the resources and career advancement opportunities awaiting them in the PRC may outweigh sacrificing this privilege. As the PRC's competitiveness and generosity rise, the effectiveness of the FTRP and MFTRP compliance regime as a research security measure may wane. In the next cases, the compliance regime is tested in other ways.

Case Study: Nobel & Turing Laureate Laboratories

In 2017, the city of Shenzhen launched an initiative to create 10 Nobel Laureate Laboratories and then added a pair of laboratories led by Turing award winners under the same scheme (Table 2). Not to be left behind, in 2018 Shanghai recruited its own Nobel laureate, who serves as a member of the faculty and honorary dean of Fudan University's Multiscale Research Institute for Complex Systems (复杂体系多尺度研究院).⁶⁸ A far cry from the shadow labs that stirred research security circles only a few years ago, these facilities are bold and overt.

Scientists of this stature could go anywhere they choose, and they are voting with their feet. They are drawn to the PRC by the recognition, inspiration and possibilities it offers them, anchored by world-class human capital, infrastructure, and funding. The GOC cultivates them because they validate its achievements, sharpen local research agendas, lend their prestige and experience to local initiatives, and generate outsized network effects as magnets for other outstanding researchers from around the world.

The Shenzhen initiative is a talent program by another name. At a December 2018 event, the director of the city's Qianhai district government, where some of the labs are located, explained it as an effort to create a "Nobel Prize+" talent economy that would drive the development of industrial chains and business development, especially in the life sciences. Qianhai has adopted preferential tax, legal, and land use policies to position itself as a node into which global capital and R&D can flow from neighboring Hong Kong as part of an integrated manufacturing and innovation cluster.⁶⁹

As if to emphasize this point, prominent US scientists attending the event, including a pair of Nobel Prize winners, presented industrial development plans for the district in their fields of research.⁷⁰ The event also announced the establishment of the Shenzhen Qianhai Nobel Prize Scientists Technology Transfer and Transformation Co., Ltd. (深圳前海诺贝尔奖科学家技术转移转化有限公司) by an entrepreneur named Wang Hou (王侯). Wang described this company as solving "'the last kilometer' problem of technology transfer and transformation."⁷¹ He established it as a subsidiary of his World Laureates (Shanghai) Science Group Co. Ltd. (世界顶尖科学家(上海)科学集团有限公司), which lies at the center of one of the next case studies.

Whether the Shenzhen initiative qualifies as a FTRP or MFTRP for US compliance purposes will depend on the circumstances of each laboratory, the terms of the contracts with individual laureates, and whether the host institutions are subsequently added to restricted party lists. The regulations governing the Shenzhen initiative require the laureates to work in residence no less than 30 days per year, and many were reportedly involved in managing the labs hands-on. The regulations also include mandates to recruit no less than five full-time, high-level core team members from outside the city and to connect with and

stimulate local industry.⁷² Upon the expiration of the founding five-year grants, several of the labs have been reorganized or merged into provincial or municipal key laboratories. Collectively, they have advanced Shenzhen's rapid transformation into a global biotechnology hub. According to

recent Congressional testimony, "China is at least matching the United States in key elements of biotechnology's "strategic stack" (education, research, entrepreneurship, and manufacturing), is now better organized and supported by Beijing and beyond, and has tremendous momentum."⁷³

TABLE 2 ► SHENZHEN NOBEL & TURING LAUREATE LABORATORIES

Laureate	Lab Name (English)	Lab Name (Chinese)	Host Institution
Erwin Neher (Medicine, 1991)	Erwin Neher Laboratory of Neuroplasticity	内尔神经可塑性实验室	Shenzhen Institute of Advanced Technology, CAS
Aaron Ciechanover (Chemistry, 2004)	Ciechanover Institute of Precision and Regenerative Medicine	切哈诺沃精准和再生医学研究院	Chinese University of Hong Kong, Shenzhen
Robert Grubbs (Chemistry, 2005)	Shenzhen Grubbs Institute	深圳格拉布斯研究院	Southern University of Science and Technology
Barry Marshall (Medicine, 2005)	Marshall Biomedical Engineering Laboratory	马歇尔生物医学工程实验室	Shenzhen University
Joseph Sifakis (Turing, 2007)	Research Institute of Trustworthy Autonomous Systems (RITAS)	斯发基斯可信自主系统研究院	Southern University of Science and Technology
Andre Geim (Physics, 2010)	Shenzhen Geim Graphene Center	盖姆石墨烯中心	Tsinghua Shenzhen Graduate School
Brian Kobilka (Chemistry, 2012)	Kobilka Institute of Innovative Drug Discovery	科比尔卡创新药物开发研究院	Chinese University of Hong Kong, Shenzhen
Arieh Warshel (Chemistry, 2013)	Warshel Institute of Computational Biology	瓦谢尔计算生物研究院	Chinese University of Hong Kong, Shenzhen
Randy Schekman (Medicine, 2013)	Randy Schekman International Joint Laboratory of Medicine	兰迪·谢克曼国际联合医学实验室	Shenzhen Hospital of Southern Medical University
Shuji Nakamura (Physics, 2014)	Shuji Nakamura Laser Lighting Laboratory	中村修二 激光照明实验室	Shenzhen Zhongguang Industrial Technology Research Institute
Jean-Pierre Sauvage (Chemistry, 2016)	Sauvage Laboratory of Smart New Materials	索维奇智能新材料实验室	Harbin Institute of Technology, Shenzhen
David Patterson (Turing, 2017)	RISC-V International Open Source (RIOS) Laboratory	大卫·帕特森国际开源实验室	Tsinghua Shenzhen Graduate School

Case Studies: The Conference on International Exchange of Professionals & The World Laureates Forum

International conferences are also testing the boundaries of the current FTRP and MFTRP compliance frameworks. Through such events, the GOC champions global science and talent and ultimately burnishes its standing at home and abroad. They also accelerate the PRC's progress towards self-reliance by inviting the world to bring its best research to the PRC and disseminate it among local scholars, surfacing promising lines of inquiry to fast-track.

For a week in October 2025, the world's scientific elite flocked to Shanghai. Back-to-back meetings of the 23rd Conference on International Exchange of Professionals (CIEP, 中国国际人才交流大会) and the 8th World Laureates Forum (世界顶尖科学家论坛) met in the city and in dozens of thematic sub-forums across the country. The word "professional" in CIEP's official English-language name is an alternate translation of the Chinese for "talent," and the official conference theme in 2025, "Gathering Global Talents, Seeking Cooperation and Win-Win Results" makes the connection plain.⁷⁴

CIEP raises a thicket of research security considerations. More than 2,600 foreign experts from 110 countries, including the United States, attended the conference. It was hosted by the Shanghai city government and the State Administration of Foreign Experts Affairs (SAFEA), one of the principal agencies in charge of foreign talent recruitment in the PRC, famous for its oversight of the Thousand Talents Plan. More to the point, the conference was organized by Harbin Engineering University, a Seven Sons of National Defense school designated on the DOW's 1286 list.⁷⁵ Contingent on individual circumstances, this could create a research security compliance requirement for US attendees.

In addition, Harbin Institute of Technology, another Seven Sons school that is also designated on the DOW's 1286 list, held talent exchange events during the conference at its Weihai campus on "Smart Energy and Advanced Power," "Global Industrial Investment Opportunities and Practical Talent," "Frontier Physics and Future Technology," and "Smart Carbon Reduction Cities and Building Development."⁷⁶ Talent program compliance requirements may attach to these events as well. Also worth mentioning is that the China-Russia Mathematics Center at Peking University held events during the conference on international cooperation and exchange for "mathematical talents" followed by a Young Mathematicians Exchange Conference in Beijing.⁷⁷ The China-Russia Mathematics Center is operated jointly with Lomonosov Moscow State University, yet another entity designated on the DOW's 1286 list that could trigger a research security compliance requirement. The GOC has not sanctioned Russia nor have academic institutions in the PRC suspended cooperation with Russian counterparts following Russia's invasion of Ukraine.

Immediately after CIEP, the World Laureates Forum (WLF) met in Shanghai under the cumbersome banner of "Science in Future: Shanghai and the World." Around one hundred fifty scientists, including academicians from the Chinese Academy of Sciences and the Chinese Academy of Engineering and 25 international laureates of the Nobel, Turing, Wolf, and Fields prizes attended the 2025 WLF, where three American scientists received the World Laureates Association Prize, worth CNY10 million (approximately \$1.4 million). The prize is funded by a CNY500 million endowment established in 2021 by the Hongshan Charity Foundation (formerly an arm of US-based Sequoia Capital known then as the Sequoia China Charity Foundation).



The 2025 WLF included six sub-forums: a Young Scientists Forum; a Life Science Forum with a focus on AI, functional molecule discovery and precision medicine; an Intelligent Science Forum with a focus on AI and engineering for next generation industry; a Materials Science Forum with a focus on the energy transition and sustainable development; the Lingang Laboratory Symposium on Brain Diseases; and the Mobius Night, an informal, inter-disciplinary dialogue.⁷⁸ After the WLF, several of the foreign laureates began lecture tours at universities across the PRC that received prominent media coverage.

Nothing about these facts colors the event a FTRP or MFTRP. But dig a little deeper and the story grows more interesting. The WLF operates in the PRC under the auspices of the Shanghai branch of the China Association for Science and Technology (CAST), an organization that self-identifies as a bridge linking the Communist Party of China and the GOC to the country's science and technology community.⁷⁹ CAST operates the HOME Program (Help Our Motherland through Elite Intellectual Resources from Overseas Program 海外智力为国服务行动计划).⁸⁰ Established in 2004, the HOME program is a prime conduit for talent recruitment and technology transfer to the PRC from abroad.⁸¹

In addition, the WLF is sponsored annually by the World Laureates Association (WLA, 世界顶尖科学家协会), an organization founded in Hong Kong in 2017 by the aforementioned Wang Hou, founder of the Shenzhen Qianhai Nobel Prize Scientists Technology Transfer and Transformation Co., Ltd, with an executive committee that includes five American Nobel Laureates.⁸² Wang serves as Secretary-General of the WLA, which professes to uphold "Science and Technology for the Common Destiny of Mankind." This formulation mirrors the "Common Destiny for Mankind" slogan central to CCP General Secretary Xi Jinping's Thought on Diplomacy that was added to the PRC Constitution in 2018.⁸³

In 2021, the WLA announced the WLA Community, a planned innovation incubator and accelerator meant to link research and commercialization and industrialization, and the WLA International Joint Laboratories (WLA Labs), which aims to cultivate the next generation of scientific leaders in the PRC by training 200 young scientists over 5-10 years under the guidance of international laureates.⁸⁴ An eight-story WLA lab for artificial intelligence opened in Shanghai in 2024 led by Tsinghua University Professor Zhou Bowen, formerly chief scientist of the IBM Watson Group.⁸⁵

In February 2026, the WLA expanded its ambitions still further by opening an office in Dubai and joining hands with the World Governments Summit there for a conference of global scientific, political, and business leaders under the theme "Shaping Future Governments."⁸⁶ This step transformed the WLA from an instrument that advances the PRC's domestic technology transfer and industrial policy goals to one that also serves its soft power and foreign policy objectives abroad.

Part 5: The Market for Talent is Global

PRC foreign talent recruitment programs are changing labor market dynamics in ways that neutralize the security protections of the FTRP and MFTRP regime. Historically, most distinguished scientists who have shifted their careers to the PRC were born there or have ancestral ties to the country. As the PRC pours resources into science and technology and makes itself a more compelling place to pursue a scientific career, their number is rising.

But others, without such connections, are now joining them full-time. To be sure, many are late in



their careers but renowned and highly experienced at managing complex labs and teams. They include Nigel Slater, the former vice-chancellor of the University of Cambridge, who moved to Zhejiang University in Hangzhou to work on smart biomaterials; and Nobel Laureates Andre Geim, who moved from the University of Manchester to the University of Hong Kong; Hartmut Michel, who left the Max Planck Institute for Biophysics in Frankfurt for Jilin University; and Giorgio Parisi, who left Sapienza University in Rome for Beihang University, a DOW 1286 listed entity, where he has the rank of Global Top Talent (全球顶尖人才).⁸⁷ A growing number are in the prime of their research years, lured by the dynamism and brilliance they find, and the warm reception and generous resources that greet them.⁸⁸

These are not haphazard events. Research security practitioners should understand that the GOC is targeting disciplines and capabilities systematically; mathematics is a prime example. In 2019, a joint notice from the Ministry of Science and Technology, the Ministry of Education, the Chinese Academy of Sciences, and the NSFC called for strengthening applied mathematics research, including through cultivation of talent. The notice declares that “mathematics has become an indispensable pillar of science in aerospace, national defense, biomedicine, information technology, energy, oceanography, AI, and advanced manufacturing.”⁸⁹ A few months earlier, Shenzhen’s Southern University of Science and Technology (SUSTech) opened an International Center for Mathematics, which rode the enthusiasm accompanying the Nobel Laureate labs in the city. It recruited visiting professor Efim Zelmanov, a 1994 Fields Medalist, as director. By 2022, Zelmanov had retired from the University of California, San Diego and moved to SUSTech full-time.⁹⁰

A drumbeat of policies, investments, and ground-breaking followed the 2019 notice, and with it a stream of world-class overseas talent has moved to the PRC. For instance, in 2020, the Beijing government funded the construction of the Beijing Institute of Mathematical Sciences and Applications (BIMSA, 北京雁栖湖应用数学研究院) on a new campus outside the city. Shing-Tung Yau, a 1982 Fields Medalist and 1997 US National Medal of Science awardee, was named founding director. When Yau retired from Harvard University in 2022, he moved full-time to Tsinghua University where he also took up a post as the founding director of the eponymous Yau Mathematical Sciences Center. Caucher Birkar, a 2018 Fields Medalist, left the University of Cambridge in 2020, and Nicolai Reshetikhin left Berkeley in 2021. Like Yau, both also went to Tsinghua where they were met in 2024 by Kenji Fukaya, who left SUNY Stony Brook, and Vladimir Marković, who left the University of Oxford. In late 2025, Joshua Zahl left the University of British Columbia for Nankai University in Tianjin. In early 2026, Ngo Bao Chau, a 2010 Fields Medalist, left the University of Chicago for the University of Hong Kong. They are in turn attracting foreign graduate students and postdocs who might never have moved to the PRC in the past.

Since 2023, BIMSA has hosted the annual International Congress of Basic Science (ICBS, 国际基础科学大会), another PRC magnet for global scientific superstars. ICBS focuses on Mathematics, Physics, and Theoretical Computer and Information Science (TCIS) and is routinely anchored by Nobel, Turing, and Fields laureates from around the world, including the United States. In 2025, satellite conferences on AI and mathematics for the digital economy, particle physics, quantum theory, and gravity, geometry and operator algebras convened in the weeks surrounding the ICBS meeting.

ICBS, too, is led by Yau and sponsored by the Beijing municipal government, the PRC Ministry of Science and Technology, CAST, and the International Consortium of Chinese Mathematicians. In 2025, it issued Basic Science Lifetime Awards (BSLA) to ten eminent scientists, including five Americans, three of whom are Nobel Prize winners. In the same year, it also issued Frontiers of Science Awards (FSA) for 148 papers by over 600 authors. ICBS does not publish the prize money accompanying these awards but other sources report approximately \$1.2 million for the 2023 edition of the BLSA and \$25,000 for the 2025 edition of the FSA.⁹¹ According to ICBS, the 2026 FSA will include travel support of up to CNY25,000 but no cash award.

The BLSAs and FSAs come with strings attached. For instance, the ICBS website declares: “If you are an award winner, your prize money will be wired to your bank account that you have provided, after the conference, and after the terms of the award have been met.”⁹² The FSA terms and conditions for 2026 also provide for rescission of the award if its terms have not been fulfilled by the authors of the awarded paper in a timely manner. These terms include attendance at ICBS by at least one

author representing each winning paper, media interviews arranged by ICBS, an ICBS lecture on the winning paper, and submission of a summary of the significant results of the winning paper for publication in the ICBS Proceedings.⁹³

The ICBS award committees have strong international representation. Nevertheless, the geographical spread of the ICBS awards since their inception in 2023 is difficult to reconcile objectively with the global distribution of merit in the three eligible disciplines, not least of all because of the outstanding representation of PRC universities among the world’s most highly cited papers.⁹⁴ For instance, papers with co-authors from 38 countries have won FSAs, but co-authors with institutional affiliations in the US represent 47.2 percent of the entire winning pool (Figure 2). The country with the next highest share is the PRC at a distant 7.6 percent. Recipients with institutional affiliations in the US comprise 71 percent of the BLSA cohort, and the US is the only country hosting more than one BLSA winner (Figure 3).⁹⁵ The dominant share of scientists based in the US across the ICBS awards, the good will this engenders, and the relationships it builds may itself be a talent recruitment strategy.

Figure 2 ► ICBS Frontiers of Science Awards, fractional share of author affiliations by nation of employment and discipline (2023-25)⁹⁶

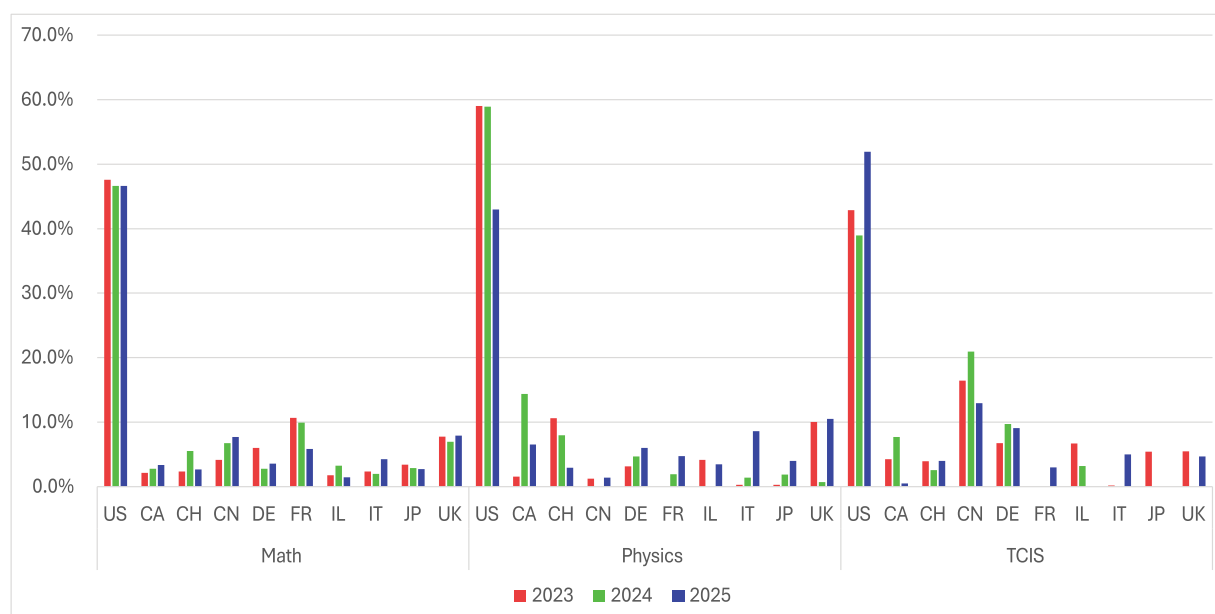
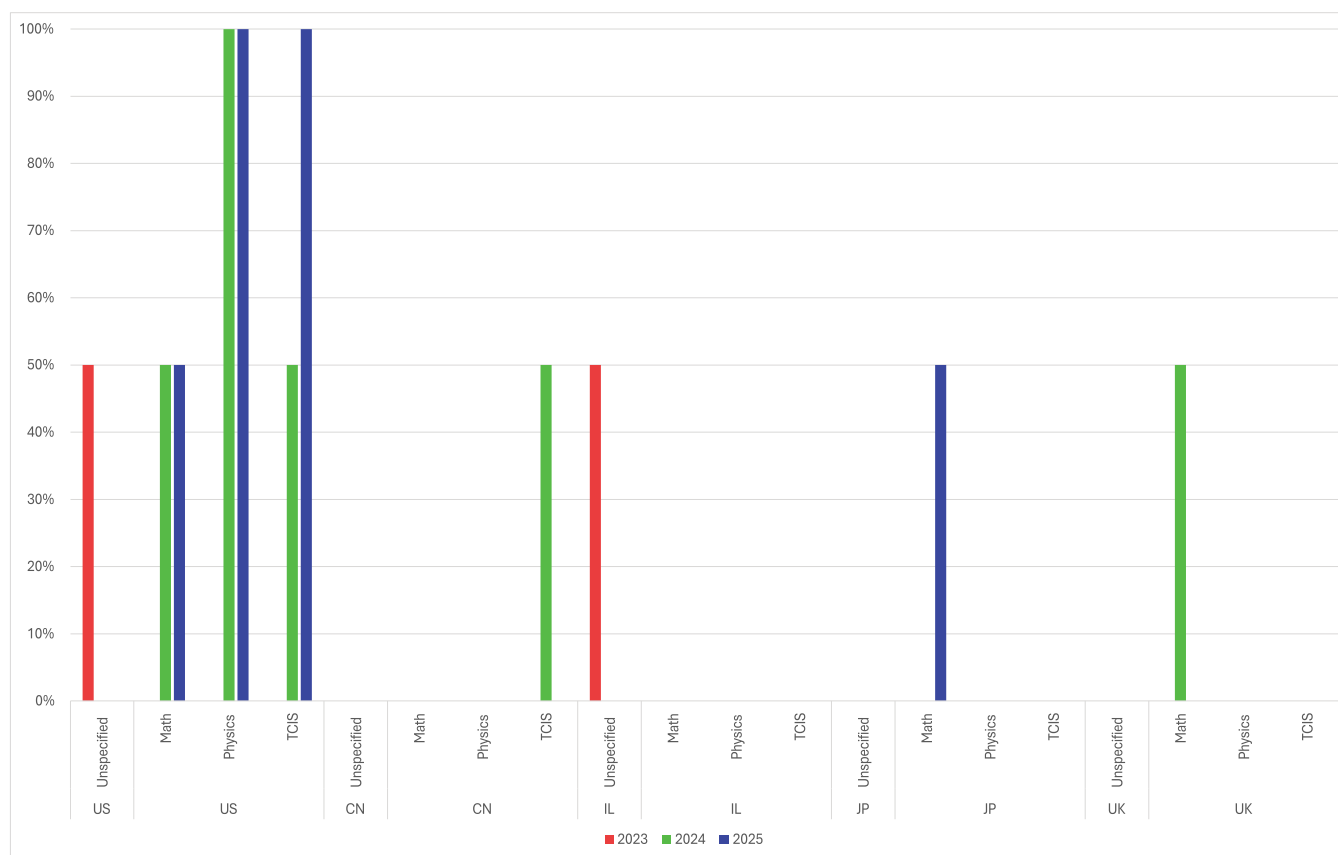


Figure 3 ▶ Share of all ICBS Basic Science Lifetime Awards, by field and nation of employment (2023-25)



Stripped of their context, the Nobel and Turing Laureate Labs, CIEP, the WLF, and ICBS could be mistaken simply as platforms for the nourishment and celebration of excellent science. But they are much more. They represent key talent nodes in a multi-pronged strategy to shift the global center of gravity in science and technology in the PRC's favor. This includes a new architecture of professional honors that rides in the slipstream of established international awards, the cultivation of influential disciplinary journals, lavish spending on state-of-the-art facilities and big science and computing infrastructure, predictable and rapidly growing research funding, and conscious integration with advanced engineering and manufacturing. These conditions endow the PRC with a strong buyer's position in the global market for talent, and the transfer of careers, labs, students, and research that they are enabling pose security challenges that

the current FTRP and MTRP compliance regime cannot answer.

The case of Charles Lieber, former chair of Harvard University's Department of Chemistry and Chemical Biology, drives this point home. In 2021, Lieber was convicted in US federal court of tax offenses and making false statements to investigators about his participation in the Thousand Talents Plan.⁹⁷ He served two days in prison and six months under house arrest and was fined \$50,000 and ordered to pay \$33,600 in restitution. In 2025, Lieber moved to the PRC, where he was appointed chair professor at Tsinghua University's Institute of Materials Research and founding director of the Institute for Brain Research, Advanced Interfaces and Neurotechnologies (i-BRAIN, 智脑中心).⁹⁸ He brought at least one junior colleague with him. At i-BRAIN, Lieber will reportedly continue his research into



brain computer interfaces (BCI), which the 15th FYP prioritizes as a future industry backed by policy and funding support from various components of the GOC.⁹⁹ i-BRAIN is part of the aforementioned regional biotechnology cluster around Shenzhen and boasts shared access to a non-human primate facility with 2,000 cages and its own nanofabrication lab that features an ASML deep ultraviolet lithography machine for manufacturing semiconductors.¹⁰⁰ It is a part of the Shenzhen Medical Academy of Research and Translation (SMART, 深圳医学科学院), whose founding director, Yan Ning (颜宁), returned to the PRC from Princeton University in 2022. The Shenzhen municipal government's 2026 budget just for SMART is \$153 million.¹⁰¹

Conclusion

It is possible to win at compliance but lose at research security. To avoid that outcome, the US research community should think holistically about the challenges posed by the GOC's foreign talent recruitment programs, even those that may not fit within the formal parameters of the US government's FTRP and MFTRP regime. Stakeholders in every corner of the research ecosystem have roles to play.

Research security practitioners and researchers should cultivate open, trusted relationships with one another, from those just embarking on careers to the most senior. These individuals can be sentinels, detecting early how talent recruitment programs are evolving. Train them not only to fulfill existing mandates, but also about what to look out for, how to think about potential solicitations, and what to do in the event they or their colleagues are contacted directly by recruiters. Encourage them to

socialize awareness among peers about the special consideration that talent programs may warrant and the resources available to guide informed deliberation. Approaching this as compliance facilitation rather than enforcement can ease the interactions.

Talent recruitment programs may appear under different guises and in many shapes and sizes, and they may evolve to elude detection or circumvent mitigation measures. Practitioners should continually hone their tradecraft and stay nimble, using the best available tools to pursue due diligence on relevant events, entities, and professional honors. They should cultivate channels to train one another and to share real-time intelligence sourced from within the research community about new or revised talent programs, evolving outreach and recruitment practices, and information valuable for decision support. This will help ensure timely dissemination that is both concrete and responsive to the use cases practitioners encounter and will avoid the complications that come from dependence on sensitive or classified streams of government intelligence. Steps should be taken to protect the confidentiality, privacy, and safety of contributors, especially when the information relates to countries of concern. Otherwise, these channels may dry up.

But these solutions are also incomplete. The US research enterprise cannot regulate its way out of the security risks posed by foreign talent recruitment programs, and care must be taken to avoid cutting US researchers off even from traditional partners who may judge the burdens or sacrifices required to work with Americans too great. The competition for talent transpires in a global marketplace where labor mobility within countries and among them is high. Recognizing this, a 2024 National Academies of Science, Engineering, and Medicine study recommended that the US government adopt a



foreign talent recruitment strategy of its own.¹⁰²

A more comprehensive solution would look beyond just attracting foreign talent to better cultivating and holding on to talent that is already in the US.

A healthy and competitively resourced research ecosystem will recommend itself, while one under stress will prove increasingly difficult to secure.

Like any employees, gifted researchers must feel satisfied or they will move elsewhere. Compelling alternatives to the benefits promised by foreign talent recruitment programs must be cultivated. The availability and predictability of funding, the physical infrastructure that supports research, the vibrancy of intellectual communities, opportunities for employment and career advancement, access to rapid prototyping and manufacturing, and the surrounding social and political climate all bear on retention and the career choices researchers make.

As this advisory makes plain, the PRC is expanding its appetite and is no longer content to recruit solely from the ranks of the ethnic Chinese diaspora. It has studied the US FRTTP and MFTRTP compliance regime and adapted.

American policymakers, funding agencies, and research security practitioners should track these developments and move with resolve and agility to maintain the effectiveness of their countermeasures. And in the final analysis, they must ensure that researchers see the US as the best, most attractive place to practice science. Otherwise resisting the adverse effects of PRC foreign talent recruitment programs may grow more difficult and increasing numbers of researchers may answer their call to the detriment of US innovation, competitiveness, and security.

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96. ICBS awards FSAs to papers not people. Papers with co-authors who have institutional affiliations in thirty-eight countries have won FSAs. NSF SECURE Analytics built a list of the co-authors of the awarded papers and the institutional affiliations acknowledged in the papers. Each co-author in a paper was assigned an equal fractional share (e.g. 25% each for a paper with four co-authors). Some co-authors acknowledged affiliations at more than one institution, which split their share evenly among those institutions and the countries hosting them. For example, for a co-author acknowledging affiliations with two institutions in the United States and one institution in France, 67 percent of that author's share would be assigned to the United States, and 33 percent would be assigned to France. Figure 2 displays the ten countries with the highest cumulative shares across all FSA disciplines and years beginning with the United States and followed by Canada, Switzerland, China, Germany, France, Israel, Italy, Japan, and the United Kingdom in the alphabetical order of their two-letter country code.
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