

# Hunting the phoenix

The Chinese Communist Party's global search for technology and talent

Alex Joske



## About the authors

**Alex Joske** is an Analyst working with the International Cyber Policy Centre.

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## What's the problem?

The Chinese Communist Party (CCP) uses talent-recruitment programs to gain technology from abroad through illegal or non-transparent means. According to official statistics, China's talent-recruitment programs drew in almost 60,000 overseas professionals between 2008 and 2016. These efforts lack transparency; are widely associated with misconduct, intellectual property theft or espionage; contribute to the People's Liberation Army's modernisation; and facilitate human rights abuses. They form a core part of the CCP's efforts to build its own power by leveraging foreign technology and expertise. Over the long term, China's recruitment of overseas talent could shift the balance of power between it and countries such as the US. Talent recruitment isn't inherently problematic, but the scale, organisation and level of misconduct associated with CCP talent-recruitment programs sets them apart from efforts by other countries. These concerns underline the need for governments to do more to recognise and respond to CCP talent-recruitment activities.

The mechanisms of CCP talent recruitment are poorly understood. They're much broader than the Thousand Talents Plan—the best known among more than 200 CCP talent-recruitment programs. Domestically, they involve creating favourable conditions for overseas scientists, regardless of ethnicity, to work in China.<sup>1</sup> Those efforts are sometimes described by official sources as 'building nests to attract phoenixes'.<sup>2</sup>

This report focuses on overseas talent-recruitment operations—how the CCP goes abroad to hunt or lure phoenixes. It studies, for the first time, 600 'overseas talent-recruitment stations' that recruit and gather information on scientists. Overseas organisations, often linked to the CCP's united front system and overlapping with its political influence efforts, are paid to run most of the stations.<sup>3</sup>

## What's the solution?

Responses to CCP talent-recruitment programs should increase awareness and the transparency of the programs.

Governments should coordinate with like-minded partners, study CCP talent-recruitment activity, increase transparency on external funding in universities and establish research integrity offices that monitor such activities. They should introduce greater funding to support the retention of talent and technology.

Security agencies should investigate illegal behaviour tied to foreign talent-recruitment activity.

Funding agencies should require grant recipients to fully disclose any participation in foreign talent-recruitment programs, investigate potential grant fraud and ensure compliance with funding agreements.

Research institutions should audit the extent of staff participation in foreign talent-recruitment programs. They should act on cases of misconduct, including undeclared external commitments, grant fraud and violations of intellectual property policies. They should examine and update policies as necessary. University staff should be briefed on foreign talent-recruitment programs and disclosure requirements.

# Introduction

The party and the state respect the choices of those studying abroad. If you choose to return to China to work, we will open our arms to warmly welcome you. If you stay abroad, we will support you serving the country through various means.

—Xi Jinping, 2013 speech at the 100th anniversary of the founding of the Western Returned Scholars Association, which is run by the United Front Work Department.<sup>4</sup>

The CCP views technological development as fundamental to its ambitions. Its goal isn't to achieve parity with other countries, but dominance and primacy. In 2018, General Secretary Xi Jinping urged the country's scientists and engineers to 'actively seize the commanding heights of technological competition and future development'.<sup>5</sup> The Made in China 2025 industrial plan drew attention to the party's long-held aspiration for self-sufficiency and indigenous innovation in core industries, in contrast to the more open and collaborative approach to science practised by democratic nations.<sup>6</sup>

The CCP treats talent recruitment as a form of technology transfer.<sup>7</sup> Its efforts to influence and attract professionals are active globally and cover all developed nations. The Chinese Government claims that its talent-recruitment programs recruited as many as 60,000 overseas scientists and entrepreneurs between 2008 and 2016.<sup>8</sup> The Chinese Government runs more than 200 talent-recruitment programs, of which the Thousand Talents Plan is only one (see Appendix 1).

The US is the main country targeted by these efforts and has been described by Chinese state media as 'the largest "treasure trove" of technological talent'.<sup>9</sup> In addition to the US, it's likely that more than a thousand individuals have been recruited from each of the UK, Germany, Singapore, Canada, Japan, France and Australia since 2008.<sup>10</sup>

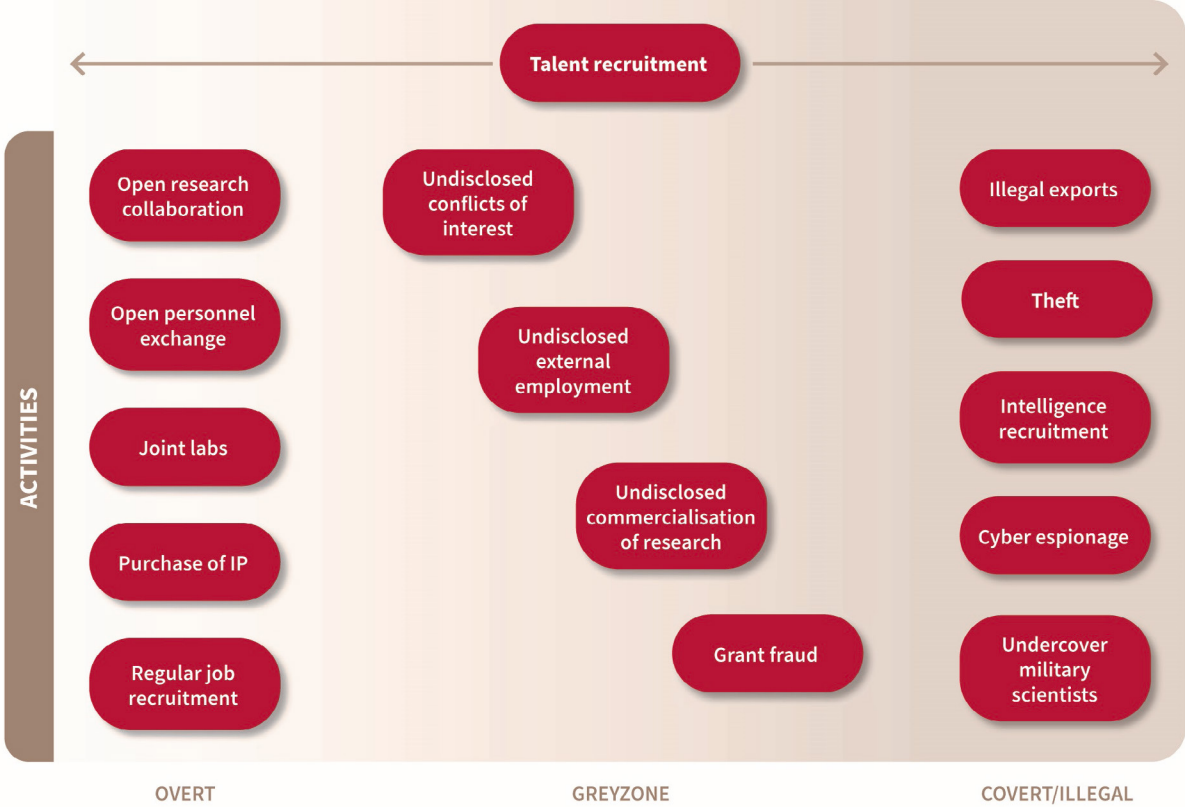
Future ASPI International Cyber Policy Centre research will detail Chinese Government talent-recruitment efforts in Australia. Past reports have identified a handful of Australian participants in China's talent-recruitment programs, including senior and well-funded scientists, and around a dozen CCP-linked organisations promoting talent-recruitment work and technology transfer to China.<sup>11</sup> However, the scale of those activities is far greater than has been appreciated in Australia.

China's prodigious recruitment of overseas scientists will be key to its ambition to dominate future technologies and modernise its military. Participants in talent-recruitment programs also appear to be disproportionately represented among overseas scientists collaborating with the Chinese military. Many recruits work on dual-use technologies at Chinese institutions that are closely linked to the People's Liberation Army.

These activities often exploit the high-trust and open scientific communities of developed countries. In 2015, Xi Jinping told a gathering of overseas Chinese scholars that the party would 'support you serving the country through various means'.<sup>12</sup> As detailed in Bill Hannas, James Mulvenon and Anna Puglisi's 2013 book *Chinese industrial espionage*, those 'various means' have often included theft, espionage, fraud and dishonesty.<sup>13</sup> The CCP hasn't attempted to limit those behaviours. In fact, cases of misconduct associated with talent programs have ballooned in recent years. The secrecy of the programs has only been increasing.

The CCPs' talent-recruitment efforts cover a spectrum of activity, from legal and overt activity to illegal and covert work (Figure 1). Like other countries, China often recruits scientists through fair means and standard recruitment practices. It gains technology and expertise from abroad through accepted channels such as research collaboration, joint laboratories and overseas training. However, overt forms of exchange may disguise misconduct and illegal activity. Collaboration and joint laboratories can be used to hide undeclared conflicts of commitment, and recruitment programs can encourage misconduct. Participants in talent-recruitment programs may also be obliged to influence engagement between their home institution and China. The Chinese Government appears to have rewarded some scientists caught stealing technology through talent-recruitment programs. In some cases, Chinese intelligence officers may have been involved in talent recruitment. Illustrating the covert side of talent recruitment, this report discusses cases of espionage or misconduct associated with talent recruitment and how the Chinese military benefits from it (Appendix 2).

**Figure 1: The spectrum of the CCP's technology transfer efforts**



Talent-recruitment work has been emphasised by China's central government since the 1980s and has greatly expanded during the past two decades.<sup>14</sup> In 2003, the CCP established central bodies to oversee talent development, including the Central Coordinating Group on Talent Work (中央人才工作协调小组), which is administered by the Central Committee's Organisation Department and includes representation from roughly two dozen agencies.<sup>15</sup> In 2008, the party established the national Overseas High-level Talent Recruitment Work Group (海外高层次人才引进工作小组) to oversee the Thousand Talents Plan (see box).<sup>16</sup> Local governments around China also regularly hold recruitment events at which overseas scientists are signed up to talent-recruitment schemes and funding initiatives.<sup>17</sup> This demonstrates how talent-recruitment efforts are a high priority for the CCP, transcending any particular bureaucracy and carried out from the centre down to county governments.



## The Overseas High-level Talent Recruitment Work Group

The Overseas High-level Talent Recruitment Work Group was established in 2008 to oversee the implementation of the Thousand Talents Plan. It's administered by the Central Committee's Organisation Department, which plays a coordinating role in talent recruitment work carried out by government and party agencies. Its members include the Ministry of Human Resources and Social Security, the Ministry of Education, the Ministry of Science and Technology, the People's Bank of China, the State-owned Assets Supervision and Administration Commission, the Chinese Academy of Sciences, the United Front Work Department (UFWD) of the Central Committee of the CCP, the National Development and Reform Commission, the Ministry of Industry and Information Technology, the Ministry of Public Security, the Ministry of Finance, the Overseas Chinese Affairs Office (now part of the UFWD), the Chinese Academy of Engineering, the National Natural Science Foundation, the State Administration of Foreign Experts Affairs (now part of the Ministry of Science and Technology), the Communist Youth League of China and the China Association for Science and Technology.<sup>18</sup>

To illustrate the international reach of CCP talent recruitment, the ASPI International Cyber Policy Centre (ICPC) has created an original database of 600 overseas talent-recruitment stations. The operation of the stations is contracted out to organisations or individuals who are paid to recruit overseas scientists. They might not have a clear physical presence or might be co-located with the organisations contracted to run them (see box). This is a growing part of the CCP's talent-recruitment infrastructure—providing on-the-ground support to the CCP's efforts to identify and recruit experts from abroad—but it has never been analysed in detail before.

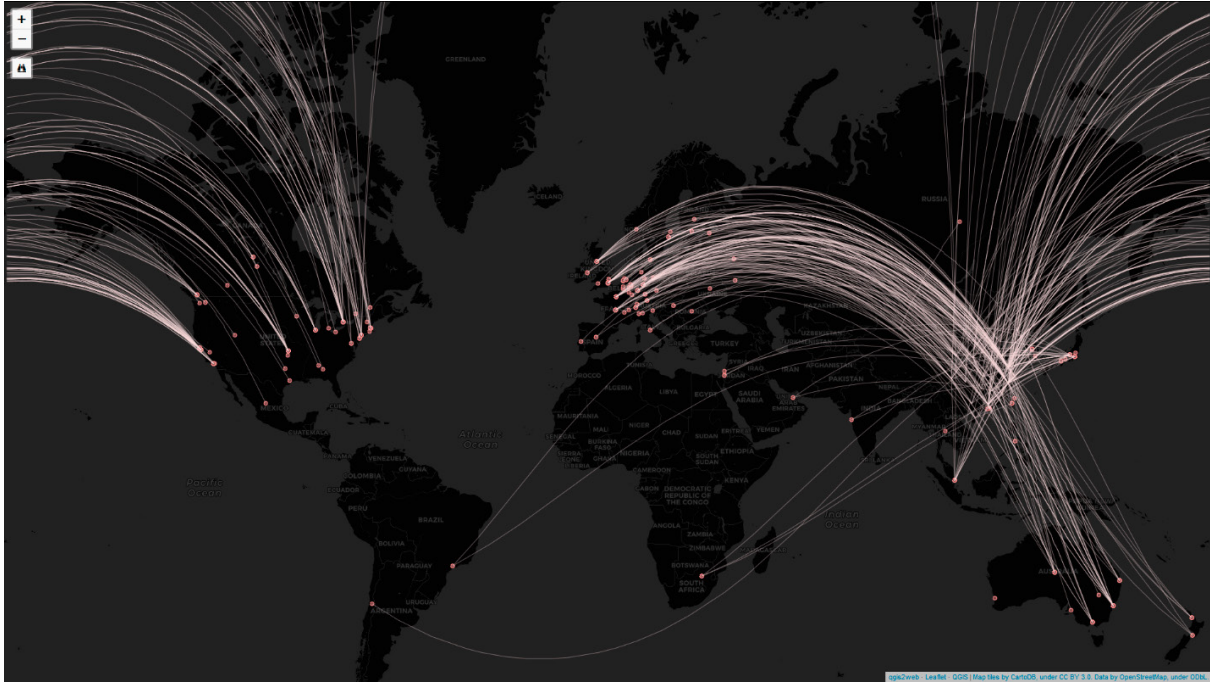
### Features of overseas talent-recruitment stations

- Overseas organisations or individuals contracted by the CCP to carry out talent-recruitment work
- Often run by overseas united front groups
- Tasked to collect information on and recruit overseas scientists
- Promote scientific collaboration and exchanges with China
- Organise trips by overseas scientists to China
- Present across the developed world
- May receive instructions to target individuals with access to particular technologies
- Paid up to A\$30,000 annually, plus bonus payments for each successful recruitment

The database was compiled using open-source online information from Chinese-language websites. Those sources included Chinese Government websites or media pages announcing the establishment of overseas recruitment stations and websites affiliated with overseas organisations running recruitment stations. We carried out keyword searches using various Chinese terms for talent-recruitment stations to identify their presence across the globe. An interactive version of the map of stations is in the online version of this report (Figure 2).



Figure 2: Overseas recruitment stations and their links back to China



Using examples and case studies of stations from around the world, this report also reveals the role of the united front system in talent-recruitment work. The united front system is a network of CCP-backed agencies and organisations working to expand the party's United Front—a coalition of groups and individuals working towards the party's goals. Many of those agencies and organisations run overseas recruitment stations. As detailed in the ASPI report *The party speaks for you: foreign interference and the Chinese Communist Party*, the system is widely known for its involvement in political influence work, but its contributions to technology transfer have attracted little attention.

# Why China's talent-recruitment programs raise concerns

China's talent-recruitment programs are unlike efforts by Western governments to attract scientific talent. As two scholars involved in advising the CCP on talent recruitment wrote in 2013, 'The Chinese government has been the most assertive government in the world in introducing policies targeted at triggering a reverse brain drain.'<sup>19</sup> The flow of talent from China is still largely in the direction of the US.<sup>20</sup> However, research from the Center for Security and Emerging Technology found that the proportion of Chinese STEM PhD graduates of US universities intending to stay in the US has declined over the past two decades.<sup>21</sup> In May 2020, the US Government announced new restrictions on visas for scientists linked to the Chinese military.<sup>22</sup>

The widespread misconduct associated with CCP talent-recruitment programs sets them apart from efforts by other nations. For example, an investigation by the Texas A&M University system found more than 100 staff linked to China's talent programs, but only five disclosed it despite employees being required to do so.<sup>23</sup> That level of misconduct hasn't been reported in other countries' talent-recruitment efforts. The absence of any serious attempt by the Chinese Government or its universities to discourage theft as part of its recruitment programs amounts to a tacit endorsement of the programs' use to facilitate espionage, misconduct and non-transparent technology transfers.

The extent of misconduct by selectees suggests that this is enabled or encouraged by agencies overseeing the programs. Agencies at the centre of China's talent recruitment efforts have themselves been directly involved in illegal activity. For example, an official from China's State Administration of Foreign Experts Affairs was involved in stealing US missile technology through the recruitment of a US scientist (see Noshir Gowadia case in Appendix 2).<sup>24</sup>

Talent recruitment programs have been used to incentivise and reward economic espionage. For example, in 2013, Zhao Huajun (赵华军), was imprisoned in the US after stealing vials of a cancer research compound, which he allegedly used to apply for sponsorship there.<sup>25</sup> A month after Zhao was released from prison, he was recruited by the Zhejiang Chinese Medicine University through the Qianjiang Scholars (钱江学者) program.<sup>26</sup> In another case, a Coca-Cola scientist allegedly conspired with a Chinese company to secure talent-recruitment program funding on the basis of stolen trade secrets.<sup>27</sup>

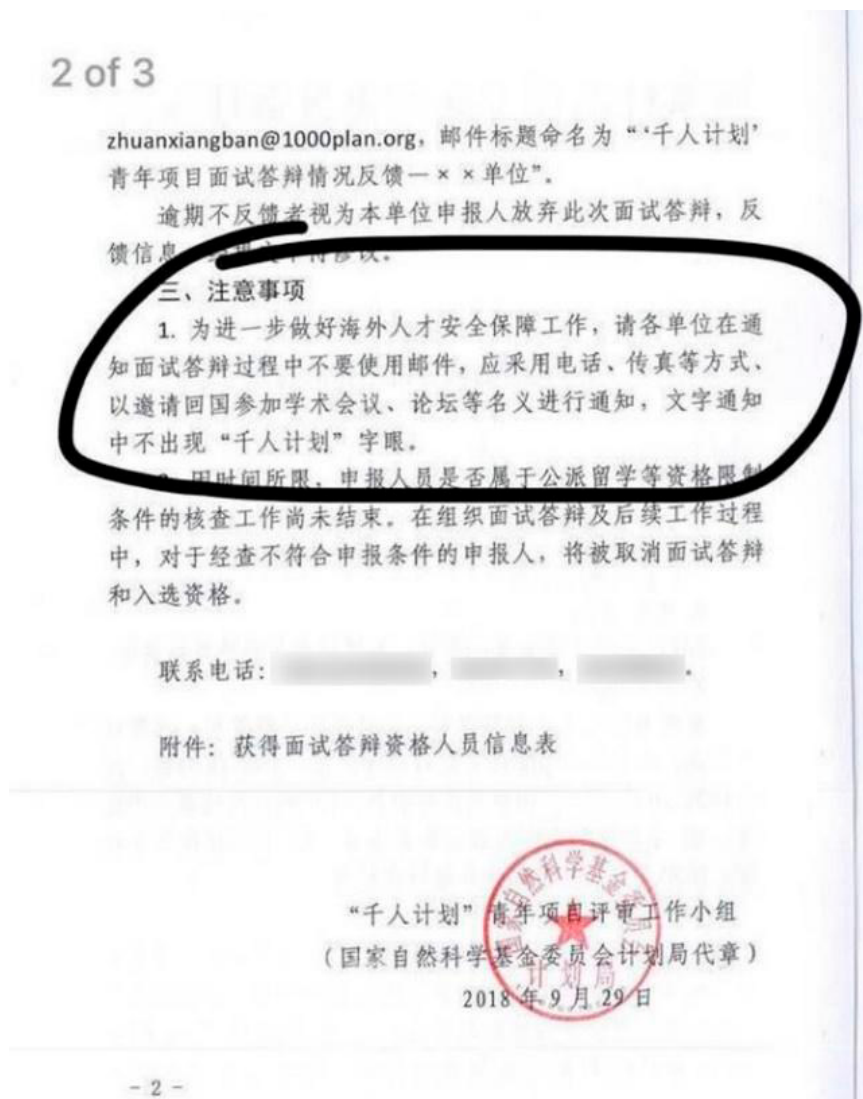
Talent-recruitment programs are also tied to research commercialisation. Applicants to the Thousand Talents Plan have the option to join as 'entrepreneurs' rather than as scientists, supporting companies they have established in China.<sup>28</sup> The Thousand Talents Plan is supported by the Thousand Talents Plan Venture Capital Center (千人计划创投中心), which runs competitions to pair participants with start-up funding.<sup>29</sup>

Commercial activity by talent-recruitment program participants isn't always disclosed, which often breaches university policies on intellectual property and commercialisation. One recruit from an Australian university set up a laboratory and an artificial intelligence (AI) company in China that later received funding linked to the Thousand Talents Plan Venture Capital Center, but reportedly didn't

disclose that to his Australian university, against existing university policies. The company later supplied surveillance technology to authorities in Xinjiang.<sup>30</sup>

US investigations of participants in talent-recruitment programs have led to an increase in the programs' secrecy, rather than reforms to make them more transparent and accountable. In September 2018, the Chinese Government began removing references to the Thousand Talents Plan from the internet and ordering organisations to use more covert methods of recruitment.<sup>31</sup> A leaked directive told those carrying out recruitment work for the plan to not use email when inviting potential recruits to China for interviews, and instead make contact by phone or fax under the guise of inviting them to a conference (Figure 3). 'Written notices should not contain the words "Thousand Talents Plan"', the document states. In 2018, the official website of the Thousand Talents Plan removed all news articles about the program, before going offline in 2020.<sup>32</sup>

**Figure 3: A leaked notice from September 2018 ordering organisations to use more covert methods of recruiting Thousand Talents Plan participants**



Highlighted text: 'In order to further improve work guaranteeing the safety of overseas talent, work units should not use emails, and instead use phone or fax, when carrying out the interview process. [Candidates] should be notified under the name of inviting them to return to China to participate in an academic conference or forum. Written notices should not include the words "Thousand Talents Plan".'

Source: '被美國盯上 傳中國引進人才不再提千人計畫' [Targeted by the US, it's rumoured that China will no longer mention the 1,000 Talent Plan], CNA.com, 5 October 2018, [online](#).

CCP technology-transfer efforts are often flexible and encourage individuals to find ways to serve from overseas. Participants in the Thousand Talents Plan, for example, have the option to enter a ‘short-term’ version of the program that requires them to spend only two months in China each year.<sup>33</sup> Some selectees establish joint laboratories between their home institutions and their Chinese employers, which could be a way to disguise conflicts of commitment where they have agreed to spend time working for both institutions.<sup>34</sup> ‘This enables them to maintain multiple appointments at once, which may not be fully disclosed. This may mean that they’re effectively using time, resources and facilities paid for by their home institutions to benefit Chinese institutions.’

Without residing in China, scientists can support collaboration with Chinese institutions, receive visiting Chinese scholars and students and align their research with China’s priorities. Steven X Ding (丁先春), a professor at the University of Duisburg in Germany who has also been affiliated with Tianjin University, was quoted describing this mentality when he worked as vice president of the University of Applied Science Lausitz:<sup>35</sup>

I manage scientific research at the university, which has more than 100 projects supervised by me—this is a ‘group advantage’. I can serve as a bridge between China and Germany for technological exchange ... and I can make greater contributions than if I returned to China on my own. Foreign countries aren’t just advanced in their technologies, but also their management is more outstanding. Being in Germany I can introduce advanced technologies to China, assist communication, exchange and cooperation, and play a role as a window and a bridge [between China and Germany].<sup>36</sup>

The CCP’s talent-recruitment activities are also notable for their strategic implications. The deepening of ‘military–civil fusion’ (a CCP policy of leveraging the civilian sector to maximise military power) means that China’s research institutes and universities are increasingly involved in classified defence research, including the development of nuclear weapons.<sup>37</sup> Chinese companies and universities are also working directly with public security agencies to support the oppression and surveillance of minorities through their development and production of surveillance technologies.<sup>38</sup> One Australian participant in the Thousand Talents Plan spoke of his duty to contribute to China’s national defence development.<sup>39</sup> Participants in talent-recruitment programs also appear to be disproportionately represented among overseas scientists collaborating with the Chinese military.<sup>40</sup> Recruitment work by the People’s Liberation Army and state-owned defence conglomerates is described later in this report.

These structures behind talent-recruitment activity and their links to national initiatives show how it’s backed by the party’s leaders and high-level agencies and has clear objectives. This contradicts the theory that China employs a ‘thousand grains of sand’ approach to intelligence gathering or economic espionage, relying on uncoordinated waves of amateur ethnic-Chinese collectors to Hoover up technology.<sup>41</sup> Indeed, what may be one of the most egregious charges of misconduct related to a talent-recruitment program involves Harvard Professor Charles Lieber, a nanotechnologist with no Chinese heritage, who was arrested in 2020 for allegedly failing to disclose a US\$50,000 monthly salary he received from a Chinese university as part of the Thousand Talents Plan.<sup>42</sup> As shown by the case of Zheng Xiaoqing, who allegedly stole jet turbine technology from GE Aviation while joining the Thousand Talents Plan as part of a Jiangsu State Security Department operation, talent recruitment can at times involve professional intelligence officers (see Appendix 2).

In 2012, Peter Mattis, an expert on CCP intelligence activity, wrote that ‘The “grains of sand” concept focuses analytic attention on the [counter-intelligence] risk individuals pose rather than on government intelligence services.’<sup>43</sup> In the case of talent-recruitment programs, interpreting them through the lens of a ‘grains of sand’ model would place greater emphasis on individuals involved in the programs while neglecting the mechanisms of talent recruitment activity used by the CCP. Talent-recruitment efforts are carried out with heavy involvement from the united front system and dedicated agencies such as the Ministry of Science and Technology’s State Administration of Foreign Experts Affairs.<sup>44</sup> It isn’t an ethnic program with individual actors at its core—it’s a CCP program leveraging incentives as well as organised recruitment activity—yet it’s often framed by the party as serving the country’s ethno-nationalist rejuvenation.<sup>45</sup>

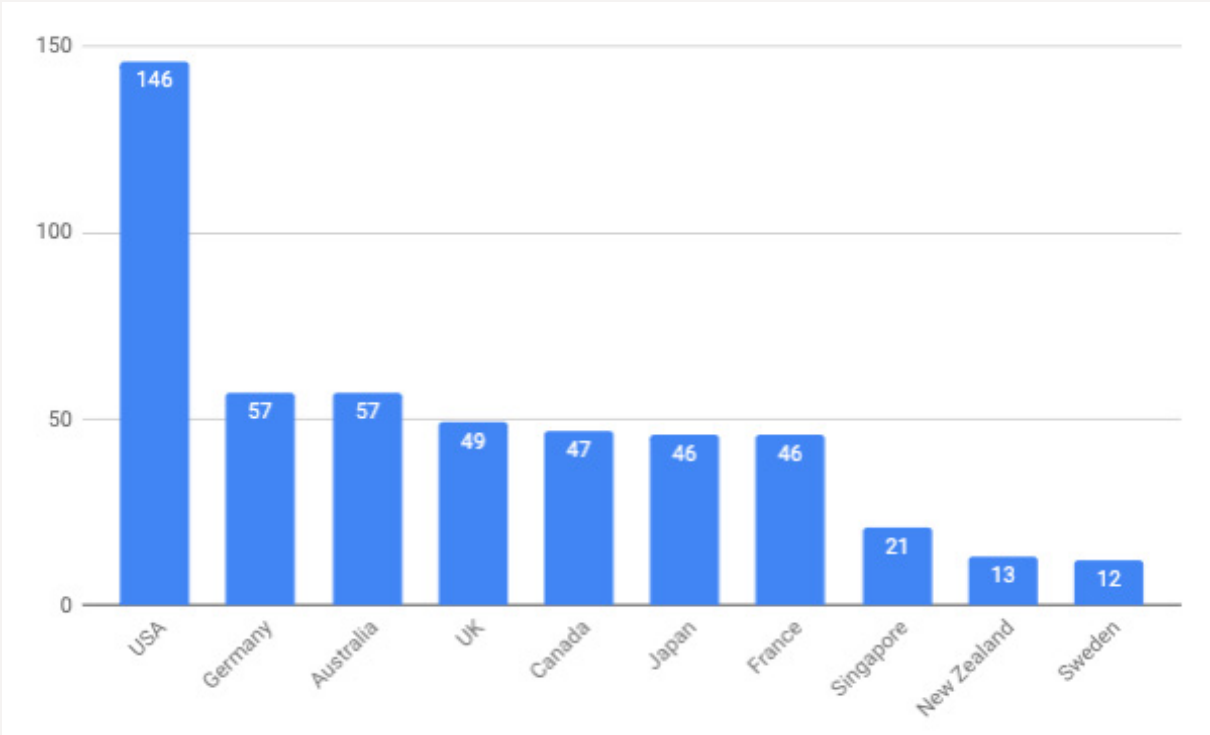
Recognising these features of CCP technology-transfer activity—such as its central and strategic guidance, implementation across various levels of the Chinese Government, high-rate of misconduct and reliance on overseas recruitment mechanisms—should be fundamental to any responses to the activity.<sup>46</sup> Poorly executed, and sometimes misguided, attempts at investigating and prosecuting suspected cases of industrial espionage have helped build an image of both the problem and enforcement actions as being driven by racial factors rather than state direction.<sup>47</sup>

# Talent-recruitment stations

Chinese Government and Party agencies from the national to the district level have established hundreds of ‘overseas talent recruitment workstations’ in countries with high-quality talent, cutting-edge industries and advanced technology.<sup>48</sup> The stations are established in alignment with central guidance on talent-recruitment work and also adapt to the needs of the various Chinese Government organs establishing them. They’re run by overseas organisations, such as community associations, and are a key part of the CCP’s little-understood talent-recruitment infrastructure. The stations work on behalf of the Chinese Government to spot and pursue talent abroad. Their importance is reflected in the fact that research for this report has uncovered 600 stations spread across technologically advanced countries (Figure 4).<sup>49</sup> The increasingly covert nature of talent-recruitment efforts means on-the-ground measures such as talent-recruitment stations should become more important.

The highest number of stations (146) was found in the United States. However, Germany, Australia, the United Kingdom, Canada, Japan, France and Singapore also each had many stations. This underscores the global reach of China’s talent-recruitment efforts and the high level of recruitment activity in those countries.

**Figure 4: The top 10 countries hosting identified talent-recruitment stations**



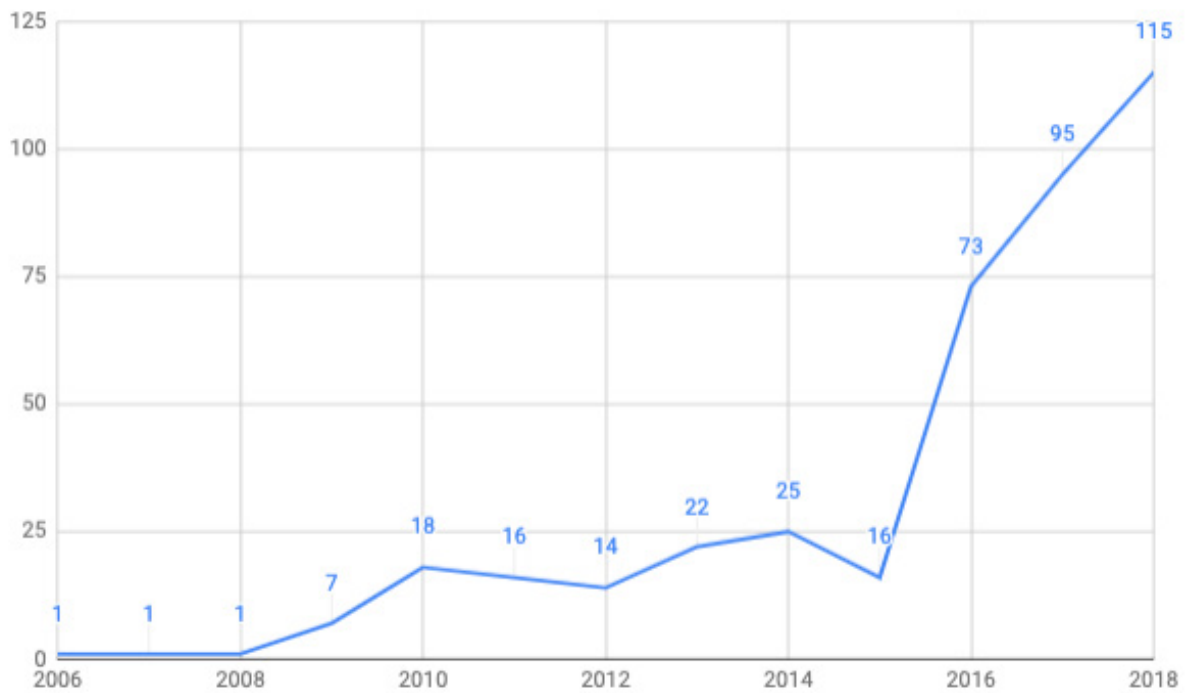
The stations often don’t have dedicated offices or staff. Instead, they’re contracted to local professional, community, student and business organisations, such as the Federation of Chinese Professionals in Europe.<sup>50</sup> Such organisations already have established links inside Chinese communities and receive payments in return for spotting and recruiting talent, promoting research collaboration and hosting official delegations from China. The organisations are often linked to the



CCP's united front system and may be involved in mobilising their members to serve the party's goals—whether cultural, political or technological. In at least two cases, talent-recruitment stations have been linked to alleged economic espionage.

Talent-recruitment stations have been established since at least 2006, and the number has grown substantially since 2015.<sup>51</sup> The recent expansion may be related to policies associated with the 13th Five-Year Plan (2016–2020) that advocated strengthening talent-recruitment work 'centred on important national needs'.<sup>52</sup> Of the 600 stations identified in this report, more than 115 were established in 2018 alone (Figure 5).<sup>53</sup>

**Figure 5: Talent recruitment stations established each year, 2008 to 2018**



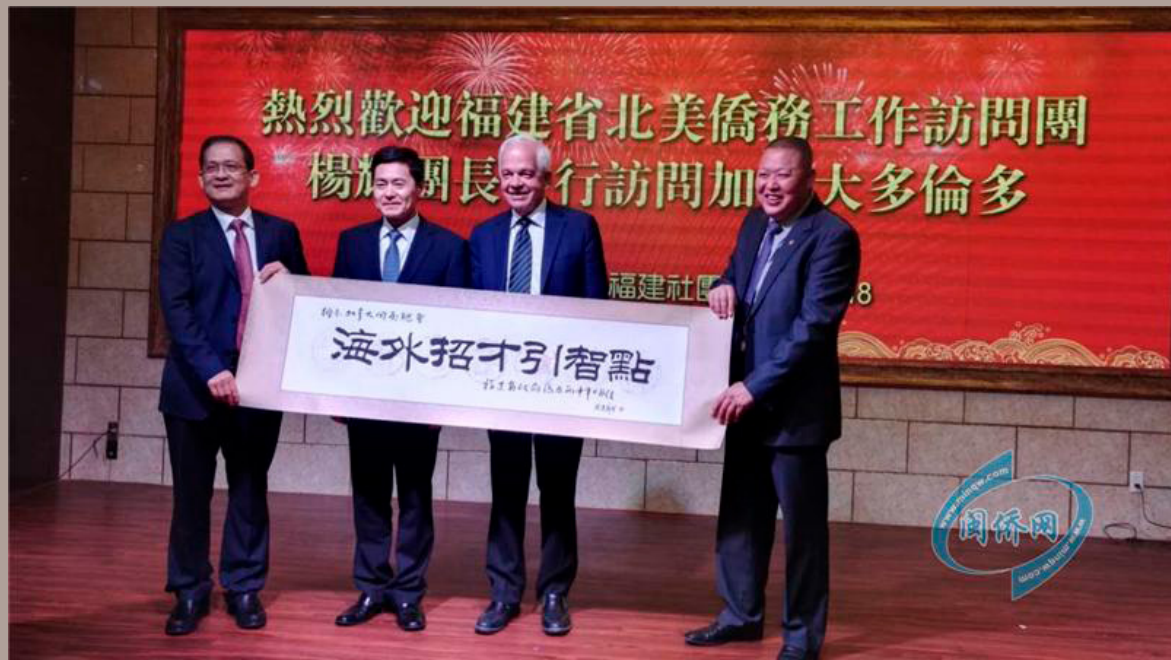
Note: Only stations with verified establishment dates are included.



## Politics and talent recruitment intersecting in Canada

In July 2016, the Fujian Provincial Overseas Chinese Affairs Office, part of the united front system, sent representatives, including its director (pictured first from left in Figure 6), around the world to establish talent-recruitment stations.<sup>54</sup> Four were established in Canada. John McCallum, a Canadian politician who resigned as ambassador to China in 2019 after urging the government to release Huawei CFO Meng Wanzhou, was pictured (second from right) at the opening of a station run by the Min Business Association of Canada (加拿大闽商总会).<sup>55</sup> The association's chairman, Wei Chengyi (魏成义, first from right), is a member of several organisations run by the UFWD in China and has been accused of running a lobbying group for the Chinese Consulate in Toronto.<sup>56</sup>

Figure 6: The opening ceremony



Source: 'Fujian Overseas Chinese Affairs Office's first batch of four overseas talent recruitment sites landed in Canada', *fjse.com*, 21 July 2016, [online](#).

We obtained several talent-recruitment station contracts, contract templates and regulations that shine a light on the stations' operations (Figure 7). They reveal that organisations hosting stations are paid an operating fee, receive bonuses for every individual they recruit and are often required to recruit a minimum number of people each year. Those organisations are also collecting data on foreign scientists and research projects. They organise talent-recruitment events, host and arrange visiting Chinese Government delegations and prepare trips to China for prospective recruits.<sup>57</sup>

**Figure 7: A talent recruitment contract signed between the Human Resources and Social Security Bureau of Qingrong District in Chengdu and a Sino-German talent-exchange association**

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Source: 'About this overseas talent workstation', German-Chinese Senior Talent Exchange and Economic and Trade Cooperation Promotion Association, 12 July 2017, [online](#).

Organisations running recruitment stations can receive as much as ¥200,000 (A\$40,000) for each individual they recruit. In addition, they're paid as much as ¥150,000 (A\$30,000) a year for general operating costs.<sup>58</sup>

CCP talent-recruitment agencies gather large amounts of data on overseas scientists, and overseas talent-recruitment stations may be involved in this information-gathering work. Domestically, the Thousand Talents Think Tank (千人智库), which is affiliated with the UFWD, claims to hold data on 12 million overseas scientists, including 2.2 million ethnic Chinese scientists and engineers.<sup>59</sup> In 2017, a Chinese think tank produced a database of 6.5 million scientists around the world, including 440,000 AI scientists, as a 'treasure map' for China's development of AI technology and a resource for talent recruitment.<sup>60</sup> Abroad, recruitment stations set up by Tianjin City are instructed to 'grasp information on over 100 high-level talents and an equivalent amount of innovation projects'.<sup>61</sup> Qingdao City's overseas stations are required to collect and annually update data on at least 50 individuals at the level of 'associate professor, researcher or company manager' or higher.<sup>62</sup> The Zhuhai City Association for Science and Technology tasks its overseas stations with 'collecting information on overseas science and technology talents, technologies and projects through various channels'.<sup>63</sup>

Information about overseas technologies and scientists is used for targeted recruitment work that reflects the technological needs of Chinese institutions. For example, Shandong University's overseas recruitment stations recommend experts 'on the basis of the university's needs for development, gradually building a talent database and recommending high-level talents or teams to the university

in targeted way'.<sup>64</sup> The Guangzhou Development Zone 'fully takes advantage of talent databases held by their overseas talent workstations ... attracting talents to the zone for innovation and entrepreneurship through exchange events and talks'.<sup>65</sup>

However, the 600 stations identified in this report are probably only a portion of the total number of stations established by the CCP. The real number may be several hundred greater. For example, we identified 90 stations established by the Jiangsu Provincial Government or local governments in the province, yet in 2017 the province's Overseas Chinese Affairs Office—only one of many agencies in the province establishing overseas recruitment stations—stated that it had already established 121 stations.<sup>66</sup>

One hundred and seventy-one identified stations were established by united front agencies such as overseas Chinese affairs offices. For many other stations, it's unclear which part of the bureaucracy established them, so the real number of stations established by the united front system is probably much greater. Similarly, the Qingdao UFWD describes how the city's Organisation Department produced regulations on overseas talent-recruitment stations and the UFWD advised on their implementation and encouraged united front system agencies to carry them out.<sup>67</sup> Universities, party organisation departments, state human resources and social affairs bureaus, state-backed scientific associations and foreign experts affairs bureaus also establish overseas-recruitment stations. None of them is an intelligence agency, but the networks and collection requirements of stations mean they could benefit China's intelligence agencies.

Overseas talent-recruitment stations are typically run by local organisations, which are contracted to operate them for a period of several years. The local groups include hometown associations, business associations, professional organisations, alumni associations, technology-transfer and education companies and Chinese students and scholars associations (CSSAs) (see box). Local host organisations have often been established with support from, or built close relationships with, agencies such as China's State Administration for Foreign Experts Affairs and the UFWD.<sup>68</sup> Overseas operations of Chinese companies reportedly also host talent-recruitment stations.<sup>69</sup> In one case, a station was reportedly established in the University College Dublin Confucius Institute.<sup>70</sup>

### Chinese students and scholars associations involved in running talent-recruitment stations

US	Greater New York Fujian Students and Scholars Association, University of Washington CSSA, North American Chinese Student Association, UC Davis CSSA
Australia	Victoria CSSA, Western Australia CSSA, New South Wales CSSA
UK	United Kingdom CSSA
Switzerland	Geneva CSSA
Italy	Chinese Students and Scholars Union in Italy
Czech Republic	Czech CSSA
Ireland	CSSA Ireland
Hungary	All-Hungary CSSA

Provincial, municipal and district governments are responsible for most talent recruitment, yet their activities are rarely discussed. Qingdao city alone claims that it recruited 1,500 people through its recruitment stations between 2009 and 2014.<sup>71</sup> Out of 600 recruitment stations identified in this research, only 20 were established by national organisations, such as the UFWD's Western Returned Scholars Association (WRSA) and Overseas Chinese Affairs Office.

Similarly, over 80% of talent-recruitment programs are run at the subnational level and may attract as many as seven times as many scientists as the national programs. Between 2008 and 2016, China's Ministry of Human Resources and Social Security determined that roughly 53,900 scholars had been recruited from abroad by local governments. More than 7,000 scholars were recruited through the Thousand Talents Plan and Hundred Talents Plan (another national talent-recruitment program) over the same period.<sup>72</sup>

### Case study: Zhejiang's recruitment work in the United Kingdom

A 2018 CCP report on Zhejiang Province's overseas talent-recruitment work mentioned that it had established 31 overseas recruitment stations. According to the report, Brunel University Professor Zhao Hua (赵华) from the UK is one of the scientists recruited through their efforts.<sup>73</sup> Zhao is an expert in internal combustion engines who was recruited to Zhejiang Painier Technology (浙江派尼尔科技公司), which produces 'military and civilian-use high-powered outboard engines'.<sup>74</sup> The partnership between Zhao and Zhejiang Painier Technology was formed with the help of a talent-recruitment station and reportedly attracted ¥300 million (A\$60 million) in investment.<sup>75</sup>

The Zhejiang UK Association (英国浙江联谊会) runs as many as four talent-recruitment stations and has recruited more than 100 experts for Zhejiang Province or cities in the province.<sup>76</sup> They include a station for Jinhua, the city where Zhejiang Painier Technology is based, so it could have been the organisation that recruited Professor Zhao.<sup>77</sup>

The Zhejiang UK Association's founding president is Lady Bates (or Li Xuelin, 李雪琳), the wife of Lord Bates, Minister of State for International Development from 2016 until January 2019.<sup>78</sup> Accompanied by her husband, Lady Bates represented the association at the establishment of a recruitment station for Zhejiang Province's Jinhua city in 2013 (Figure 8).<sup>79</sup> She was a non-voting delegate to the peak meeting place of the CCP-led United Front—the Chinese People's Political Consultative Conference (CPPCC)—and is a member of the UFWD-run China Overseas Friendship Association.<sup>80</sup>

*Continued on next page*

Figure 8: Lord (first row, second from right) and Lady Bates (first row, centre)



Source: ‘英国浙江联谊会再次携手浙江——与金华市政府签署设立金华英国工作站协议’ [British Zhejiang Friendship Association joins hands with Zhejiang again—Signed an agreement with Jinhua Municipal Government for the establishment of Jinhua UK Workstation], ZJUKA, no date, [online](#).

Counsellor Li Hui (李辉), a senior united front official from the Chinese Embassy in London, praised the association at the station’s founding.<sup>81</sup> In particular, he noted Lady Bates’s use of her personal connections to arrange for the signing ceremony to be held in the Palace of Westminster.<sup>82</sup>

Talent-recruitment stations help arrange visits by Chinese delegations. For example, the Australian alumni association of Northwestern Polytechnical University (NWPU) became a recruitment station for the university and Xi’an City, where the university is located, in 2018.<sup>83</sup> It arranged meetings between NWPU representatives and leading Australian-Chinese scientists and helped the university sign partnerships with them. Within a month, it claimed to have introduced five professors from universities in Melbourne to NWPU, although it’s unclear how many of them were eventually recruited by the university.<sup>84</sup> NWPU specialises in aviation, space and naval technology as one of China’s ‘Seven Sons of National Defence’—the country’s leading defence universities.<sup>85</sup> It’s been implicated in an effort to illegally export equipment for antisubmarine warfare from the US.<sup>86</sup>

Overseas talent-recruitment organisations also run competitions and recruitment events for the Chinese Government. For example, in 2017, the UFWD’s WRSA held competitions around the world, including in Paris, Sydney, London and San Francisco, in which scientists pitched projects in the hope of receiving funding from and appointments in China. The events were held with the help of 29 European, Singaporean, Japanese, Australian and North American united front groups for scientists.<sup>87</sup> Organisations including the University of Technology Sydney CSSA and the Federation of Chinese Scholars in Australia (全澳华人专家学者联合会)—a peak body for Chinese-Australian professional associations that was set up under the Chinese Embassy’s guidance—have partnered with the Chinese Government to hold recruitment competitions tied to the Thousand Talents Plan.<sup>88</sup> As described below, CSSAs have run recruitment events for Chinese military institutions and state-owned defence companies.



## Talent recruitment in Japan

The All-Japan Federation of Overseas Chinese Professionals (中国留日同学会) is the leading united front group for ethnic Chinese scientists and engineers in Japan. It describes itself as having been established in 1998 under the direction of the UFWD and the UFWD's WRSA, which is a dedicated body used by the department to interact with and influence scholars with overseas connections.<sup>89</sup> Every president of the federation has also served as a council member of the WRSA or the China Overseas Friendship Association, which is another UFWD-run body.<sup>90</sup> It runs at least eight talent-recruitment stations—organising talent-recruitment events in Japan and bringing scientists to talent-recruitment expos in China—and reportedly recruited 30 scientists for Fujian Province alone.<sup>91</sup> Despite its involvement in the CCP's technology-transfer efforts, it has partnered with the Japan Science and Technology Agency to run events.<sup>92</sup> Former prime minister Hatoyama Yukio (鸠山由纪夫) attended the opening of a WRSA overseas liaison workstation run by the group—the first established by the WRSA (Figure 9).<sup>93</sup>

Figure 9: Former Japanese prime minister Hatoyama Yukio at the opening of a WRSA workstation



While raw numbers of recruited scientists are occasionally published, specific examples of scientists recruited by individual stations are difficult to find. In 2018, Weihai, a city in Shandong Province, released the names of 25 scientists recruited through stations in Japan and Eastern Europe.<sup>94</sup> Among the recruits were medical researchers and AI specialists, including a Ukrainian scientist specialising in unmanned aerial vehicles who was recruited by Harbin Institute of Technology—one of China's leading defence research universities.<sup>95</sup>

## Case study: The Changzhou UFWD's overseas network

The UFWD of Changzhou, a city between Shanghai and Nanjing, has established talent-recruitment stations around the world. The UFWD set up the stations alongside its establishment of hometown associations for ethnic Chinese in foreign countries. This illustrates the united front system's integration of technology-transfer efforts and political and community influence work.

In October 2014, a delegation led by the Changzhou UFWD head Zhang Yue (张跃) travelled to Birmingham to oversee the founding of the UK Changzhou Association (英国常州联谊会). Zhang and the president of the UK Promotion of China Re-unification Society (全英华人华侨中国统一促进会) were appointed as the association's honorary presidents.<sup>96</sup> A united front official posted to the PRC Embassy in London also attended the event.<sup>97</sup>

The association immediately became an overseas talent-recruitment station for Changzhou and a branch of the Changzhou Overseas Friendship Association, which is headed by a leader of the Changzhou UFWD.<sup>98</sup> According to a CCP media outlet, the association 'is a window for external propaganda for Changzhou and a platform for talent recruitment' (Figure 10).<sup>99</sup>

**Figure 10: A plaque awarded by the Changzhou City Talent Work Leading Small Group Office to its 'UK talent recruitment and knowledge introduction workstation' in 2014**



Three days later, the Changzhou UFWD delegation appeared in Paris for the founding of the France Changzhou Association (法国常州联谊会). Again, the Changzhou UFWD head was made honorary president and the association became a talent-recruitment station and a branch of the Changzhou Overseas Friendship Association. CCP media described it as 'the second overseas work platform established by Changzhou' under the leadership of Changzhou's Overseas Chinese Federation, which is a united front agency.<sup>100</sup>



As detailed in a report published by the province's overseas Chinese federation, these activities were part of the Changzhou united front system's strategy of 'actively guiding the construction of foreign overseas Chinese associations'.<sup>101</sup> By 2018, when the report was published, the city had established associations in Australia, Canada, Singapore, the US and Hong Kong and was in the middle of establishing one in Macau. The founding of the Australian association was attended by a senior Changzhou UFWD official, Victorian Legislative Assembly member Hong Lim and Australian Chinese-language media mogul Tommy Jiang (姜兆庆).<sup>102</sup>

# Economic espionage

The following two case studies demonstrate how talent-recruitment stations and their hosting organisations have been implicated in economic espionage and are often closely linked to the CCP's united front system.

## Case study: Cao Guangzhi

In March 2019, Tesla sued its former employee Cao Guangzhi (曹光植, Figure 11), alleging that he stole source code for its Autopilot features before taking it to a rival start-up, China's Xiaopeng Motors.<sup>103</sup> In July, he admitted to uploading the source code to his iCloud account but denies stealing any information.<sup>104</sup> Tesla calls Autopilot the 'crown jewel' of its intellectual property portfolio and claims to have spent hundreds of millions of dollars over five years to develop it.<sup>105</sup> Additional research on the subject of this ongoing legal case shows a pattern of cooperation between Cao and the CCP's united front system on talent-recruitment work dating back to nearly a decade before the lawsuit.

**Figure 11: Cao Guangzhi (far left) with other co-founders of the Association of Wenzhou PhDs USA**



Source: '全美温州博士协会 “藏龙卧虎” · 有古根海姆奖得主、苹果谷歌工程师...' [The 'Hidden Dragon and Crouching Tiger' of the Wenzhou Doctors Association of the US; there are Guggenheim Award winners, Apple Google engineers...], WZRB, 14 April 2017, [online](#).

When Cao submitted his doctoral thesis to Purdue University in 2009, he and three friends established the Association of Wenzhou PhDs USA (全美温州博士协会).<sup>106</sup> All four hail from Wenzhou, a city south of Shanghai known for the hundreds of renowned mathematicians who were born there.<sup>107</sup> From its inception, the association has worked closely with the PRC Government. A report from Wenzhou's local newspaper claims that the Wenzhou Science and Technology Bureau, Overseas Chinese Affairs Office and Overseas Chinese Federation gave the group a list of US-based PhD students and graduates from the town, whom they then recruited as members.<sup>108</sup> The head of the Wenzhou UFWD praised the association during a 2010 trip to America as 'the first of its kind and highly significant'.<sup>109</sup>

The Association of Wenzhou PhDs USA carries out talent recruitment on behalf of the CCP. The year after its establishment, it signed an agreement with the UFWD of a county in Wenzhou to run a talent-recruitment station that gathers information on overseas scientists and carries out recruitment work.<sup>110</sup> That year, it also arranged for 13 of its members to visit Wenzhou for meetings with talent-recruitment officials from organisations such as the local foreign experts affairs bureau<sup>111</sup> and with representatives of local companies. Several of the members also brought their research with them, presenting technologies such as a multispectral imaging tool.<sup>112</sup>

Within a few years of its founding, the association had built up a small but elite group of more than 100 members. By 2017, its members reportedly included Lin Jianhai (林建海), the Wenzhou-born secretary of the International Monetary Fund; engineers from Google, Apple, Amazon, Motorola and IBM; scholars at Harvard and Yale; and six US government employees.<sup>113</sup> At least one of its members became a Zhejiang Province Thousand Talents Plan scholar through the group's recommendation.<sup>114</sup> It also helped Wenzhou University recruit a materials scientist from the US Government's Argonne National Laboratory.<sup>115</sup>

### Case study: Yang Chunlai

The case of Yang Chunlai (杨春来) offers a window into the overlap of the united front system and economic espionage. Yang was a computer programmer at CME Group, which manages derivatives and futures exchanges such as the Chicago Mercantile Exchange. Employed at CME Group since 2000, he was arrested by the Federal Bureau of Investigation (FBI) in July 2011.<sup>116</sup> In 2015, he pleaded guilty to trade secrets theft for stealing CME Group source code in a scheme to set up a futures exchange company in China. He was sentenced to four years' probation.<sup>117</sup>

Before his arrest, Yang played a central role in a united front group that promotes talent recruitment by, and technology transfer to, China: the Association of Chinese-American Scientists and Engineers (ACSE, 旅美中国科学家工程师专业人士协会). From 2005 to 2007 he was the group's president, and then its chairman to 2009.<sup>118</sup>

ACSE is one of several hundred groups for ethnic Chinese professionals that are closely linked to the CCP.<sup>119</sup> ACSE and its leaders frequently met with PRC officials, particularly those from united front agencies such as the Overseas Chinese Affairs Office (OCAO),<sup>120</sup> the CPPCC and the All-Chinese Federation of Returned Overseas Chinese. At one event, the future director of the OCAO, Xu Yousheng (许又声), told ACSE:

There are many ways to serve the nation; you don't have to return to China and start an enterprise. You can also return to China to teach or introduce advanced foreign technology and experience—this is a very good way to serve China.<sup>121</sup>

Yang was appointed to the OCAO's expert advisory committee in 2008.<sup>122</sup> In 2010, he also spoke about ACSE's close relationship with the UFWD-run WRSA.<sup>123</sup>

Further illustrating these linkages, Yang visited Beijing for a 'young overseas Chinese leaders' training course run by the OCAO in May 2006. Speaking to the *People's Daily* during the course, Yang said, 'It's not that those who stay abroad don't love China; it's the opposite. The longer one stays in foreign

lands, the greater one's understanding of the depth of homesickness.<sup>124</sup> Yang also spoke of the sensitivity of source code used by companies, work on which doesn't get outsourced. However, he hinted at his eventual theft of code by saying: 'Of course, even with things the way they are, everyone is still looking for suitable entrepreneurial opportunities to return to China'.<sup>125</sup>

In 2009, an 'entrepreneurial opportunity' may have presented itself when ACSE hosted a talent-recruitment event by a delegation from the city of Zhangjiagang (张家港).<sup>126</sup> At the event, which Yang attended (Figure 12), ACSE signed a cooperation agreement with Zhangjiagang to 'jointly build a Sino-US exchange platform and contribute to the development of the homeland'—potentially indicating the establishment of a talent-recruitment station or a similar arrangement.<sup>127</sup>

**Figure 12: Yang Chunlai (rear, second from right) at the signing ceremony for ACSE's partnership with Zhangjiagang**



Yang later wrote a letter to the OCAO proposing the establishment of an electronic trading company led by him in Zhangjiagang and asking for the office's support.<sup>128</sup> In mid-2010, he emailed CME Group trade secrets to officials in Zhangjiagang and started setting up a company in China. By December, he began surreptitiously downloading source code from CME Group onto a removable hard drive.<sup>129</sup> Yang's relationship with the OCAO probably facilitated and encouraged his attempt to steal trade secrets in order to establish a Chinese company that, according to his plea deal, would have become 'a transfer station to China for advanced technologies companies around the world'.<sup>130</sup>

Yang's activities appeared to go beyond promoting technology transfer; there are indications that he was also involved in political influence work. This reflects the united front system's involvement in both technology transfer and political interference. At a 2007 OCAO-organised conference in Beijing, Yang said that he had been encouraged by CPPCC Vice Chairman and Zhi Gong Party Chairman Luo Haocai to actively participate in politics, which he described as 'a whip telling overseas Chinese to integrate into mainstream society'. He added, 'I estimate that [ACSE] can influence 500 votes' in the 2008 US presidential election.<sup>131</sup> Yang also befriended politicians, including one senator, who wrote a letter to the judge testifying to Yang's good character.<sup>132</sup> In his OCAO conference speech, he highlighted the appointment of Elaine Chao as US Secretary of Labor and her attendance at ACSE events.<sup>133</sup>

## Talent recruitment and the Chinese military

Talent recruitment is also being directly carried out by the Chinese military. For example, the National University of Defense Technology (NUDT, the People's Liberation Army's premier science and technology university) has recruited at least four professors from abroad, including one University of New South Wales supercomputer expert, using the Thousand Talents Plan.<sup>134</sup>

Outside of formal talent-recruitment programs, NUDT has given guest professorships to numerous overseas scientists. For instance, Gao Wei (高唯), an expert in materials science at New Zealand's University of Auckland, was awarded a distinguished guest professorship at NUDT in May 2014.<sup>135</sup> Gao is closely involved in CCP talent-recruitment efforts. In 2016, he joined Chengdu University as a selectee of the Sichuan Provincial Thousand Talents Plan.<sup>136</sup> Just a month before joining NUDT, he signed a partnership with the State Administration of Foreign Experts Affairs as president of the New Zealand Chinese Scientists Association (新西兰华人科学家协会).<sup>137</sup> In 2018, the association agreed to run a talent-recruitment station for an industrial park in Shenzhen.<sup>138</sup> He has reportedly served as a member of the overseas expert advisory committee to the united front system's OCAO.<sup>139</sup> In 2017, at one of the OCAO's events, Gao expressed his desire to commercialise his research in China and said that 'even though our bodies are overseas, we really wish to make our own contributions to [China's] development'.<sup>140</sup>

The military's recruitment of scientists is supported by the same network of overseas recruitment stations and CCP-linked organisations that are active in talent-recruitment work more generally. Chinese military recruitment delegations have travelled around the world and worked with local united front groups to hold recruitment sessions. In 2014, the New South Wales Chinese Students and Scholars Association (NSW-CSSA, 新南威尔士州中国学生学者联谊会) held an overseas talent-recruitment event for NUDT and several military-linked civilian universities.<sup>141</sup> The NSW-CSSA is a peak body for CSSAs and holds its annual general meetings in the Chinese Consulate in the presence of Chinese diplomats.<sup>142</sup> In 2013, NUDT held a recruitment session in Zürich organised by the Chinese Association of Science and Technology in Switzerland (瑞士中国学人科技协会).<sup>143</sup> A similar event was held in Madrid in 2016.<sup>144</sup>

The Chinese Academy of Engineering Physics (CAEP), which runs the military's nuclear weapons program, is particularly active in recruiting overseas experts. By 2014, CAEP had recruited 57 scientists through the Thousand Talents Plan.<sup>145</sup> It runs the Center for High Pressure Science and Technology Advanced Research in Beijing in part as a platform for recruiting overseas talent. The institute doesn't mention its affiliation with CAEP on its English-language website, yet it's run by a Taiwanese-American scientist who joined CAEP through the Thousand Talents Plan.<sup>146</sup> So many scientists from the US's Los Alamos National Laboratory (a nuclear weapons research facility) have been recruited to Chinese institutions that they're reportedly known as the 'Los Alamos club'.<sup>147</sup>

CAEP also holds overseas recruitment events. At a 2018 event in the UK, a CAEP representative noted the organisation's intention to gain technology through talent recruitment, saying 'our academy hopes that overseas students will bring some advanced technologies back, and join us to carry out research projects'.<sup>148</sup>

Chinese state-owned defence conglomerates are engaged in the same activities. China Electronics Technology Group Corporation (CETC), which specialises in developing military electronics, has been building its presence in Austria, where it opened the company's European headquarters in 2016 and runs a joint laboratory with Graz University of Technology.<sup>149</sup> As part of its expansion, it held a meeting of the European Overseas High-level Talent Association (欧洲海外高层次人才联谊会) in 2017 that was attended by dozens of scientists from across Europe. Later that year, CETC reportedly held similar meetings and recruitment sessions in Silicon Valley and Boston.<sup>150</sup> In 2013, the head of CETC's 38th Research Institute, which specialises in military-use electronics such as radar systems, visited Australia and met with a local united front group for scientists.<sup>151</sup> Several members of the group from the University of Technology Sydney attended the meeting, and two years later the university signed a controversial \$10 million partnership with CETC on technologies such as AI and big data.<sup>152</sup>

The Chinese Government's primary manufacturer of ballistic missiles and satellites, China Aerospace Science and Technology Corporation, has held recruitment sessions in the US and UK through the help of local CSSAs.<sup>153</sup>

In addition to traditional defence institutions (military institutes and defence companies), China's civilian universities are increasingly involved in defence research and have also recruited large numbers of overseas scientists. ASPI ICPC's *China Defence Universities Tracker* has catalogued and analysed the implementation of military-civil fusion in the university sector.<sup>154</sup> The policy of military-civil fusion has led to the establishment of more than 160 defence laboratories in Chinese universities, and such defence links are particularly common among leading Chinese universities that attract the greatest share of talent-recruitment program participants.<sup>155</sup> Many recruits end up working in defence laboratories or on defence projects.<sup>156</sup>



# Recommendations

The CCP's use of talent-recruitment activity as a conduit for non-transparent technology transfer presents a substantial challenge to governments and research institutions. Many of those activities fly under the radar of traditional counterintelligence work, yet they can develop into espionage, interference and illegal or unethical behaviour.

While this phenomenon may still be poorly understood by many governments and universities, it can often be addressed by better enforcement of existing regulations. Much of the misconduct associated with talent-recruitment programs breaches existing laws, contracts and institutional policies. The fact that it nonetheless occurs at high levels points to a failure of compliance and enforcement mechanisms across research institutions and relevant government agencies. Governments and research institutions should therefore emphasise the need to build an understanding of CCP talent-recruitment work. They must also ensure that they enforce existing policies, while updating them as necessary. This report recommends the introduction of new policies to promote transparency and accountability and help manage conflicts of interest.

## For governments

We recommend that governments around the world pursue the following measures:

1. Task appropriate agencies to carry out a study of the extent and mechanisms of CCP talent-recruitment work, including any related misconduct, in their country.
2. Ensure that law enforcement and security agencies are resourced and encouraged to investigate and act on related cases of theft, fraud and espionage.
3. Explicitly prohibit government employees from joining foreign talent-recruitment programs.
4. Introduce clear disclosure requirements for foreign funding and appointments of recipients of government-funded grants and assessors of grant applications.
5. Ensure that funding agencies have effective mechanisms and resources to investigate compliance with grant agreements.
6. Ensure that recipients of government research funding are required to disclose relevant staff participation in foreign talent-recruitment programs.
7. Establish a public online database of all external funding received by public universities and their employees and require universities to submit and update data.
8. Establish a national research integrity office that oversees publicly funded research institutions, produces reports for the government and public on research integrity issues, manages the public database of external funding in universities, and carries out investigations into research integrity.
9. Brief universities and other research institutions about CCP talent-recruitment programs and any relevant government policies.
10. Develop recommendations for universities and other research institutions to tackle talent-recruitment activity.

This can draw on the *Guidelines to counter foreign interference in the Australian university sector* developed by a joint government and university sector taskforce on foreign interference.<sup>157</sup>



11. Create an annual meeting of education, science and industry ministers from like-minded countries to deepen research collaboration within alliances, beyond existing military and intelligence research partnerships, and coordinate on issues such as technology and research security.
12. Increase funding for the university sector and priority research areas, such as artificial intelligence, quantum science and energy storage, perhaps as part of the cooperation proposed above.
13. Develop national strategies to commercialise research and build talent.

### **For research institutions**

We recommend that research institutions such as universities pursue the following measures:

1. Carry out a comprehensive and independent audit of participation in CCP talent-recruitment programs by staff.
2. Ensure that there's sufficient resourcing to implement and ensure compliance with policies on conflicts of interest, commercialisation, integrity and intellectual property.
3. Fully investigate cases of fraud, misconduct or nondisclosure.

These investigations should determine why existing systems failed to prevent misconduct and then discuss the findings with relevant government agencies.

4. In conjunction with the government, brief staff on relevant policies on and precautions against CCP talent-recruitment programs.
5. Strengthen existing staff travel databases to automatically flag conflicts with grant commitments and contracts.
6. Update policies on intellectual property, commercialisation, research integrity, conflicts of interest and external appointments where necessary.

Participants in CCP talent-recruitment programs should be required to submit their contracts with the foreign institution (both English and Chinese versions) and fully disclose any remuneration.

## Appendix 1: Selected Chinese government talent-recruitment programs

China's State Administration of Foreign Experts Affairs released a bilingual list of nearly 200 recognised talent-recruitment schemes in 2018, which was adapted to create the table below.<sup>158</sup> However, the list isn't complete and doesn't include several subnational programs.<sup>159</sup> Some programs are also known by several names, which might not be included here. The total number of talent-recruitment programs operated by the Chinese Government over the past two decades probably greatly exceeds 200.

Talent program name (English)	Talent program name (Chinese)	Supervising agency
The Recruitment Program of Global Experts or Thousand Talents Plan	千人计划	Organisation Department
Project for Experts' Return and Settlement in China	回国(来华)定居工作专家项目	Ministry of Human Resources and Social Security
Funding Scheme for High-Level Overseas Chinese Students' Return	高层次留学人才回国资助计划	Ministry of Human Resources and Social Security
Funding Scheme for Outstanding Scientific and Technological Programs by Chinese Students Abroad	留学人员科技活动项目择优资助计划	Ministry of Human Resources and Social Security
Supporting Scheme for Returned Overseas Chinese Students' Entrepreneurial Start-ups	中国留学人员回国创业启动支持计划	Ministry of Human Resources and Social Security
Project on Postdoctoral International Exchanges	博士后国际交流计划引进项目	Ministry of Human Resources and Social Security
Homeland-Serving Action Plan for Overseas Chinese	海外赤子为国服务行动计划	Ministry of Human Resources and Social Security
High-End Foreign Experts Project	高端外国专家项目	State Administration of Foreign Experts Affairs
Chinese Government Friendship Award	中国政府友谊奖项目	State Administration of Foreign Experts Affairs
Program for the Introduction of High-Level Overseas Cultural and Educational Experts	引进海外高层次文教专家重点支持项目	State Administration of Foreign Experts Affairs
Program for the Introduction of Renowned Overseas Professors	海外名师引进计划	State Administration of Foreign Experts Affairs
Network in International Centers for Education in China	高校国际化示范学院推进计划	State Administration of Foreign Experts Affairs
OEI for Disciplinary Innovation in Universities	高等学校学科创新引智计划	State Administration of Foreign Experts Affairs
OEI under 'Belt and Road Initiative' in Cultural and Educational Sector	'一带一路'教科文卫引智计划	State Administration of Foreign Experts Affairs
Overseas Experts Supporting Programs under National Research Platform	国家科研平台外国专家支持计划	State Administration of Foreign Experts Affairs
Dialogue with Masters – Nobel Prize Laureates on Campus	与大师对话-诺贝尔奖获得者校园行项目	State Administration of Foreign Experts Affairs

Talent program name (English)	Talent program name (Chinese)	Supervising agency
Introduction of Overseas Young Talents in Cultural and Educational Sector	文教类外国青年人才引进项目	State Administration of Foreign Experts Affairs
Special Programs with Universities Directly under the Administration of Ministries and Commissions of the Central Government	部属高校学校特色项目	State Administration of Foreign Experts Affairs
Project for Chief Foreign Experts	首席外国专家项目	State Administration of Foreign Experts Affairs
Project for Young Foreign Experts in Economic and Technological Sector	经技类青年外国专家项目	State Administration of Foreign Experts Affairs
Project for Key Foreign Experts in Economic and Technological Sector	经技类重点外国专家项目	State Administration of Foreign Experts Affairs
Changjiang Scholars Program	长江学者奖励计划	Changjiang Scholars Program
Sino-US Fulbright Program	中美富布赖特项目	Ministry of Education
Youth Talent Plan of Huangjiqing	中国地质科学院地质研究所黄汲清青年人才计划	Ministry of Land and Resources
Young Talents Program under the Chinese Academy of Agricultural Sciences	中国农业科学院青年英才计划	Ministry of Agriculture
Recruitment Plan for High-level Overseas Cultural Talents	海外高层次文化人才引进计划	Ministry of Culture
'532' Talents Program under the China National Center for Food Safety Risk Assessment	国家食品安全风险评估中心'532'人才计划	National Health Commission (formerly National Health and Family Planning Commission)
CAS Hundred Talents Project	中国科学院百人计划	Chinese Academy of Sciences
Program for Innovation Teams on International Cooperation	创新团队国际合作伙伴计划	Chinese Academy of Sciences
Chinese Academy of Sciences Program for Overseas Evaluation Experts	海外评审专家项目	Chinese Academy of Sciences
Program for the Introduction of Prominent Technical Talents	引进杰出技术人才项目	Chinese Academy of Sciences
Project for 'Hundred Talents' Introduction and 'Hundred Talents' Selection	中国气象局双百计划	China Meteorological Administration
Program for Foreign High-Level Talents Introduction	国家核电外籍高层次人才引进计划	State Nuclear Power Technology Corporation
Program for Overseas Talents Aggregation	北京市海外人才聚集工程	Beijing Municipality
Great Minds Gather in Beijing Plan	融智北京计划	Beijing Municipality
Tianjin Haihe Friendship Award	天津市海河友谊奖	Tianjin Municipality
Program for Overseas High-Level Talents Introduction	天津市海外高层次人才引进计划	Tianjin Municipality
1,000 Foreign Experts Introduction Plan	天津市外专千人计划	Tianjin Municipality

Talent program name (English)	Talent program name (Chinese)	Supervising agency
Tianjin Municipal Distinguished Professor	天津市特聘 ( 讲座 ) 教授	Tianjin Municipality
Plan of Supporting Entrepreneurial Talents Returning from Studying Overseas	天津市留学人员回国创业启动支持计划	Tianjin Municipality
Plan of Funding Outstanding Science and Technology Projects Launched by Talents Returning from Studying Overseas	天津市留学人员科技活动启动项目择优资助计划	Tianjin Municipality
100 Talents Plan of Hebei Province	河北省百人计划	Hebei Province
100 Foreign Experts Introduction Plan	河北省外专百人计划	Hebei Province
Yanzhao Friendship Award	河北省燕赵友谊奖	Hebei Province
100 Talents Plan on Overseas High-Level Talents Introduction	山西省引进海外高层次人才百人计划	Shanxi Province
Shanxi Provincial Friendship Award	山西省政府友谊奖	Shanxi Province
Shanxi Province Plan of Funding Outstanding Young Talents	山西省青年拔尖人才支持计划	Shanxi Province
Program for Cultivating Excellent Entrepreneurs	山西省优秀企业家培育工程	Shanxi Province
Program for Grassland Elite	草原英才工程	Inner Mongolia Autonomous Region
Inner Mongolia Steed Award	内蒙古自治区骏马奖	Inner Mongolia Autonomous Region
Program for High-Level Talents Introduction	内蒙古自治区高端人才引进实施计划	Inner Mongolia Autonomous Region
10-100-1,000 Program for High-End Talents Introduction	辽宁省十百千高端人才引进工程	Liaoning Province
Friendship Award of Liaoning Province	辽宁友谊奖	Liaoning Province
Program for Key Foreign Experts Introduction	辽宁省引进国外专家重点项目	Liaoning Province
Shenyang Rose Award	沈阳市政府'沈阳玫瑰奖'项目	Shenyang City
Program for Overseas Research and Development Team Introduction	沈阳市引进海外研发团队项目	Shenyang City
High-level Talents Introduction Plan	大连市高层次人才引进计划	Dalian City
Plan to Promote and Congregate a Gathering of Outstanding Overseas Experts	大连市海外优秀专家集聚计划	Dalian City
Overseas High-level Talents Introduction Plan	大连市海外高层次人才引进计划	Dalian City
Program for High-Level Entrepreneurial and Innovative Talents Introduction	吉林省高层次创新创业人才引进计划	Jilin Province
Changbai Mountain Friendship Award	吉林省长白山友谊奖	Jilin Province

Talent program name (English)	Talent program name (Chinese)	Supervising agency
Funding Program for Preferential Returned Scientific Research Students Innovative and Start-ups	吉林省择优资助留学回国科研人员创新创业项目	Jilin Province
Funding Program for Preferential Postdoctorate Scientific Research	吉林省择优资助博士后科研项目	Jilin Province
Friendship Award	长春市友谊奖	Changchun City
Excellent Foreign Experts	优秀外国专家	Changchun City
'1,000 Talent Plan' of Heilongjiang	黑龙江省引进海外高层次人才暂行办法	Heilongjiang Province
Heilongjiang Belt and Road Talent Introduction Project	龙江丝路带引才引智专项	Heilongjiang Province
Special Supporting Plan for Talents of Science and Technology	龙江科技英才特殊支持计划	Heilongjiang Province
Funding Program for Preferential Postdoctorate Scientific Research	黑龙江省择优资助博士后科研项目	Heilongjiang Province
Harbin Talents Aggregation Program	哈尔滨英才集聚计划	Harbin City
Program for High-Level Overseas Talents Introduction	上海市海外高层次人才引进计划	Shanghai Municipality
1,000 Talents Plan of Shanghai	上海市千人计划	Shanghai Municipality
Shanghai Outstanding Academic Leaders Plan	上海领军人才培养计划	Shanghai Municipality
Shanghai Magnolia Award	上海市白玉兰奖	Shanghai Municipality
Shanghai Pujiang Program	上海市浦江人才计划	Shanghai Municipality
Shanghai Program for Professor of Special Appointment Eastern Scholar at Shanghai Institutions of Higher Learning	上海高校特聘教授(东方学者)岗位计划	Shanghai Municipality
Shanghai Rising-Star Program	上海市青年科技启明星计划	Shanghai Municipality
Shanghai Excellent Academic/Technology Research Leader Program	上海市优秀学术/技术带头人计划	Shanghai Municipality
Shanghai Financial Talent Project	上海金才工程	Shanghai Municipality
Program for High-Level Entrepreneurial and Innovative Talents Introduction	江苏省高层次创新创业人才引进计划	Jiangsu Province
100 Foreign Experts Introduction Plan	江苏省外专百人计划	Jiangsu Province
Recruitment Program of Returned Overseas Chinese Scholars	江苏省留学回国人员创新创业计划	Jiangsu Province
Jiangsu Six Talent Peaks Program	六大人才高峰	Jiangsu Province
Jiangsu Specially Appointed Professor Program	江苏特聘教授计划	Jiangsu Province
Jiangsu Friendship Award	江苏友谊奖	Jiangsu Province
321 Program for Talents Introduction	南京市321 人才引进计划	Nanjing City
Venture Nanjing Talent Program	创业南京人才计划	Nanjing City
Program for High-Level Talent Team Introduction	高端人才团队引进计划	Nanjing City

Talent program name (English)	Talent program name (Chinese)	Supervising agency
1,000 Talents Plan of Zhejiang Province	浙江省千人计划	Zhejiang Province
Zhejiang Overseas Engineers Program	浙江省‘海外工程师’计划	Zhejiang Province
Zhejiang ‘West Lake Friendship Award’ for Foreign Experts	浙江省外国专家‘西湖友谊奖’	Zhejiang Province
Program of Foreign Expertise Introduction of Zhejiang Province	浙江省引进外国专家项目计划	Zhejiang Province
College Elites Aggregation Program of Zhejiang Province	浙江省‘高校精英集聚计划’	Zhejiang Province
521 Program for Global Talents Introduction	杭州市全球引才521 计划	Hangzhou City
Hangzhou ‘115’ Overseas Talents Introduction Plan	杭州市‘115’引进国(境)外智力计划高端年薪资助项目、重点资助项目	Hangzhou City
Hangzhou ‘Qianjiang Friendship Award’ for Foreign Experts	杭州市外国专家‘钱江友谊奖’	Hangzhou City
3315 Talents Program	宁波市3315 计划	Ningbo City
Ningbo Overseas Engineers Experts Program	宁波市‘海外工程师’计划	Ningbo City
Camellia Prize	宁波市茶花奖	Ningbo City
100 Talents Plan of Anhui Province	安徽省百人计划	Anhui Province
100 Foreign Experts Introduction Plan	安徽省外专百人计划	Anhui Province
Huangshan Friendship Award	安徽省黄山友谊奖	Anhui Province
Program for High-Level Entrepreneurial and Innovative Talents Introduction	福建省引进高层次创业创新人才计划	Fujian Province
100 Talents Plan Foreign Experts Program	福建省外专百人计划	Fujian Province
Program for Overseas High-Level Talents Introduction into Fujian Free Trade Pilot Zone	福建自贸试验区境外引进高层次人才	Fujian Province
Fujian Province Program for High-Level Talents Introduction (A, B and C Class)	福建省引进高层次人才 (A、B、C 类)	Fujian Province
Program for High-end Foreign Expert Groups Introduction	福建省高端外国专家团队引进计划	Fujian Province
Program for Young Foreign Experts Introduction	福建省青年外国专家引进计划	Fujian Province
Fujian Friendship Award	福建省友谊奖	Fujian Province
Program for Overseas High-Level Talents Introduction	福建省海外高层次引进人才	Fujian Province
Xiamen City Program for ‘ARRIS’	厦门市‘海纳百川’人才计划	Xiamen City
Double-Hundred Talents Plan for High-level Talents Introduction	厦门市引进高层次人才‘双百计划’	Xiamen City
Egret Friendship Award	厦门市‘白鹭友谊奖’	Xiamen City

Talent program name (English)	Talent program name (Chinese)	Supervising agency
Program for Domestic and Overseas High-level Technical Talents Introduction	江西省面向国内外引进优秀高层次人才专业技术人才计划	Jiangxi Province
Program for High-end Foreign Experts and Overseas Engineers in Short Supply Introduction	江西省高端外国专家和急需紧缺海外工程师引进计划	Jiangxi Province
Program for Overseas Medical Research Talents Introduction	江西省海外医疗科研人才引进计划	Jiangxi Province
Lushan Friendship Award	庐山友谊奖	Jiangxi Province
Program for High-level Entrepreneurial and Innovative Talents Introduction and High-end Talents Flexible Introduction	江西省创新创业人才引进计划和高端人才柔性特聘计划	Jiangxi Province
Taishan Scholars Project	山东省泰山学者建设工程	Shandong Province
Double-Hundred Talent Plan on 100 Foreign Experts and 100 Foreign Expert Teams Introduction	外专双百计划	Shandong Province
Shandong Provincial Government Qilu Friendship Award	山东省政府齐鲁友谊奖	Shandong Province
5150 Program for Talents Introduction	济南市5150 引才计划	Jinan City
Quancheng Friendship Award	泉城友谊奖	Jinan City
Quancheng Program for Entrepreneurial and Innovative Talents Introduction	‘泉城双创’人才计划	Jinan City
Quancheng Program for High-end Foreign Experts Introduction	泉城高端外专计划	Jinan City
Program for Entrepreneurial and Innovative Leading Talents	青岛市创业创新领军人才计划	Qingdao City
Incentive Plan for High-end Talents	青岛专家激励计划	Qingdao City
‘Qindao’ Award Winner	‘琴岛奖’获得者	Qingdao City
Aoshan Program for Talents Introduction	鳌山人才引进计划	Qingdao City
Program for Overseas High-level Experts Introduction	海外高层次人才引进计划	Qingdao City
Program for Overseas High-level Talents Introduction	河南省海外高层次人才引进计划	Henan Province
100 Talents Plan of Henan Province	河南省百人计划	Henan Province
Henan Province International Talents Cooperation Program	河南省国际人才合作项目计划	Henan Province
Distinguished Professor of Henan Province	河南省特聘研究员	Henan Province
100 Talents Plan on Overseas High-level Talents Introduction	湖北省引进海外高层次人才百人计划	Hubei Province
Chime Bell Award by Hubei Provincial People’s Government	湖北省政府‘编钟奖’	Hubei Province
Chu Talents Program	湖北省‘楚才工程’	Hubei Province



Talent program name (English)	Talent program name (Chinese)	Supervising agency
Talent Introduction Program on High-Levels, Elites, Top-Leadership, and Urgently Needed People	湖北省高精尖缺英才引智工程	Hubei Province
Huanghe Talents Plan	武汉市黄鹤英才计划	Wuhan City
Wuhan Yellow Crane Friendship Award	武汉市黄鹤友谊奖	Wuhan City
Wuhan City Partner Program	武汉‘城市合伙人’计划	Wuhan City
3551 Optics Valley Talent Schema	3551 光谷人才计划	Wuhan City
100 Talents Plan on Overseas High-level Talents Introduction	湖南省引进海外高层次人才百人计划	Hunan Province
Guangdong Friendship Award	广东省南粤友谊奖	Guangdong Province
Program for Innovative Research Teams and Leading Talents Introduction	广东省引进创新科研团队和领军人才项目	Guangdong Province
Special Support Plan for High-level Talents	广东特支计划	Guangdong Province
Sail Plan for Talents Development	扬帆计划	Guangdong Province
Funding Scheme for Short-term Overseas Experts in Guangdong	海外专家来粤短期工作资助计划	Guangdong Province
Guangzhou Friendship Award	广州市羊城友谊奖	Guangzhou City
Advanced Foreign Experts Introduction Plan	广州市高端外国专家引进项目	Guangzhou City
Guangzhou Talents Green Card	广州市人才绿卡	Guangzhou City
Overseas Talents Entrepreneurial Encouragement ‘Kapok Plan’	广州市鼓励海外人才来穗创业‘红棉计划’	Guangzhou City
100 Talents Plan of Entrepreneurial and Innovative Leading Talents	羊城创新创业领军人才支持计划	Guangzhou City
Peacock Program for Overseas High-level Talents Introduction	深圳市海外高层次人才孔雀计划	Shenzhen City
Guangxi Talent Highland	广西人才小高地	Guangxi Zhuang Autonomous Region
Guangxi BaGui Scholars	广西八桂学者	Guangxi Zhuang Autonomous Region
Guangxi Specially Invited Experts	广西特聘专家	Guangxi Zhuang Autonomous Region
100 Talents Plan on the Introduction of High-level Overseas Talents for Colleges and Universities in Guangxi	广西高校引进海外高层次人才百人计划	Guangxi Zhuang Autonomous Region
Measures of Hainan Province to Introduce High-level Innovative Talents	海南省引进高层次创新创业人才办法	Hainan Province
Measures for the Implementation of Scientific and Technological Innovation Teams in Hainan	海南省引进科技创新团队实施办法	Hainan Province

Talent program name (English)	Talent program name (Chinese)	Supervising agency
Measures for the Implementation of the Introduction of Overseas High-level Talents in Hainan	海南省引进海外高层次人才实施办法	Hainan Province
Coconut Island Awards of Hainan Province	海南椰岛奖	Hainan Province
Program for Hundred Overseas High-level Talents Aggregation	重庆市百名海外高层次人才聚集计划	Chongqing Municipality
Chongqing Friendship Award	重庆友谊奖	Chongqing Municipality
Par-Eu Scholars Program	两江学者计划	Chongqing Municipality
Chongqing Talents Recruitment Hongyan Plan	重庆市引进海内外高层次人才鸿雁计划	Chongqing Municipality
Sichuan Friendship Award	四川省天府友谊奖	Sichuan Province
1,000 Talents Plan of Sichuan Province	四川省千人计划	Sichuan Province
Tianfu Recruitment Program of High-end Foreign Experts	天府高端引智计划	Sichuan Province
Jinsha Friendship Award	金沙友谊奖	Chengdu City
Talents Introduction Plan of Chengdu	成都市人才计划	Chengdu City
100-1,000-10,000 Talents Introduction Project	贵州省‘百千万’人才引进计划	Guizhou Province
The 100 Talents Plan on Overseas High-level Talents Recruitment	云南省海外高层次人才引进计划‘百人计划’	Yunnan Province
Yunnan Friendship Award	云南省外国专家彩云奖	Yunnan Province
Yunnan Provincial High-end Foreign Experts Project	云南省高端外国专家项目	Yunnan Province
Program for High-end Scientific and Technological Talents Recruitment	云南省高端科技人才引进计划	Yunnan Province
100 Talents Plan of Shaanxi Province	陕西省百人计划	Shaanxi Province
‘Sanqin’ Friendship Award	陕西省‘三秦友谊奖’	Shaanxi Province
Shaanxi Provincial Top Foreign Experts Project	陕西省高端外国专家项目	Shaanxi Province
5211 Program for Talents Introduction	西安市5211引才计划	Xi’an City
Xi’an Friendship Award	西安友谊奖	Xi’an City
Xi’an Excellent Foreign Experts Award	西安市优秀外国专家奖	Xi’an City
Program for Overseas High-level Talents	西安市海外高层次人才项目	Xi’an City
Gansu Provincial Government Foreign Experts ‘Dunhuang’ Award	甘肃省‘敦煌奖’项目	Gansu Province
Gansu Important Foreign Experts Introduction Program	甘肃省重点外国专家引进项目	Gansu Province
Gansu Overseas High-level Talents Introduction Program	甘肃省海外高层次人才引进计划	Gansu Province
Qinghai Provincial High-end and Innovative 1,000 Talents Plan	青海省高端创新人才千人计划	Qinghai Province

Talent program name (English)	Talent program name (Chinese)	Supervising agency
Ningxia Liupan Mountain Friendship Award	宁夏回族自治区六盘山友谊奖	Ningxia Hui Autonomous Region
100 Talents Plan for Talents Introduction	宁夏回族自治区海外引才百人计划	Ningxia Hui Autonomous Region
'Tianshan Prize' of People's Government of Xinjiang Uygur Autonomous Region	新疆维吾尔自治区人民政府'天山奖'	Xinjiang Uygur Autonomous Region
High-level Personnel Introducing Project of Xinjiang Uygur Autonomous Region	新疆维吾尔自治区高层次人才引进工程	Xinjiang Uygur Autonomous Region
Distinguished Experts of Xinjiang Production and Construction Corps	兵团特聘专家	Xinjiang Uygur Autonomous Region
Oasis Friendship Award of Xinjiang Production and Construction Corps	兵团绿洲友谊奖	Xinjiang Uygur Autonomous Region

# Appendix 2: Cases and alleged cases of espionage, fraud and misconduct

*Co-authored with Alexandra Pascoe*

## **Charles Lieber (arrested and charged 2020)**

Dr Charles Lieber, chair of the Department of Chemistry and Chemical Biology at Harvard University, was arrested in January 2020 and charged with one count of making a fraudulent statement regarding his participation in China's Thousand Talents Plan.<sup>160</sup> The criminal complaint alleges that Lieber was a 'Strategic Scientist' at Wuhan University of Technology (WUT) from around 2012 to 2017 and a participant in the Thousand Talents Plan.<sup>161</sup> Under Lieber's Thousand Talents Plan contract, WUT paid Lieber US\$50,000 per month and living expenses of up to ¥1 million and awarded him more than \$1.5 million to establish the WUT-Harvard Joint Nano Key Laboratory at WUT.<sup>162</sup> Lieber may have been recruited by Mai Liqiang, a former student, who is a Changjiang Scholar and Director of the Nano Key Lab at WUT.<sup>163</sup> While Lieber's Thousand Talents Plan contract and Strategic Scientist agreement officially came to an end in 2015, according to the criminal complaint, it appears that the agreements remained in place until well after that.<sup>164</sup> Payment of salary allegedly continued into 2017, and email exchanges indicate that Lieber may have executed a new agreement with WUT at some point in late 2016 or early 2017.<sup>165</sup> It's alleged that, in 2018 and 2019, Lieber failed to disclose his involvement in the talent plan and his affiliation with WUT to US law enforcement officials and federal funding agencies.<sup>166</sup> Since 2008, Lieber has received more than US\$15 million in grant funding from the National Institutes of Health (NIH) and the Department of Defense.<sup>167</sup>

## **Hu Anming (胡安明) (arrested and charged February 2020)**

Hu Anming is a Chinese scientist who has been charged by the US Department of Justice with three counts of wire fraud and three counts of making false statements.<sup>168</sup> From 2013, he worked as an associate professor at the University of Tennessee, Knoxville (UTK) and received research grants from US Government agencies, including the Department of Energy and the National Aeronautics and Space Administration (NASA).<sup>169</sup> Since 2013, Hu has also been a faculty member at the Institute of Laser Engineering at the Beijing University of Technology (BJUT).<sup>170</sup> In 2012, he was selected for the 7th round of the short-term Beijing Overseas High-Level Talents Plan (北京市海外高层次人才聚集工程计划) and, in 2013 he was chosen for the 9th round of the long-term Beijing Overseas High-Level Talents Plan.<sup>171</sup> In 2016, according to the indictment, Hu concealed and falsely represented his affiliation with BJUT to UTK.<sup>172</sup> This led UTK to falsely certify to NASA and its contractors that UTK was in compliance with federal law that prohibits NASA from using federally appropriated funds on projects in collaboration with China or Chinese universities.<sup>173</sup> Hu is accused of defrauding NASA by hiding his relationship with the Chinese university while receiving funding from NASA.<sup>174</sup> If convicted, he faces up to 20 years in federal prison and a fine of up to US\$250,000 on each of the wire fraud counts, and up to five years prison on each of the false statement counts.<sup>175</sup>

### **James Patrick Lewis (pleaded guilty March 2020)**

James Patrick Lewis is an American physicist who has pleaded guilty to Federal Program Fraud for defrauding his employer.<sup>176</sup> Lewis was a tenured professor in the Physics Department of West Virginia University from 2006 to August 2019.<sup>177</sup> In July 2017, he was recruited into China's Thousand Talents Plan, and the Chinese Academy of Sciences (CAS) agreed to employ him for at least three years and provide a living subsidy of ¥1 million (A\$245,000), a research subsidy of ¥4 million (A\$980,000) and a salary of ¥600,000 (A\$147,000).<sup>178</sup> In March 2018, he submitted a fraudulent parental leave request for the autumn semester of 2018 in order to work in China. West Virginia University granted the request, and Lewis was able to work in China for three weeks while receiving his full salary from the university (US\$20,189).<sup>179</sup> As part of his plea agreement, Lewis has agreed to repay that amount to the university.<sup>180</sup> Lewis could face a sentence of up to 10 years in prison and a \$250,000 fine.<sup>181</sup>

### **Texas A&M University System cases (reported in 2020)**

According to a 2020 *Wall Street Journal* report, officials in the Texas A&M University System discovered that more than 100 staff were tied to PRC talent-recruitment programs, but only five have disclosed their participation.<sup>182</sup> A plant pathologist at Texas A&M told officials that they had been offered US\$250,000 in compensation and more than \$1 million in seed money to start a lab in China through a talent program, but ultimately rejected the offer.<sup>183</sup> While the university system hasn't sacked any of the researchers, some agreed to quit talent programs.<sup>184</sup>

### **Cao Guangzhi (曹光植) (sued 2019)**

See page 22.

### **Moffitt Cancer Center dismissals (2019)**

Moffitt Cancer Center, a research institution at the University of South Florida, forced six faculty members, including its CEO, to resign in late 2019 over their participation in the Thousand Talents Plan.<sup>185</sup> Moffitt alleges that the scientists failed to fully disclose their affiliations with institutions in China and their receipt of personal payments to bank accounts in China under the plan. An unpublished report by Moffitt claims that Dr Sheng Wei (魏升) was the centre's first participant in the Thousand Talents Plan and went on to recruit four of his colleagues to Tianjin Medical University, of which he is an alumnus, through the plan.<sup>186</sup> A sixth employee joined the Thousand Talents Plan separately. Wei led Moffitt's engagement with Tianjin Medical University, which included the establishment of a collaborative research centre.<sup>187</sup>

Two of those who resigned have disputed the allegations against them.<sup>188</sup> One of them has stated that Wei handled her application to the Thousand Talents Plan, and claims that documents relating to the establishment of a Chinese bank account in her name include a forged signature.<sup>189</sup>

### **Kang Zhang (张康) (resigned 2019)**

Kang Zhang is the former chief of eye genetics at Shiley Eye Institute of the University of California San Diego (UCSD).<sup>190</sup> Zhang resigned from his position in July 2019 following an investigation into his nondisclosure of a company he owns in China and his participation in a PRC talent-recruitment program.<sup>191</sup> Zhang started working at UCSD in 2008. During his time there, he received around US\$10 million (A\$13.8 million) in NIH grants. In 2010, he accepted a role at Sichuan University as a Thousand Talents Plan professor.<sup>192</sup> In 2012, he founded Guangzhou Kangrui Biological Pharmaceutical Technology Co. (康瑞生物科技有限公司) in China.<sup>193</sup> The focus of the company overlapped with the research Zhang was performing at UCSD.<sup>194</sup> While his attorney has stated that Zhang's companies have long been known to UCSD, an investigation by *inewssource* found that his companies and involvement in the Thousand Talents Plan weren't disclosed to the US Government or UCSD.<sup>195</sup> Zhang is currently a professor at Macau University of Science and Technology.<sup>196</sup>

### **Xiang Haitao (向海涛) (arrested and charged 2019)**

Xiang Haitao is a Chinese citizen and agricultural scientist charged on one count of conspiracy to commit economic espionage, three counts of economic espionage, one count of conspiracy to commit theft of trade secrets and three counts of theft of trade secrets.<sup>197</sup> From 2008 to 2017, Xiang worked at a subsidiary of Monsanto called the Climate Corporation, which develops software platforms to improve agricultural productivity. In April 2016, he travelled to China to meet with recruiters for the Hundred Talents Plan (百人计划) and to interview for a position at the Nanjing Institute of Soil Science at CAS. According to Xiang's indictment, in his application for the Hundred Talents Plan, he described the skills and work he could offer CAS, which could only be accomplished with the use of a proprietary Monsanto technology called 'Nutrient Optimiser'.<sup>198</sup> Later that year, Xiang was selected for the Hundred Talents Plan.<sup>199</sup> In 2017, he accepted the job at the Nanjing Institute of Soil Science and resigned his position at Monsanto.<sup>200</sup> He then bought a one-way ticket to China and was subsequently arrested at O'Hare Airport in Chicago attempting to board a flight to Shanghai.<sup>201</sup> His laptop was found to contain proprietary Monsanto files related to the nutrient enhancement program that he was working on.<sup>202</sup>

### **You Xiaorong (游晓蓉) (charged February 2019)**

You Xiaorong, who is a Chinese-born American citizen, was arrested and indicted in February 2019 for allegedly stealing trade secrets from two US companies.<sup>203</sup> From 2012 to mid-2017, she was employed as Principal Engineer for Global Research at Coca-Cola in Atlanta, Georgia.<sup>204</sup> She then worked as a manager for a company in Tennessee until her arrest in 2018. You allegedly conspired with a Chinese national to steal trade secrets relating to bisphenol-A-free chemical technologies from both companies for use by Chinese company Jinhong Group (金泓集团).<sup>205</sup> In exchange, the company is said to have offered employment at the firm and assistance in obtaining the Thousand Talent annual award and the 'Yishi-yiyi' (一事一议) award from the Shandong Provincial Government.<sup>206</sup> In mid-2017, the company sponsored You's application to China's Thousand Talents Program (千人计划) and, later in 2017, to the Yishi-Yiyi project, in order to receive funding from the Chinese Government to develop the stolen bisphenol-A-free technology to be used by the company.<sup>207</sup>



### **Turab Lookman (charged 2019; pleaded guilty January 2020)**

Turab Lookman is an American physicist and citizen who has pleaded guilty to a charge of making a false statement to a government investigator about his involvement in China's Thousand Talents Program.<sup>208</sup> While he was initially indicted on three counts, a plea deal with prosecutors resulted in two of the charges being dropped.<sup>209</sup> From 1999, Lookman worked at the Los Alamos National Laboratory (a Department of Energy facility that developed the first atomic bomb). He admitted to lying to a laboratory counterintelligence investigator in 2018 by denying that he'd been recruited and had applied for the Thousand Talents Plan.<sup>210</sup> Federal prosecutors deemed Lookman a serious national security threat because his high-level clearance provided him access to critical facilities and US nuclear secrets.<sup>211</sup> He's awaiting sentencing and could face up to five years in prison and a US\$250,000 fine.

### **Zhongsan Liu (柳忠三) (arrested and charged September 2019)**

Zhongsan Liu is a Chinese Government employee who has been charged with conspiracy to fraudulently obtain US visas for Chinese Government employees.<sup>212</sup> Liu heads the New York office of the China Association for International Exchange of Personnel (CAIEP, 中国国际人才交流协会), which is a proxy for China's State Administration of Foreign Experts Affairs. According to the criminal complaint, from around 2017 to 2019, Liu sought to procure research scholar visas (J1 visas) for CAIEP employees under the false pretence that they were entering the US to conduct research at US universities.<sup>213</sup> The real purpose was to carry out full-time talent-recruitment work.<sup>214</sup> It's been reported that the University of Georgia and the Confucius Institute at the University of Massachusetts Boston were contacted to sponsor visas.<sup>215</sup> In 2018, working with other Chinese Government employees in the US, Liu was able to obtain a J1 visa for one CAIEP employee who worked to recruit scientific experts until at least June 2019.<sup>216</sup>

### **'Franklin' Feng Tao (陶丰) (charged and arrested August 2019)**

Franklin Feng Tao is a Chinese-born US permanent resident who has been indicted on three counts of fraud. Tao is a professor at the Center for Environmentally Beneficial Catalysis at the University of Kansas. It's alleged that he signed a five-year, full-time contract with Fuzhou University in May 2018 as part of the Changjiang Scholars program (长江学者奖励计划), which is a talent-recruitment scheme run by China's Ministry of Education.<sup>217</sup> He's accused of failing to disclose that to the University of Kansas, as required by its conflict-of-interest policy. He continued to work and conduct research at the university, funded by Department of Energy grants and National Science Foundation grants.<sup>218</sup> If convicted of all charges, Tao could face a maximum of 30 years in prison and a fine of up to US\$750,000.<sup>219</sup>

### **University of Florida resignations (2019)**

Four faculty members from the University of Florida left the school following a letter from the NIH alerting the university to potential undisclosed foreign research funding. A report provided by the university details how all four faculty members failed to disclose their participation in Chinese recruitment programs, their work for Chinese research institutions and their acceptance of funding from China.<sup>220</sup> The matter is still subject to ongoing federal investigation, and the names of the four haven't been released.

'Faculty 1' has been identified as Tan Weihong (谭蔚泓), who worked as a professor of chemistry at the University of Florida from 1996.<sup>221</sup> The report states that he received Chinese Government grants, was the vice president of a Chinese university, ran his own lab and was also affiliated with another Chinese university as the dean of an institute. This matches Tan's CV. He's been employed at Hunan University since 2000, when he was selected as a Changjiang Scholar.<sup>222</sup> In 2009, Tan was selected for the Thousand Talents Plan as a distinguished professor at Hunan University.<sup>223</sup> In 2017, he was appointed Vice President of Hunan University and he is also the Director of the State Key Laboratory of Chemical Biosensors and Metrology.<sup>224</sup> Tan is also the Dean of the Institute of Molecular Medicine at the Shanghai Jiaotong University School of Medicine. The NIH alerted the University of Florida to those activities in January 2019, and 'Faculty 1' resigned following an internal investigation.

'Faculty 2' began working at the University of Florida in 2014. The report revealed that he founded, co-owned and served as CEO of a China-based company while working at the university. He was recruited into the Thousand Talents Program in 2017, which may have included an undisclosed financial stipend. 'Faculty 2' also resigned following the investigation.

'Faculty 3' was a postdoctoral associate and student at the University of Florida who worked part time in the College of Medicine from 2012. It was found that he had held a full-time appointment at a Chinese university since at least 2017 and participated in a Chinese recruitment program. He also received at least one grant from the Chinese Government. 'Faculty 3' was sacked in December 2019.

The fourth university employee resigned before the university could properly investigate but left amid similar allegations, according to the report.

### **Li Xiaojiang (李晓江) (employment terminated May 2019; charged November 2019)**

Li Xiaojiang is a Chinese-born US biologist who has been charged with defrauding the US Government by receiving grants from the NIH while also taking an undisclosed salary from a Chinese institution.<sup>225</sup> Li and his wife, Li Shihua, worked at Emory University in Atlanta, Georgia, for 23 years before their employment was terminated in May 2019 for failing to 'fully disclose foreign sources of research funding and the extent of their work for research institutions and universities in China'.<sup>226</sup> Li was selected for the Thousand Talents Plan in 2010 and became a Distinguished Professor of the Institute of Genetics and Developmental Biology at CAS, while also maintaining a full-time role at Emory.<sup>227</sup> He received three NIH grants in 2015 while simultaneously receiving an annual salary from CAS in 2015 and 2016, and was allegedly out of the country for most of 2015. Li is charged with defrauding the US Government of US\$38,888 in salary and fringe benefits.<sup>228</sup> In 2016, he took up a professorship at Jinan University after his affiliation with CAS ended.<sup>229</sup>

### **Zheng Xiaoqing (郑小清) (arrested 2018; charged 2019)**

Zheng Xiaoqing is a Chinese-born American citizen and former General Electric employee. He was arrested in 2018 and charged by the US Government with economic espionage and theft of trade secrets in April 2019.<sup>230</sup> In 2016, he worked with business partners to establish two aerospace companies in China. Through those companies, he allegedly sought to commercialise trade secrets stolen from General Electric that he encrypted in an image of a sunrise.<sup>231</sup>

In 2012, Zheng was recruited to a subsidiary of the Aviation Industry Corporation of China, which is a state-owned defence conglomerate, and the Thousand Talents Plan while retaining his position with

General Electric.<sup>232</sup> Shortly before his arrest, he was also named as a senior member of the Jiangsu Overseas Exchange Association (江苏省海外交流协会), which is a united front organisation run by the provincial Overseas Chinese Affairs Office.<sup>233</sup>

Zheng has been accused by US cybersecurity firm CrowdStrike of being part of a Jiangsu State Security Bureau operation to steal jet turbine technology.<sup>234</sup> His arrest happened in the same year that a state security officer, who attempted to steal General Electric technology, and one of his assets were charged by the US Government.<sup>235</sup> Zheng also spoke at the Nanjing University of Aeronautics and Astronautics College of Energy and Power Engineering in 2016,<sup>236</sup> which is a year before the Jiangsu State Security Bureau worked with the college in an attempt to recruit another General Electric engineer.<sup>237</sup>

### **University of Texas MD Anderson Cancer Center sackings (2018)**

Following an effort launched by the NIH in 2018, the MD Anderson Cancer Center at the University of Texas moved to terminate the employment of three scientists in April 2019 for sharing confidential information and failing to disclose foreign ties.<sup>238</sup> Internal investigations have revealed infractions of ethics policies relating to the sharing of confidential information about research grants, as well as failure to disclose foreign interests, collaborations and payments.<sup>239</sup> While two of the scientists resigned before they were sacked, the third challenged the proceedings.<sup>240</sup> A fourth scientist was reportedly reprimanded, but not terminated, while another MD Anderson researcher, believed to be Xie Keping, is still under investigation.<sup>241</sup>

### **Xie Keping (谢克平) (resigned 2018)**

Xie Keping is a Chinese-born oncologist and gastroenterologist currently under investigation for allegedly funnelling advanced research from the Houston University of Texas MD Anderson Cancer Center to the Chinese Government.<sup>242</sup> Xie began at the centre in 1990 and stepped down from his position in April 2018.<sup>243</sup> He was then hired by the University of Arizona in July 2018 but was placed on administrative leave when he was arrested on allegations of possession of child pornography in August that year. The charges were dismissed in November.<sup>244</sup> It's been reported that Xie had been a member of the Thousand Talents Plan; however, the link to his page on the Thousand Talents Plan website no longer works.<sup>245</sup> Xie served as the Executive Vice President and President of the China Association of Experts in the US in 2007–08 and 2008–09, respectively.<sup>246</sup> According to the Chinese Civic Center website, of which Xie had been Deputy CEO since 2009, Xie is a visiting professor at Shanghai Jiaotong University, Shanghai Tongji University, Jiangsu University, Suzhou University, Xi'an Jiaotong University and Harbin Medical University.<sup>247</sup> The website also states that, in 1999, he was part of the Chun Hui Plan (春晖计划) of the Ministry of Education for the 'returning American medical expert reporting team', and, in 2008, was the head of the Chun Hui Plan 'cancer research and clinical expert visiting team'.<sup>248</sup>

### **Zhang 'Percival' Yiheng (张以恒) (charged 2017; convicted 2019)**

Zhang Yiheng is a Chinese-born American citizen who was arrested by the FBI on 20 September 2017, and was found guilty of committing federal grant fraud, making false statements and obstruction by falsification in September 2019.<sup>249</sup> At the time of the offences, Zhang was working for the Virginia

Polytechnic Institute and State University (Virginia Tech) and a company he had founded, Cell-Free Bioinnovations (CFB). From 2014, he was also a researcher at the Tianjin Institute of Industrial Biotechnology (TIIB) at CAS. Over the period from 2013 to 2016, Zhang submitted fraudulent grant proposals to the National Science Foundation and the Department of Energy.<sup>250</sup> Evidence presented at his trial indicated that the grant proposals were for research that Zhang had already conducted in China.<sup>251</sup> Funding was instead funnelled to CFB projects not specified as part of the funding requests, and those projects were completed by Virginia Tech postdoctoral students Zhu Zhiguang (朱志光) and You Chun (游淳), who were also working at CFB and TIIB.<sup>252</sup> In 2015, You was selected for the National Youth Thousand Talents Plan (国家青年千人计划), which is a component of the Thousand Talents Plan. In 2016, Zhu was recruited into the Hundred Talents Plan of CAS (中国科学百人计划) and in 2017 also joined the Tianjin Youth Thousand Talents Plan (天津市青年千人计划). In 2017, Zhang Yiheng was selected for the Tianjin Thousand Talents Plan (天津千人计划) and the Hundred Talents Plan of CAS (中国科学百人计划). That year, Zhang was also a candidate for the National Thousand Talents Plan (千人计划).<sup>253</sup>

### **Shi Shan (石山) (arrested 2017; convicted 2019; sentenced 2020)**

Shi Shan is a Chinese-born, US citizen who was sentenced to 16 months in prison and ordered to forfeit more than US\$330,000 (A\$458,000) after being found guilty of conspiracy to steal trade secrets.<sup>254</sup> He's the president of CMB International and is a shareholder of its parent company, Taizhou CBM – Future New Material Science and Technology Co. Ltd. (CBMF), which is located in Zhejiang Province.<sup>255</sup> CBFM agreed to assist him in applying for the Thousand Talents Plan.<sup>256</sup> In his application, Shi wrote that he would build 'China's first deep sea drilling buoyance material production line' by moving 'to digest/absorb the relevant, critical US technology'. In order to achieve this, he conspired to steal trade secrets by poaching employees from the US subsidiary of Swedish company Trelleborg and enticing them to bring technical data to his company.<sup>257</sup> Former and current employees were targeted for hiring for the purpose of advancing CBFM's capability to manufacture syntactic foam. The information taken from Trelleborg was patented and used to create a syntactic-foam manufacturing process in China, then offered in bids to PRC-controlled institutions such as the People's Liberation Army and the Chinese National Offshore Oil Corporation.<sup>258</sup> Shi was arrested along with five other individuals in the US after he and CBM International attempted to market related technology in the District of Columbia.<sup>259</sup>

### **Wang Chunzai (王春在) (arrested and charged 2017; pleaded guilty; sentenced 2019)**

Wang Chunzai is a Chinese-born American climate scientist who has been sentenced to a term of time served for knowingly and wilfully receiving a salary from the PRC for work being undertaken in the US.<sup>260</sup> He worked at the Atlantic Oceanographic and Meteorological Laboratory of the National Oceanic and Atmospheric Administration (NOAA), which is an agency of the US Department of Commerce, from 2000 to 2016.<sup>261</sup> The indictment states that, beginning in 2010, Wang received payments for his work at NOAA from the PRC's Changjiang Scholars program, 973 Plan and Thousand Talents Plan. He was selected as a Changjiang Scholar at Ocean University of China in 2009.<sup>262</sup> In 2016, he was also selected for the Hundred Talents Plan of CAS (百人计划) and returned to China to work at the South China Sea Institute of Oceanology at CAS.<sup>263</sup> Following sentencing in the US, Wang returned to China and now works as a researcher at CAS.<sup>264</sup>

### **Pang Wei (庞慰) (charged May 2015)**

Pang Wei is a Chinese scientist who has been charged by the US Department of Justice with industrial espionage.<sup>265</sup> He's one of six Chinese scientists accused of stealing thin-film bulk acoustic resonator (FBAR) radio technology from two US companies to benefit Tianjin University.<sup>266</sup> Pang began working at Avago Technologies in Colorado in 2005. According to the indictment, in 2008, Tianjin University allegedly agreed to support Pang and his co-conspirators in establishing an FBAR technology manufacturing facility in China as they continued working for US companies.<sup>267</sup> They developed a scheme to obscure the source of trade secrets, and, in mid-2009, Pang resigned from his US company to accept a professorship at Tianjin University.<sup>268</sup> He reportedly joined the Thousand Talents Plan in 2014.<sup>269</sup> The indictment alleges that Pang and his co-conspirators stole confidential and proprietary information that was shared with Tianjin University, which led to the formation of a joint venture (ROFS Microsystems) that produces FBARs for civilian and military use.<sup>270</sup> One co-conspirator, Zhang Hao, was arrested in Los Angeles after arriving on a flight from China in May 2015, while Pang and the other suspects are believed to be in China.<sup>271</sup> Pang is currently an expert at the Nanchang Microtechnology Research Institute at Tianjin University.<sup>272</sup>

### **Long Yu (arrested 2014; pleaded guilty 2016; convicted 2017)**

Long Yu is a Chinese citizen who pleaded guilty to the theft of trade secrets and unlawful export in 2016.<sup>273</sup> According to a US Senate Permanent Subcommittee on Investigations report on CCP talent-recruitment programs, he was the target of one of the earliest FBI criminal investigations of Thousand Talents Plan participants.<sup>274</sup> Long was an engineer at United Technologies Research Center (UTRC), a US defence company, and worked on engines for the F-22 and F-35 fighter jets. In 2013, he began interacting with CAS's Shenyang Automation Institute (SAI, 沈阳自动化研究所) and referenced export-controlled materials and his defence work in his job application to SAI. He joined SAI in 2014 and brought with him a hard drive belonging to UTRC that contained trade secrets and export-controlled technology. He was arrested in November 2014 on his way to China and convicted in 2017 to time served after pleading guilty.<sup>275</sup>

### **Zhao Huajun (赵华军) (arrested and charged March 2013; sentenced August 2013)**

Zhao Huajun is a Chinese scientist who was sentenced by a US court to time served for accessing a computer without authorisation. He was hired as a research scientist at the Medical College of Wisconsin Cancer Center in August 2011.<sup>276</sup> In 2013, he was charged with economic espionage after a colleague reported that vials of C-25 compound, a potential anti-cancer agent, were missing.<sup>277</sup> The criminal complaint alleged that Zhao used his employment and position to illegally acquire patented cancer research material that he planned to pass off as his own and provide to Zhejiang University in China.<sup>278</sup> However, the vials were never found, and Zhao pleaded guilty to a reduced charge of illegally downloading research data and obtaining information worth more than US\$5,000.<sup>279</sup> In September 2013, a month after his sentencing, Zhao was recruited by Zhejiang Chinese Medicine University through the Qianjiang Scholars (钱潜江学者) program.<sup>280</sup> He's currently the director of the university's Institute of Chinese Medicine Pharmacology.<sup>281</sup> In 2014, Zhao was also selected as a 'first-level trainee' of Zhejiang Province's 151 Talent Plan.<sup>282</sup>

## **Yang Chunlai (杨春来) (charged 2011; convicted 2015)**

See page 22.

## **Liu Ruopeng (刘若鹏) (investigated 2010)**

Chinese entrepreneur Liu Ruopeng has been accused by the FBI and his Duke University PhD supervisor of stealing technology.<sup>283</sup> Liu's supervisor was Professor David Smith, a world-leading expert on metamaterials that can manipulate electromagnetic radiation.<sup>284</sup> Smith's research received funding from the US Department of Defense because of its potential military applications.<sup>285</sup>

As a student at Smith's laboratory between 2006 and 2009, Liu collaborated with his former teacher, Professor Cui Tiejun of China's Southeast University.<sup>286</sup> Cui was in charge of a metamaterials laboratory established under the Chinese Government's Project 111 talent-recruitment scheme.<sup>287</sup> Liu encouraged Smith to work with Cui and facilitated their collaboration.<sup>288</sup> According to an FBI report, Liu shared information with Cui and invited his team to Smith's laboratory. The visitors recorded details of the laboratory and cloned it in China.<sup>289</sup>

A former FBI official told *NBC News* that the technologies Liu took to China were being targeted by the Chinese Government and that '[The FBI] know that certain government officials and operatives met with him while he was in the United States.' An FBI investigation into Liu's conduct started in 2010 but was later closed due to a lack of evidence.<sup>290</sup>

In 2009, Liu returned to China and established the Shenzhen Dapeng Kuang-Chi Technology Co. Ltd, which develops technologies in areas such as electrical materials, new energy, communication, computer engineering and bioengineering.<sup>291</sup> Liu's team, funded by Shenzhen's Peacock Program for Overseas High-Level Talents, was reportedly one of the first research teams recruited from overseas by Guangdong Province.<sup>292</sup> A research institute tasked to develop cross-disciplinary advanced technology and applications was also set up, and Liu was appointed as its president.<sup>293</sup> By 2016, Liu was worth an estimated US\$2.6 billion.<sup>294</sup> His company has collaborated with Chinese state-owned defence conglomerates.<sup>295</sup> In 2017, Liu said that his company had been a 'military-civil fusion enterprise' from its inception.<sup>296</sup> He's now an executive council member of the China Academy for Science and Technology and a member of the National People's Congress and the CCP.<sup>297</sup> He also holds senior positions in several united front groups, such as the All-China Federation of Returned Overseas Chinese.<sup>298</sup>

## **Noshir Gowadia (arrested October 2005; indicted 2007; convicted 2010; sentenced 2011)**

Noshir Gowadia is a US citizen who was sentenced to 32 years in prison for communicating classified national defence information to the PRC, illegally exporting military technical data, money laundering, filing false tax returns and other offences.<sup>299</sup> Gowadia worked as part of an ultra-secret special access program for B-2 Spirit bomber developer and manufacturer Northrop Aircraft Inc. from 1968 to 1989.<sup>300</sup> He later worked as a contractor involved in classified research for the US Government on missiles and aircraft until 1997, when his security clearance was terminated.<sup>301</sup> He also worked at the Los Alamos National Laboratory in the 1990s before establishing his own consulting company.<sup>302</sup> From July 2003 to June 2005, Gowadia took six trips to China and revealed classified information when providing design, test support and test data analysis services in order to assist the PRC with its cruise missile system.<sup>303</sup>



His design for the PRC of a low-signature cruise missile exhaust system was capable of rendering a Chinese cruise missile resistant to detection by infrared missile trackers.<sup>304</sup> He was paid at least US\$110,000 (A\$153,000) by the Chinese Government and used three foreign entities he had established to hide, launder and disguise the income he received.<sup>305</sup>

# Notes

- 1 Those conditions include lucrative wages, the creation of tailored venture capital firms and dedicated technology parks. For an influential and detailed study of the domestic infrastructure of PRC technology-transfer efforts, as well as much of its overseas activities through the State Administration of Foreign Experts Affairs, in particular, see Bill Hannas, James Mulvenon, Anna Puglisi, *Chinese industrial espionage: technology acquisition and military modernisation*, Routledge, London and New York, 2013.
- 2 See, for example, ‘致公党江苏省委首届“引凤工程”成果丰硕’ [Zhigong Party Jiangsu Committee’s first ‘Attracting Phoenixes Project’ has bountiful results], Jiangsu Committee of the Zhigong Party, 2 January 2011, [online](#); Tang Jingli [唐景莉], ‘筑巢引凤聚才智 国际协同谋创新’ [Building nests to attract phoenixes and gather talents and knowledge, international collaboration for innovation], Ministry of Education, 5 April 2012, [online](#); ‘筑巢引凤”聚人才 浙江举行“人才强企”推介会’ [Building nests to attract phoenixes and gather talents, Zhejiang holds the ‘strong talent enterprises’ promotional event], *Zhejiang Online*, 18 July 2019, [online](#).
- 3 See Alex Joske, *The party speaks for you: foreign interference and the Chinese Communist Party’s united front system*, ASPI, Canberra, June 2020, [online](#).
- 4 Xi Jinping [习近平], ‘习近平：在欧美同学会成立100周年庆祝大会上的讲话’ [Xi Jinping: Speech at the celebration of the 100th anniversary of the founding of the Western Returned Scholars Association], *Chinese Communist Party News*, 21 October 2013, [online](#).
- 5 ‘习近平：瞄准世界科技前沿引领科技发展方向抢占先机迎难而上建设世界科技强国’ [Xi Jinping: Set sights on the cutting-edge of world science and technology and guide the direction of technological development; seize this strategic opportunity and meet the challenge of building a strong country in terms of science and technology], *Xinhua*, 28 May 2018, [online](#).
- 6 Elsa Kania, ‘Made in China 2025, explained’, *The Diplomat*, 2 February 2019, [online](#); PRC State Council, ‘中国制造2025’ [Made in China 2025], [www.gov.cn](#), 8 May 2015, [online](#); China’s National Medium-Long Term Science and Technology Development Plan (2006–2020) highlighted the goal of indigenous innovation: [online](#).
- 7 China’s 2017 State Council Plan on Building a National Technology Transfer System describes talent recruitment as a form of technology transfer. See State Council, ‘国家技术转移体系建设方案’ [Plan on Building a National Technology Transfer System], [www.gov.cn](#), 15 September 2017, [online](#).
- 8 ‘我国留学回国人员已达265.11万人’ [The number of Chinese returning from studying abroad has reached 2,651,100], *Economic Daily*, 12 April 2017, [online](#).
- 9 ‘中国驻外使领馆：万流归海引人才 不遗余力架桥梁’ [PRC overseas mission: amid the flow of tens of thousands of talents returning to China, we do not spare energy in building bridges], [www.gov.cn](#), 4 June 2014, [online](#).
- 10 These estimates are based on the conservative assumption that 60,000 individuals have been recruited from abroad through CCP talent-recruitment programs since 2008. Data on 3,500 participants in the Thousand Talents Plan was used to estimate the proportion recruited from each country.
- 11 Clive Hamilton, Alex Joske, ‘United Front activities in Australia’, Parliamentary Joint Committee on Intelligence and Security, 2018, [online](#); Ben Packham, ‘Security experts warn of military threat from Chinese marine project’, *The Australian*, 10 February 2020, [online](#); Alex Joske, ‘The company with Aussie roots that’s helping build China’s surveillance state’, *The Strategist*, 26 August 2019, [online](#); Ben Packham, ‘Professor, Chinese generals co-authored defence research’, *The Australian*, 31 July 2019, [online](#); Geoff Wade, *Twitter*, 25 February 2020, [online](#).
- 12 Xi Jinping [习近平], ‘习近平：在欧美同学会成立100周年庆祝大会上的讲话’ [Xi Jinping: Speech at the celebration of the 100th anniversary of the founding of the Western Returned Scholars Association].
- 13 Hannas et al., *Chinese industrial espionage: technology acquisition and military modernization*.
- 14 ‘中央引进国外智力领导小组始末’ [The beginning and end of the Central Leading Small Group for Introducing Foreign Expertise], *Baicheng County Party Building Online*, 30 September 2019, [online](#).
- 15 ‘中国人才工作的新进展’ [New progress in China’s talent work], *China Online*, 28 June 2005, [online](#).
- 16 ‘中共中央办公厅转发《中央人才工作协调小组关于实施海外高层次人才引进计划的意见》的通知’ [Notice on the CCP General Office circulating ‘Recommendations of the Central Talent Work Coordination Small Group on implementing the overseas high-level talent recruitment plan’], *China Talent Online*, 20 June 2012, [online](#).
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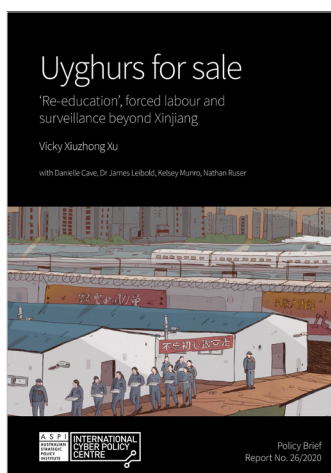
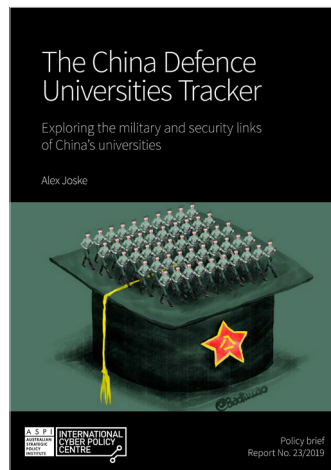
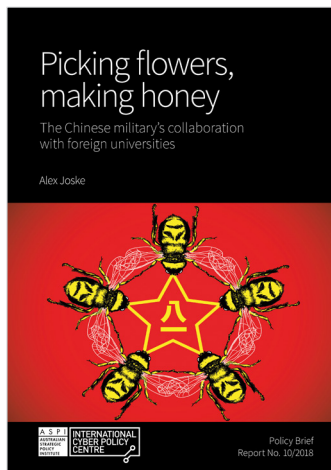
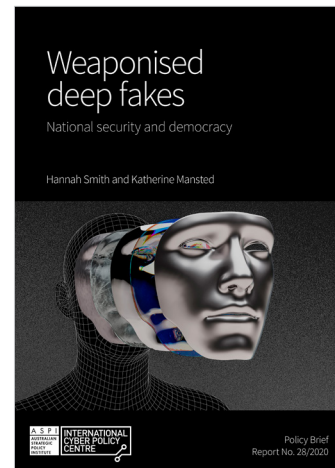
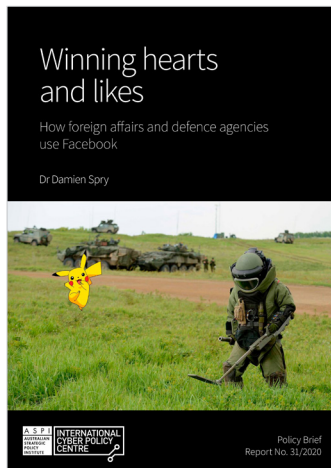
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## Acronyms and abbreviations

ACSE	Association of Chinese-American Scientists and Engineers
AI	artificial intelligence
BJUT	Beijing University of Technology
CAEP	Chinese Academy of Engineering Physics
CAIEP	China Association for International Exchange of Personnel
CAS	Chinese Academy of Sciences
CBMF	Taizhou CBM – Future New Material Science and Technology Co. Ltd
CCP	Chinese Communist Party
CETC	China Electronics Technology Group Corporation
CFB	Cell-Free Bioinnovations
CPPCC	Chinese People’s Political Consultative Conference
CSSA	Chinese students and scholars association
FBAR	thin-film bulk acoustic resonator
FBI	Federal Bureau of Investigation
ICPC	International Cyber Policy Centre
NASA	National Aeronautics and Space Administration
NIH	National Institutes of Health
NOAA	National Oceanic and Atmospheric Administration
NSW-CSSA	New South Wales Chinese Students and Scholars Association
NUDT	National University of Defense Technology
NWPU	Northwestern Polytechnical University
OCAO	Overseas Chinese Affairs Office
PRC	People’s Republic of China
SAI	Shenyang Automation Institute
STEM	science, technology, engineering and mathematics
TIIB	Tianjin Institute of Industrial Biotechnology
UCSD	University of California San Diego
UFWD	United Front Work Department
UTRC	United Technologies Research Center
UTK	University of Tennessee, Knoxville
WRSA	Western Returned Scholars Association
WUT	Wuhan University of Technology

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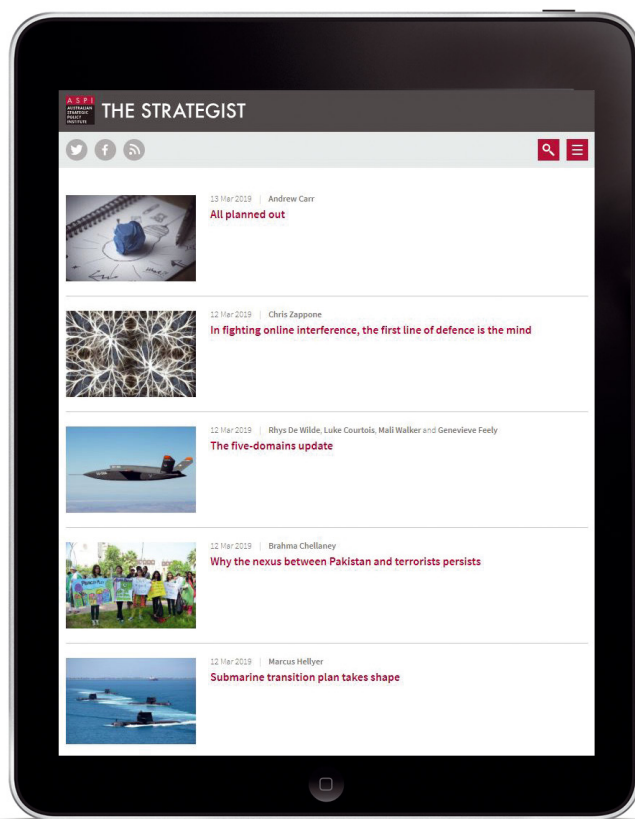


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