# Submission to the Parliamentary Joint Committee on Intelligence and Security

Inquiry into national security risks affecting the Australian higher education and research sector

The Chinese Communist Party's Talent Recruitment Efforts in Australia

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# **Table of Contents**

1. Summary	4
2. Introduction	5
3. Talent recruitment activity in Australia	8
4. Case studies	11
4.1 Grant funding	11
4.2 Defence-related technology	15
4.3 Government employees	18
5. Recommendations	20

# 1. Summary

Participants in the Chinese Communist Party's (CCP) talent-recruitment programs sometimes fail to accurately disclose conflicts of interest and external employment to funding agencies and employers. They have been linked to dozens of instances of alleged misconduct, fraud or espionage in the United States. Recruits are encouraged to transfer technology to China and commercialise it, including technologies with military and security applications. Cases such as that of a Thousand Talents Plan scholar and former University of Queensland professor providing Al-enabled surveillance technology to authorities in Xinjiang highlight the human rights implications of such technology transfer.<sup>2</sup> However, Australian research institutions, funding bodies and government agencies are still catching up to the problem.

Research for this submission has identified 325 participants in CCP talent-recruitment programs from Australian research institutions, including government institutions. Many appear to have had conflicting commitments, such as maintaining jobs in China through talent-recruitment programs while also employed full time in Australia. Identified recruitment activity peaked in 2017, but has since become harder to track and is likely still occurring at high levels. Approximately 40% of recruits are no longer employed in Australia, having since moved abroad.

CCP talent recruitment activity in Australia may be associated with as much as AU\$280 million in grant fraud over the past two decades.<sup>3</sup> Australian research grants come with clear requirements to disclose conflicts of interest. In some cases, they prohibit recipients from taking up external employment or other fellowships and require them to predominantly reside in Australia. Yet, at least 59 individuals who received highly competitive fellowships from the Australian Research Council (ARC) appear to have concurrently worked in China, some managing companies or laboratories working on related technologies.

The Australian Government, research institutions and funding agencies should seek to understand the extent of foreign talent-recruitment activity affecting them. They should carry out or commission independent audits into participants in talent-recruitment programs. They should seek to build

https://www.aspistrategist.org.au/the-company-with-aussie-roots-thats-helping-build-chinas-surveillance-state/

<sup>&</sup>lt;sup>3</sup> This figure is a total of ARC grants received by identified talent-recruitment program participants that may have overlapped with participation and included requirements that could be violated by talent program participation. The lack of transparency around talent-recruitment program appointments means that it is often difficult to determine when involvement started and ended.

analytical capacity to investigate and monitor foreign talent recruitment activity. New legislation and guidelines for grants should be explored when appropriate.

Universities are legally responsible for administering grants their employees receive. They have an obligation to improve their responses to CCP talent-recruitment activity. Existing policies and grants agreements must be enforced. New and existing supervisory mechanisms, such as centralised staff travel databases, should be used to identify signs of talent recruitment activity and manage participants in recruitment programs. Universities should ensure staff are fully briefed on foreign talent recruitment programs and understand intellectual property policies, commercialization policies and their disclosure obligations.

# 2. Introduction

Australia and China have a long history of research collaboration, and China is now one of Australia's main research partners. Large numbers of Chinese graduate students study in Australia, many of whom go on to settle here and contribute to the country's research and education sectors.

However, research collaboration between Australia and China has come under increased scrutiny amid the strengthening of the Australian government's efforts to counter foreign interference. In 2019, the Education Minister convened the University Foreign Interference Taskforce, which produced non-prescriptive guidelines for the university sector. My 2018 report *Picking flowers, making honey: The Chinese military's collaboration with foreign universities* revealed that roughly 3,000 scientists have been sent to work and study abroad by the Chinese military since 2007. Approximately 300 of those scientists were sent to Australia, where they worked on military-use technologies such as radar systems, supercomputers, cryptography and drone swarms.

As the CCP seeks to strengthen its capacity for 'indigenous innovation' and reduce its reliance on foreign technology, it has invested significant resources in its efforts to recruit scientists and other 'talents' from abroad. According to the Chinese Government, its talent-recruitment programs recruited over 60,000 individuals between 2008 and 2016.<sup>6</sup> These programs are a conduit

<sup>4</sup> https://www.education.gov.au/ufit

<sup>&</sup>lt;sup>5</sup> https://www.aspi.org.au/report/picking-flowers-making-honey

<sup>&</sup>lt;sup>6</sup> Alex Joske, *Hunting the phoenix: the Chinese Communist Party's global search for technology and talent*, ASPI ICPC, August 2020, pg. 4.

for technology transfer and have been used to incentivise misconduct and theft.

CCP talent-recruitment programs target scientists and entrepreneurs of all backgrounds and from a range of fields.<sup>7</sup> They offer funding, allowances and other benefits to individuals with valuable expertise or technology in exchange for them working for Chinese institutions. These programs, of which there are over 200, are often flexible, allowing recruits to maintain their original positions abroad, while occasionally supervising research in China as well as visiting Chinese students at their original institution. Participants are encouraged and sometimes subsidised to run commercialise technology they bring from abroad.

My August 2020 report *Hunting the phoenix: The Chinese Communist Party's global search for technological talent* documented the global infrastructure behind CCP talent-recruitment work.<sup>8</sup> In particular, it highlighted more than 500 'recruitment workstations' set up around the world to spot and recruit talent, and the links between talent-recruitment activity, united front work and espionage or misconduct. At least 57 workstations have been established in Australia.

The CCP's talent-recruitment efforts have attracted little attention outside of the United States, where law enforcement agencies, funding bodies and research institutions are now well aware of the issue. In Australian universities and many relevant parts of the Australian Government, there was still very little attention placed on CCP talent-recruitment programs until the publication of articles about the Thousand Talents Plan in *The Australian* in August last year.

Prior to August 2020, Only a handful of incidents involving Australian participants in talent-recruitment programs had attracted attention.

- Clive Hamilton's Silent Invasion, published in 2018, mentioned a former DST scientist at the University of Adelaide and Victoria University who also worked at a military-linked laboratory in China as a Thousand Talents Plan professor.<sup>9</sup>
- A University of New South Wales professor who supervised at least nine visiting students from the People's Liberation Army's (PLA)

<sup>&</sup>lt;sup>7</sup> https://cset.georgetown.edu/research/the-youth-thousand-talents-plan-and-chinas-military/

https://s3-ap-southeast-2.amazonaws.com/ad-aspi/2020-10/Hunting%20the%20phoenix\_v2.pdf?TX\_kD\_pNKIBF.xuSdZO1UMuTKmiNEeAK

<sup>&</sup>lt;sup>9</sup> Clive Hamilton, Silent Invasion, Hardie Grant Books, 2018, pg. 214-215.

- supercomputer program has also been a Thousand Talents Plan professor at the PLA's National University of Defense Technology. 10
- A former University of Queensland professor joined the Thousand Talents Plan while still employed by the university and receiving ARC funding. In China, he set up an artificial intelligence company called Koala AI that supplies surveillance technology to authorities in Xinjiang and cooperates with public security bureaus.<sup>11</sup> As of September 2019, the company had received over RMB30 million (AU\$6 million) in investment.<sup>12</sup>
- According to a February 2020 article in *The Australian*, a
  Commonwealth Scientific and Industrial Research Organisation
  (CSIRO) chief research scientist, had been named in numerous
  Chinese-language reports as a member of the Thousand Talents Plan
  and another talent-recruitment program. However, CSIRO has denied
  this and claimed that the Chinese reports were inaccurate.<sup>13</sup>

Recent actions by several universities and the ARC attest to their strengthened efforts to manage CCP talent-recruitment programs. However, in my opinion, responses from those entities as well as parts of the government still have many years of development ahead of them. Research institutions' responses to talent recruitment sit on a broad spectrum, and many of those worst affected do not appear to have confronted the problem yet.

In particular, the scale and cost of misconduct associated with CCP recruitment efforts is not widely appreciated. This means that responses have often moved slowly, and risk being hampered by a lack of resourcing, willpower and investigative capabilities in research institutions, universities and government agencies. The ability of law enforcement agencies to tackle crimes associated with talent recruitment has not yet been demonstrated.

The apparent widespread failure of CCP talent-program participants to fully declare their involvement, and any related commercial activity or intellectual property created, warrants more action than has been observed. Importantly,

 $\frac{https://www.theaustralian.com.au/nation/politics/professor-chinese-generals-coauthored-defence-research/news-story/8c7e063b06c0198b7b4ba9e357a8bffd$ 

https://www.aspistrategist.org.au/the-company-with-aussie-roots-thats-helping-build-chinas-surveillance-state/;

https://www.theaustralian.com.au/nation/politics/uq-researcher-probed-over-ai-uighur-surveil/news-story/33a6ae6b304c6363d2a4be6a22bc4887

https://www.theaustralian.com.au/nation/security-experts-warn-of-military-threat-from-chinese-marine-project/news-story/899f23a52bc719978de4d6f90a37793b

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<sup>&</sup>lt;sup>12</sup> https://36kr.com/p/1724433022977

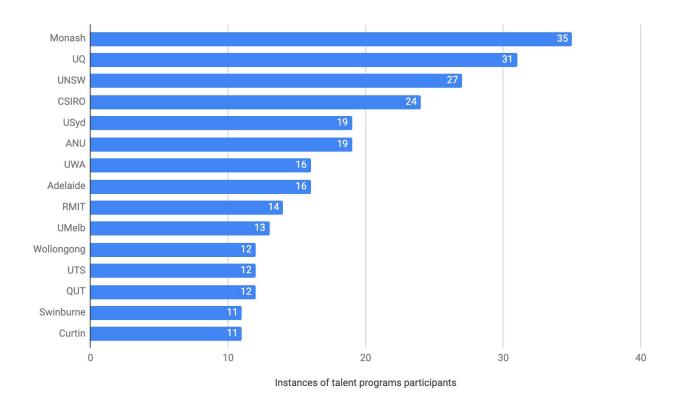
<sup>13</sup> 

an appropriate response to the challenge—one that protects research integrity, relies on thorough investigations, addresses the incentives offered by recruitment programs, and promotes greater awareness—is in the interest of all affected institutions. The preventable loss of intellectual property through undeclared commercialisation and patents places a financial incentive on managing the problem. Effectively addressing CCP talent recruitment would help restore confidence in the research sector's ability to meet standards of integrity, ethics and security when engaging with China.

# 3. Talent recruitment activity in Australia

CCP talent-recruitment programs are highly active in Australia, and numerous examples of recruitment were identified at all leading Australian universities as well as CSIRO (Figure 1). This report is based on research into 325 Australian cases of scientists and scholars believed to have joined CCP talent-recruitment schemes, mostly in the past decade. These individuals were either recruited while employed at Australian institutions or appeared to maintain an affiliation with a recruitment program after moving to Australia.

Figure 1. The top 15 Australian universities by talent recruitment program participants (past instances included)<sup>14</sup>



The 325 recruits are probably only a minority of Australian cases. As described below, the frequency of different talent-recruitment schemes identified in the data indicates that there may be well over 600 instances of recruitment in total.

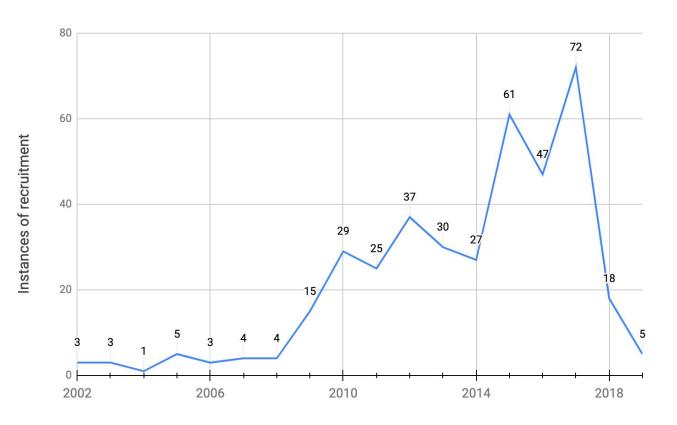
This analysis used openly available resources, primarily Chinese-language websites, which have been archived and processed. It included data on when they were recruited, which programs they joined, which institutions recruited

<sup>&</sup>lt;sup>14</sup> Some talent program participants have been affiliated with multiple Australian institutions.

them, any business activity in China, patents listing them as an inventor or assignee, and how long their talent program affiliations lasted.

Since the Thousand Talents Plan became increasingly covert in 2018, it has become more difficult to study these activities (Figure 2). However, there is still ample evidence online to identify large numbers of participants. For example, recruitment schemes run by provincial or municipal governments in China have not always been as discreet as the Thousand Talents Plan. Aside from the Thousand Talents Plan, over 200 talent-recruitment programs have been set up by Chinese government organs.<sup>15</sup>

Figure 2. Known Australian instances of recruitment to CCP talent programs.<sup>16</sup>



Furthermore, several scientists who joined the Thousand Talents Plan after it became more covert were identified. For example, University of Technology Sydney Professor Mao Guoqiang reportedly became a professor at the Xidian University in 2019. He is listed by Xidian's School of Telecommunications Engineering as a participant in the 'Recruitment Program of Global Experts',

<sup>&</sup>lt;sup>15</sup> Alex Joske, *Hunting the phoenix: the Chinese Communist Party's global search for technology and talent*, ASPI ICPC, August 2020, pg. 4.

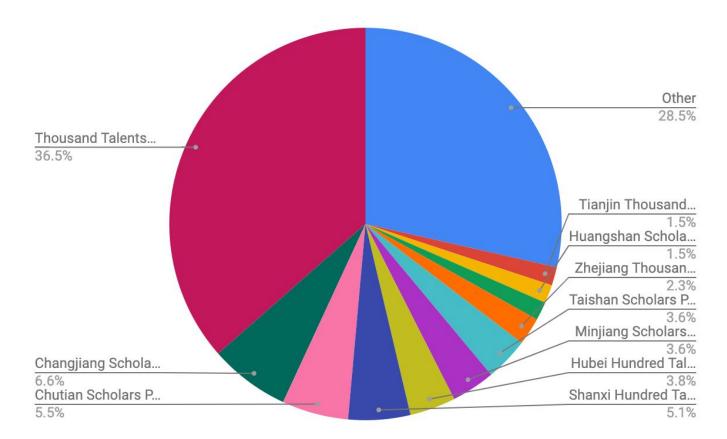
<sup>&</sup>lt;sup>16</sup> Note that some individuals join several talent-recruitment programs. Cases where date of recruitment is unknown were not included.

which is another name for the Thousand Talents Plan. <sup>17</sup> Prior to joining the Thousand Talents Plan, Mao worked on several Australian Government defence projects and US Air Force projects. <sup>18</sup> Xidian University is close to the Chinese military and hosts at least five defence laboratories. <sup>19</sup>

The Thousand Talents Plan accounted for 36.5% of recruitment activity identified in this research (Figure 3). However, figures released by the China's Ministry of Human Resources and Social Security suggest that subnational recruitment programs (e.g. those run by Chinese provincial governments) have recruited roughly seven times as many people than national ones.<sup>20</sup>

This underrepresentation of participants in subnational programs suggests there may be hundreds more Australian participants in talent-recruitment programs who have not yet been identified. Subnational programs are often less prestigious than national ones, therefore participants may not be as well documented or publicised, particularly those from many years ago.

Figure 3. Talent-recruitment programs represented among Australian participants



<sup>&</sup>lt;sup>17</sup> '人才队伍' [Personnel], Xidian University School of Telecommunications Engineering, archived on February 18, 2020, online.

<sup>&</sup>lt;sup>18</sup> https://web.archive.org/web/20190716204714/http://www.guogiangmao.com/research.html

<sup>19</sup> https://unitracker.aspi.org.au/universities/xidian-university/

<sup>&</sup>lt;sup>20</sup> Joske, *Hunting the phoenix*, pg 17.

# 4. Case studies

Joining a CCP talent-recruitment program is not in itself illegal, and does not necessarily involve misconduct. However, several case studies from Australian research institutions are given below to illustrate concerning features of CCP recruitment programs, including evidence of:

- Widespread grant fraud or violation of grant funding agreements
- Violation of university policies on intellectual property, external employment and conflicts of interest
- Recruitment of Australian Government employees
- Undisclosed commercialisation of research, potentially involving intellectual property theft
- Recruitment of individuals with implications for defence and security technology
- Promotion of talent-recruitment programs by CCP-linked community organisations for scientists and scholars

The data gathered for this submission—particularly on grant funding—support earlier suggestions that misconduct and non-disclosure is common among participants in CCP talent-recruitment programs. For example, the Texas A&M University system found that only five out of 100 staff linked to CCP talent programs had properly disclosed it.<sup>21</sup> The Chinese Government agencies overseeing recruitment programs have themselves been implicated in economic espionage. In some cases, individuals promised to hand over confidential information if they were accepted into recruitment programs, or were rewarded through recruitment schemes after committing crimes.<sup>22</sup>

#### 4.1 Grant funding

Without full disclosure and approval, holding an appointment under a Chinese Government talent-recruitment program, not to mention running a related company, could breach grant funding agreements. Such behaviour would also breach university policies on conflicts of interest, external employment, intellectual property and research commercialisation.

For example, the most sought after fellowships awarded by the Australian Research Council generally require recipients to work full time on their fellowship projects. Recipients are discouraged from taking up other fellowships for the duration of the ARC fellowship. All funding agreements require grant recipients to disclose conflicts of interest—such as having a

<sup>2.</sup> 

stake in a company that works in a related area or working on similar projects for another institution.

Recipients of the ARC's most prestigious and competitive grants are among those who have concurrently been in CCP talent-recruitment programs.

Every year, the Australian Research Council awards up to 17 highly competitive Australian Laureate Fellowships to leading scientists.

The fellowships, each worth around \$3 million come, with strict terms to ensure their proper use. For example, the funding agreement for fellowships awarded in 2018 states:

'Unless otherwise approved by the ARC, Fellows cannot hold another appointment/position (continuing or non-continuing) either at the Administering Organisation or at another organisation.'

Any additional appointments, subject to ARC approval, are subject to the following restriction:

'A Fellow may undertake research supervision or academic duties in addition to performing the Fellowship but only where it enhances, rather than detracts from, the Project.'

Fellowship funding is also subject to the condition that

'each participant or organisation named in a Proposal must declare to the Administering Organisation [i.e. the research institution administering the grant] all Conflicts of Interest that exist or are likely to arise in relation to any aspect of the Project'.

Since 2009, at least 12 recipients of Australian Laureate Fellowships show evidence that their involvement in talent-recruitment programs overlapped with those fellowships. The combined value of these fellowships is roughly AU\$33 million. In some cases, the fellows were also running companies and filing patents in China.

Similarly, the ARC's Future Fellowships, which are generally worth around AU\$1 million, also come with full-time commitments and restrictions on additional appointments. At least 23 recipients of Future Fellowships worth a total of AU\$19 million appeared to concurrently hold appointments in China through talent-recruitment programs.

Finally, similar conditions apply to the ARC's Discovery Early Career Researcher Award (DECRA), which supports young researchers to work on a full-time or part-time basis. At least 24 DECRA grants worth AU\$8.6 million

appear to have been awarded to scholars also affiliated with Chinese institutions through talent-recruitment programs.

Aside from the three fellowships described above, grants generally include requirements to disclose conflicts of interest, and some require recipients to primarily reside in Australia.

#### George Zhao

The University of Queensland's Professor George Zhao (赵修松) is a participant in two Chinese Government talent-recruitment programs, leading a research institute and company in China.

Zhao is also one of the few scientists privileged enough to win the ARC's two most competitive and generous full-time fellowships: the Future Fellowship (2011–2017) and the Australian Laureate Fellowship (2017–2022). 23 In total. the fellowships are expected to provide roughly AU\$3.9 million in funding for Zhao's research on energy storage technology.

While working as an ARC fellow, Zhao has taken up several positions in China. In 2013, he reportedly joined Peking University as a Thousand Talents Plan professor.<sup>24</sup> However, there is little information available on the reported affiliation with Peking University.

In November 2014, Zhao established Qingdao Gelubo Energy Science and Technology Co Ltd (青岛格鲁博能源科技有限公司).25 The company is wholly owned by him and sells batteries—the focus of his ARC-funded research projects. It has US\$10 million (AU\$13 million) in registered capital.

In December 2014, Zhao also became a professor at Qingdao University through Shandong Province's 'Taishan Scholars Plan'. The announcement from the office of Shandong Province's Talent Work Leading Group (an interagency Party organ) states it awarded Taishan Scholars Plan funding to the 'George Zhao Qingdao University energy-storage materials research team'. 26 Regulations introduced in 2013 indicate that awardees are appointed for five years and receive an annual salary of up to RMB1 million

<sup>&</sup>lt;sup>23</sup> https://dataportal.arc.gov.au/NCGP/Web/Grant/Grant/FT100100879; https://dataportal.arc.gov.au/NCGP/Web/Grant/Grant/FL170100101

<sup>&</sup>lt;sup>24</sup> http://archive.vn/gvsEE; 'Clean Energy and Water Research: Contact', University of Queensland School of Chemical Engineering, no date, online.

<sup>25</sup> https://archive.vn/vQkWT

<sup>&</sup>lt;sup>26</sup> '泰山学者优势特色学科计划公示公告' [Public announcement on the Taishan Scholars Plan for disciplines with outstanding qualities], Qilü Online, 12 February 2015, online.

(AU\$200,000) as well RMB30 million (AU\$6 million) in funding for the research program they run at their Chinese host university.<sup>27</sup>

The next year, Qingdao University established its Institute of Materials for Energy and Environment with Zhao as its director (Figure 4). According to the institute's website, it carries out research on batteries, water purification technology and other aspects of materials science. It claims to have received roughly RMB170 million (AU\$34 million) in funding, undertaken national-level projects and commercialised two of its projects. <sup>29</sup>

Figure 4. Zhao speaking at a Qingdao University event in 2016. The text describes him as a Thousand Talents Plan scholar and director of the Qingdao University Institute of Materials for Energy and Environment. Source: Qingdao University



Zhao's work has both commercial and military value. A 2016 Shandong Provincial Government document details a research program on materials science that Zhao was establishing at Qingdao University. It states that Zhao's team was carrying out research on 'the applications of graphene for

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https://web.archive.org/web/20200515072835/http://rsc.ouc.edu.cn/\_upload/article/97/90/57c63f6d41878707dc2cd41f3698/b3064571-de1a-4011-b86d-c40031c8279a.pdf

<sup>&</sup>lt;sup>28</sup> '赵修松' [George Zhao], Institute of Materials for Energy and Environment, 13 September 2017, online.

<sup>&</sup>lt;sup>29</sup> '本院概况' [About the institute], Institute of Materials for Energy and Environment, no date, online.

bulletproof clothing, bulletproof armour and other military-use protective materials.<sup>30</sup>

Zhao's work in China has also developed new intellectual property for Chinese institutions. Since 2015, 39 Chinese patents that list Zhao as their inventor have been assigned to either Qingdao University or a Shandong-based company. Most recently, one patent listing Zhao as an inventor was filed in November 2019 by Qingdao University. No examples of Zhao's inventions being patented by the University of Queensland were found.

Even without Chinese-language resources, there is substantial evidence of these activities. A biography of him released by the ARC as part of its 2017 funding announcements mentioned that he had been awarded a 'Thousand Talent Professorship of the Chinese Government'; however, it appears the implications of this weren't appreciated at the time. <sup>32</sup> An English-language profile of Zhao on Qingdao University's website describes him as a professor at the university, a Thousand Talents scholar, and a Taishan Scholars professor. <sup>33</sup>

Despite evidence of his substantial involvement in Qingdao University, Zhao's LinkedIn page states that he is only an 'honorary professor at Qingdao University'. <sup>34</sup> A University of Queensland webpage about the research group Zhao runs describes his Qingdao University professorship as a joint or adjunct position. <sup>35</sup>

# 4.2 Defence-related technology

Talent-recruitment work broadly seeks to bring valuable expertise, resources and technology to China. This includes technology with both commercial, civilian and military value. ASPI ICPC's China Defence Universities Tracker project detailed how the policy of military-civil fusion is deepening the involvement of Chinese universities in defence research.<sup>36</sup> It characterised 43

https://web.archive.org/web/20200205010702/http://edu.shandong.gov.cn/attach/0/0831ea61d2cf488394d231ba16241b76.pdf

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https://patents.google.com/?inventor=%E8%B5%B5%E4%BF%AE%E6%9D%BE&after=priority:20120101

<sup>30 &#</sup>x27;山东省一流学科建设目标任务书'

<sup>32</sup> https://archive.vn/dloIF

<sup>33</sup> https://archive.vn/hdjj5

https://archive.vn/OIN6O

<sup>&</sup>lt;sup>35</sup> 'Clean Energy and Water Research: Contact', University of Queensland School of Chemical Engineering

<sup>36</sup> http://unitracker.aspi.org.au/

civilian universities as associated with a very high or high risk of relationships with them being leveraged for military or security purposes.

The People's Liberation Army (PLA) runs its own universities and research institutes which have engaged in overseas talent-recruitment work. For example, the PLA National University of Defence Technology has described UNSW Professor Xue Jingling as one of its Thousand Talents Plan professors.<sup>37</sup> Xue received \$1.794 million in ARC grants while also affiliated with the PLA university. He is an expert in supercomputers and has supervised nine visiting Chinese military scientists at UNSW. His research partners in China include two PLA generals in charge of the military's supercomputer program, which is used for research on nuclear warheads and aircraft.

#### Brad Yu Changbin

Brad Yu Changbin (于长斌) was a professor at ANU's College of Engineering and Computer Science and Curtin University specialising in autonomous multi-agent systems and formations. While working on defence-funded drone swarm projects in Australia, he joined multiple talent-recruitment programs and trained a PLA scientist who is now chief technician of the Chinese military's fixed-wing drone swarm program.

Yu received his PhD from ANU in 2007 under the supervision of Brian Anderson, a leading Australian scientist who was inaugural CEO of National ICT Australia (NICTA, since merged with CSIRO as Data61) from 2003 to 2006. Yu was also affiliated with NICTA from 2005 to 2008.<sup>38</sup>

From 2005 to 2007, shortly after arriving in Australia, he was president of the Canberra Chinese Scholars and Students Association, a Chinese Government-affiliated group that works to influence and organise overseas Chinese students.<sup>39</sup>

In 2006 He was selected as one of 80 'Olympic helmsmen' as part of a Chinese state media program to select cockswains for China's Olympic team. <sup>40</sup>In April 2008 he was chosen as a torch bearer for the Canberra leg of the Beijing Olympics torch relay, the only international student to receive the

<sup>&</sup>lt;sup>37</sup> http://archive.fo/z6W4R. The page has since been taken down.

http://users.cecs.anu.edu.au/~bradyu/Site/Brad\_Website/ABOUT\_ME\_files/CV\_Yu\_July2010.pdf

http://web.archive.org/web/20141006115750/http:/1000plan.org/qrjh/article/6559; see also https://www.aspi.org.au/report/party-speaks-you.

<sup>40</sup> http://2008.sohu.com/20061208/n246885194.shtml

honour. His 'constant support and active participation in Olympic promotion events' reportedly led to his selection as a torch bearer. <sup>41</sup> Yu oversaw the Canberra CSSA's recruitment of students for the torch relay rally. <sup>42</sup>

After completing his PhD in 2007, Yu stayed at ANU, receiving an ARC Postdoctoral Fellowship. From 2011-2015 he was supported by a Queen Elizabeth II fellowship, requiring him to work at ANU full-time.

Starting in 2009, Yu supervised a visiting PhD student from the PLA's National University of Defence Technology, Wang Xiangke. Like Yu, Wang specialises in drone swarms and has published over a dozen papers with Yu on the topic. Wang, who is now chief technician of NUDT's fixed-wing drone swarm program, told Chinese reports in 2017 that 'Unmanned combat is the commanding height of applied artificial intelligence; we must rush to occupy it!'43

At the same time as Yu was training a PLA scientist, he was working on Australian Defence Science and Technology Organisation and US Air Force projects led by Brian Anderson, all of which appear to have related to drones. (USAF Grant AOARD-09-4136 (USD35k), USAF Grant AOARD-10-4102 (USD184k), NICTA-DSTO Project SWARMS (AUD860k), NICTA-DSTO Project SWARMS-2 (AUD749k)).

Yu's involvement in talent-recruitment programs goes back to at least 2010, when became a 'Sichuan Attracting Overseas High-Level Talent Work Advisor'. At the same Sichuan event, Yu signed an agreement with the PLA-linked University of Electronic Science and Technology of China, taking up a position as a 'specially appointed professor' with the promise of RMB500,000 (AU\$100,000) in funding. The university is one of China's leading universities for defence electronics and has been sanctioned by the US Government for allegedly acting as a proxy for China's nuclear weapons program.

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https://www.smh.com.au/politics/federal/from-student-to-drone-swarms-how-the-chinese-communist-party-trains-its-cadres-in-australia-20181108-p50evg.html; http://www.81.cn/jfjbmap/content/2017-12/05/content\_193525.htm

https://web.archive.org/web/20100714070704/http:/edu.people.com.cn:80/GB/12084714.html https://web.archive.org/web/20181120021206/http://edu.people.com.cn/GB/12084677.html

https://unitracker.aspi.org.au/universities/university-of-electronic-science-and-technology-of-china/

<sup>41</sup> http://web.archive.org/web/20141006115750/http://1000plan.org/grjh/article/6559

<sup>42</sup> http://users.cecs.anu.edu.au/~bradyu/cssa/CSSA 190307.pdf

In 2011 Yu became a Shandong province 'Mount Tai Scholar' (a talent recruitment program) and joined the Shandong Academy of Sciences' Intelligent Sensing and Control Innovation Team.<sup>47</sup>

In 2012, Yu became a Zhejiang Province Thousand Talents Plan Scholar at Hangzhou Dianzi University's School of Automation. In 2013 he joined the Zhejiang Province Qianjiang Scholar, another talent recruitment program.<sup>48</sup>

Yu is also deputy director of a 'overseas expertise introduction centre for discipline innovation' in cyber-physical system sensing and control at Hangzhou Dianzi University.<sup>49</sup> The university is jointly administered by Zhejiang Province and defence industry agency SASTIND.<sup>50</sup>

The director of the Hangzhou centre, Xue Anke has close ties to the PLA and has been head of the university's national defence key laboratory, which is supervised by Chinese military. He has undertaken numerous PLA projects and received awards for national defence research. He is also an expert technical advisor to the PLA.<sup>51</sup>

In 2017, Yu took up a professorship and lab directorship at Westlake University in China.<sup>52</sup>

In May 2019, Yu was appointed Curtin University's Optus Chari in Artificial Intelligence. According to *The Australian*, Curtin University said in 2020 that 'Professor Yu has spent some time in Western Australia this year, but is currently in China'. His profile on Curtin University's website is now inaccessible, and he may no longer work there.

#### 4.3 Government employees

https://news.curtin.edu.au/media-releases/curtin-and-optus-business-appoint-chair-to-advance-ai-in-5g-era/

https://www.theaustralian.com.au/nation/china-exploits-australias-lax-laws-to-sign-up-researchers-for-secret-program/news-story/35a48fe48919f0cc2cd269a3bc2fd91d

<sup>&</sup>lt;sup>47</sup> https://web.archive.org/web/20191126014452if\_/http://msite.eol.cn/1174/121821.shtml

<sup>48</sup> https://web.archive.org/web/20191126014452if\_/http://msite.eol.cn/1174/121821.shtml

http://web.archive.org/web/20181120045539/http:/rsc.qau.edu.cn/infoDetail.jsp?infoID=42758 https://unitracker.aspi.org.au/universities/hangzhou-dianzi-university/

<sup>&</sup>lt;sup>51</sup> https://archive.vn/56GWo

<sup>&</sup>lt;sup>52</sup> http://archive.vn/2020.02.18-020602/http://www.liuxuehr.com/m/view.php?aid=31144; http://archive.vn/OELTH

At least 24 past and present employees of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) are believed to have joined Chinese Government talent-recruitment programs. Most appear to have left the CSIRO to join talent-recruitment programs, indicating they did not hold external employment while at CSIRO. However, in six cases, including that of Professor Cai Wenju, there is evidence that they maintained their jobs at CSIRO while joining talent-recruitment programs.

# Lu Liming

CSIRO Senior Principal Scientist Lu Liming (陆利明) is a metallurgist specialising in iron ore.<sup>55</sup> In December 2014, he was recruited to the University of Science and Technology Liaoning (USTL) through the 'Pandeng Scholars' program, a recruitment scheme that is 'Liaoning province's highest honour for high-level overseas talent development'.<sup>56</sup>

According to the provincial government's regulations on the program, selectees must 'guarantee that during their appointment period they will work for their host university for at least nine months.' Recruits are reportedly hired for at least three years and receive RMB1.5 million (AU\$300,000) from the government. However, Lu's CSIRO profile describes him as an adjunct professor at USTL.

Lu may still work for USTL even though his Pandeng Scholars professorship has probably lapsed. A 2019 page on USTL's website mentions a 'Lu Liming work room'. <sup>59</sup>

https://web.archive.org/web/20200519013137/http://www.eol.cn/liaoning/liaoningnews/201409/t20140917\_1176489.shtml

<sup>55</sup> https://web.archive.org/web/20200220011246/https://people.csiro.au/L/L/Liming-Lu

 $<sup>\</sup>frac{https://web.archive.org/web/20200220011651/http://news.univs.cn/2014/1203/1072188.shtml;}{https://archive.vn/cBKRo}$ 

<sup>57</sup> https://archive.vn/mOALp

<sup>&</sup>lt;sup>59</sup> '比表面积分析仪' [Surface area analyser], USTL large equipment sharing platform, 31 October 2019, online.

# 5. Recommendations<sup>60</sup>

#### **Australian Government:**

- Task appropriate agencies to study the extent and mechanisms of CCP talent-recruitment work, including any related misconduct
- 2. Determine whether existing legislation and other measures (such as grant funding agreements) effectively mitigate risks or if new criminal penalties should be introduced
- 3. Specifically prohibit participation in foreign talent-recruitment programs by government employees
  - Ensure participation in CCP talent-recruitment programs and similar conflicts of interest are being adequately handled and investigated by CSIRO
- 4. Develop a national talent strategy that outlines how Australia will develop and retain world-leading talent and support research commercialisation
- Create an annual meeting of education, science and industry ministers from like-minded countries to deepen research collaboration within alliances, and coordinate on issues such as technology and research security
- 6. Increase research funding for priority areas such as artificial intelligence, quantum science, materials science and energy storage
- 7. Ensure the Australian Federal Police has sufficient knowledge and resourcing to investigate and prosecute crimes related to foreign talent-recruitment programs
- 8. Ensure funding agencies have effective mechanisms and resources to investigate compliance with funding agreements
- 9. Establish a public online database of all external funding received by public universities, requiring universities to submit and update data
- 10. Establish a national research integrity office that oversees publicly funded research institutions, produces public reports and standards on research integrity issues, manages the database described above, and carries out investigations into research integrity.
- 11. Issue a policy statement and guidance on foreign talent-recruitment programs, possibly through the University Foreign Interference Taskforce
- 12. Task the Australian Taxation Office to examine possible tax evasion by participants in foreign talent-recruitment programs

21

<sup>&</sup>lt;sup>60</sup> See also the recommendations in Joske, *Hunting the phoenix*.

13. Hold briefings for university management and researchers on CCP talent-recruitment programs and relevant Australian Government policies

# Funding agencies:

- 1. Investigate grants recipients who may have violated funding agreements through participation in foreign talent-recruitment programs
- 2. Expand resourcing for ensuring compliance with grant agreements and research integrity policies
- 3. Specifically require grant applicants and participants to fully disclose participation in foreign talent-recruitment programs, including the sharing of original contracts
- 4. Require grant evaluators to fully disclose participation in foreign talent-recruitment programs

#### Universities and research institutions:

- 1. Organise staff briefings, whether delivered by experts from government or academia, on foreign talent-recruitment programs, relevant university policies and disclosure requirements
- 2. Commission an independent review of participation in talent-recruitment programs among staff and any potential misconduct
  - Reviews should seek to determine why existing measures failed to prevent misconduct
- 3. Ensure there's sufficient capacity to effectively investigate potential misconduct
- 4. Strengthen and fully utilise information on staff travel, which employers already collect
  - Unified staff travel databases can be integrated with information on staff and research contracts to automatically flag potential clashes
- 5. Specifically require full disclosure by staff of participation in foreign talent-recruitment programs, including the sharing of original contracts