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## Review and Analysis on History of Establishing and Operating Universities by Chinese Academy of Sciences

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## Abstract

Since set up in 1949, Chinese Academy of Sciences (CAS) has established and operated several universities to meet the need of the state and the academy. It is a history with pains and gains. Today, a large number of professional talents have been trained and graduated from CAS. CAS takes a pioneer role in exploring the new way for the development of Chinese higher education in integrating scientific research and training, and promoting Chinese universities' academic levels.

## Keywords

Chinese Academy of Sciences, higher education, establishing and operating universities, integration of scientific research and education

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## Review and Analysis on History of Establishing and Operating Universities by Chinese Academy of Sciences

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**Abstract:** Since its establishment in 1949, Chinese Academy of Sciences (CAS) has established and operated several universities to meet the need of the state and the academy. It is a history with pains and gains. Today, a large number of professional talents have been trained and graduated from CAS. CAS takes a pioneer role in exploring the new way for the development of Chinese higher education in integrating scientific research and training, and promoting Chinese universities' academic levels. DOI: 10.16418/j.issn.1000-3045.20201211001-en

**Keywords:** Chinese Academy of Sciences; higher education; establishing and operating universities; integration of scientific research with education

Chinese Academy of Sciences (CAS), as the highest academic institution in the field of science and technology in China, has been attaching great importance to talent cultivation and education since its establishment in 1949. Through pioneering work of higher education, it has cultivated a large number of talents for this system, as well as qualified professionals for the society, who have contributed to national development and social progress. In the new era, the high-quality development driven by technological innovation and the construction of “world-class universities and disciplines” have put forward higher requirements for higher education. Full summarizing of the practice in establishing and operating universities by CAS is of great significance to the integration of scientific research with education, collaborative education, construction of world-class universities with Chinese characteristics, and further sufficient reserve of talents for constructing an innovation-oriented country.

### 1 Formation of the graduate education system and establishment of University of Science and Technology of China (USTC)

After the founding of the People's Republic of China, there were many things waiting to be done. The limited universities, colleges, and students resulted in severe shortage of research talents, the primary resource for developing science. Guo Moruo, President of CAS at that time, repeatedly emphasized that the cultivation of scientific talents is the basis of

scientific development, and the scientific undertakings will be stagnant without newly emerging forces<sup>[1]</sup>.

Upon establishment, CAS took the training of research interns as an important way to cultivate talents. In June 1951, CAS and Ministry of Education jointly issued the Approach for Summer Recruitment of Research Interns and Postgraduates by Institutions Affiliated to CAS and Research Departments of Universities Affiliated to Ministry of Education, which marked the start of postgraduate education in China. The cultivation of research interns provided important reference for CAS to explore the establishment of postgraduate education system<sup>[2]</sup>. In August 1955, the State Council issued the Provisional Regulations on Cultivation of Postgraduates by Chinese Academy of Sciences, which marked the formal establishment of CAS's postgraduate education system. On September 6, 1955, *People's Daily* published an editorial “the formal postgraduate system was initiated by Chinese Academy of Sciences.” From 1955 to 1965, 81 institutes of CAS have cultivated 1 517 postgraduates, accounting for 1/3 of the total postgraduate cultivation units in China<sup>[3]</sup>. During that period, CAS's postgraduate education gradually realized normal development, presenting strong faculty, profound research foundation, and extensive discipline distribution. In 1964, under the active appeal of Zhao Jiuzhang, director of Institute of Geology and Geophysics, CAS, as well as other famous scientists, CAS initiated the Graduate School of Chinese Academy of Sciences in Zhongguancun, Beijing<sup>[4]</sup>. However, due to the limited scale, postgraduate education at that time cannot meet the urgent needs of CAS for talents.

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After visiting Soviet Academy of Sciences and Novosibirsk State University <sup>①</sup> in 1957, CAS proposed to establish a new-style university. On May 9, 1958, the Leading Party Group of CAS submitted an application to Vice Premier Nie Rongzhen for establishing USTC, and put forward the establishing purpose and discipline setup scheme. That is, they proposed to establish a new-style university in order to give full play to the potential of existing scientists of CAS, accelerate the cultivation of scientific talents in weak and blank technological disciplines, and promote their rapid development in China. This university aims at cultivating scientific talents in the cutting-edge disciplines (e.g., nuclear physics, radiochemistry, supersonic aerodynamics, ultra-high frequency technology, computing technology, geochemistry, high-altitude atmospheric physics, and semiconductor) that are hard to be established in general universities, but with certain conditions in CAS.

In September 1958, USTC was formally established in Beijing. Guo Moruo was authorized as the first president, and a total of 1 634 students were enrolled in that year <sup>[5]</sup>. In order to overcome the separation of scientific research and education, CAS proposed and implemented the guiding principle of establishing and operating universities by CAS and combining institutes with faculties. The 13 faculties at the beginning of the establishment of USTC respectively corresponded to different institutes of CAS. USTC hired famous scientists of CAS as teachers and heads of schools, departments, and teaching and research offices and arranged seniors to complete graduation design and thesis in the institutes.

Upon the demand for young scientific talents and reserve research forces, as well as the competition with the Ministry of Education for scientific and technological talents, it was an irresistible trend for CAS to establish a university for cultivating leading talents referring to the experience of Soviet Union in giving full play to the roles of scientists <sup>[6]</sup>. On September 21, 1958, *People's Daily* published a commentator article, which stated that the establishment of USTC was a major event in the history of education and science in China <sup>[7]</sup>.

At the same time, CAS founded China University of Scientific Information, which was merged into USTC in 1959 as the College of Science and Technology Information <sup>[8]</sup>.

On March 22, 1959, the Decision of the Central Committee of the Communist Party of China (CPC) on Designating a Group of Key Universities designated 16 key universities, including USTC which had been established for only one year.

## 2 Impact of Great Leap Forward and policy adjustment of scientific and technological education

After initiation of the Great Leap Forward in 1958, the colleges and universities were blindly developed around China. CAS has established 19 colleges and universities since 1958 <sup>[9]</sup>, including Northwest Institute of Biological and Soil Science established by Northwest Institute of Agricultural Biology, Changchun College of Chemistry established by Institute of Applied Chemistry, College of Soil Science established by Institute of Forestry and Soil Science, Dalian College of Chemical Physics established by Dalian Institute of Chemical Physics, and College of Metal Research established by Institute of Metal Research, CAS.

On May 5, 1959, CAS passed the *Decision on Current Situation and Several Issues of All the Operated Universities*, and started reorganizing and merging the newly established colleges and universities. Most of the colleges and universities were ceased in succession, and only a few with certain historical influence were retained.

(1) Changchun College of Optics and Fine Mechanics. In August 1958, Changchun Institute of Optics and Fine Mechanics, CAS established Changchun College of Optics and Fine Mechanics, and Wang Daheng was elected as the first president. In August, Changchun Institute of Mechanical and Electrical Engineering, CAS established Changchun College of Mechanical Engineering. In 1960, both the two institutes and two colleges were merged, and Changchun College of Optics and Fine Mechanics was still adopted. With the development of Changchun College of Optics and Fine Mechanics, the pressure and difficulties of running universities were increasing. Through joint efforts of Wang Daheng and the leaders of CAS, the State Council approved the retention of Changchun College of Optics and Fine Mechanics on August 20, 1962, under the leadership of CAS and Commission of Science, Technology and Industry for National Defense (COSTIND), dominated by CAS. This college officially became one of the 407 colleges and universities in China, and the only one retaining among more than 10 colleges and universities established in Changchun since 1958 <sup>[10]</sup>. After 1968, the college was successively subordinated to COSTIND, Fifth Ministry of Machinery Industry, National Machinery Industry Commission, Ministry of Mechanical and Electronic Industry, and China Weapon Industry Corporation. In 1999, it was jointly operated by Jilin provincial government and COSTIND, and dominated by Jilin provincial government. In 2002, it was renamed as Changchun University of Science and Technology <sup>②</sup>.

① It was established by Siberian Branch of Soviet Academy of Sciences.

② Introduction of Changchun University of Science and Technology. [2020-09-30]. <http://www.cust.edu.cn/xxgk/xxjj/index.htm>.

(2) Shanghai University of Science and Technology. It was founded in 1958 by the East China Branch of CAS. Zhou Ren, vice president of East China Branch, served as the president, and the leaders of the branch served as heads of colleges. In September, the university enrolled students in name of Shanghai Branch of USTC. One year after establishment, Shanghai University of Science and Technology was handed over to Shanghai municipal government for management. In May 1994, Shanghai University of Science and Technology, Shanghai University of Technology, Shanghai College of Science and Technology, and the former Shanghai University were merged as Shanghai University<sup>①</sup>.

(3) Gansu University of Science and Technology. In September 1959, Gansu University of Science and Technology, founded by Lanzhou Branch of CAS, was opened under the leadership of CAS and Gansu provincial government, dominated by CAS. In August 1960, it was merged into Lanzhou University<sup>②</sup>.

### 3 Spring of science and recovery and development of CAS's higher education

During the Cultural Revolution, the educational work of CAS was basically in stagnation. In early 1970, USTC was moved to Hefei, Anhui. Under the circumstance that CAS was "dismembered," USTC was jointly led by Anhui provincial government and the Third Ministry of Machinery Industry for a certain period of time, and it was returned to CAS in July 1973<sup>[11]</sup>.

In March 1978, the CPC Central Committee and the State Council convened the National Conference on Science in Beijing, which represented the bringing of order out of chaos in the field of science and technology, and an opportunity and starting point for the opening up and reform of scientific and technological work in China<sup>[12]</sup>. The spring of science finally arrived.

#### 3.1 Establishment and operation of universities

For realizing development under the new situation, CAS should recruit and cultivate a large number of talents. Since science disciplines dominated at USTC at that time, CAS planned to establish a college of precise instrument, or reconstruct one based on a college of engineering<sup>[13]</sup>. CAS took Zhejiang University, Shanghai Jiao Tong University, PLA Military Institute of Engineering, and Changchun College of Optics and Fine Mechanics as the candidates. Because PLA Military Institute of Engineering and Changchun College of Optics and Fine Mechanics belonged to military industry sector, their adjustment procedure was complicated.

Considering CAS had more cooperation and exchanges with Zhejiang University, and Zhu Kezhen, former president of Zhejiang University, had served as the Vice President of CAS, Zhejiang University was taken as the first choice. After learning the news, the leaders of Heilongjiang Province and Sichuan Province applied to participate in the selection. Therefore, CAS took over Harbin Science and Technology University and Zhejiang University in August 1978, and Chengdu University of Science and Technology in late 1978.

(1) Zhejiang University. CAS invested the most in the construction of Zhejiang University among these three universities. In December 1978, Qian Sanqiang, vice president of CAS, concurrently served as the president of Zhejiang University. The department settings of the university were adjusted according to the new educational concept, and a batch of construction projects were completed. According to its agreement with Alexander von Humboldt-stiftung, CAS selected teachers from Zhejiang University to Germany for an academic visit. Lu Yongxiang, a young lecturer at College of Mechanical Engineering, was lucky to be included. Thanks to the operation by CAS from 1978 to 1981, Zhejiang University developed rapidly in the following decade, thus ranking among the top universities in China.

(2) Harbin Science and Technology University. In March 1978, Heilongjiang College of Engineering was renamed as Harbin Science and Technology University and led by CAS and Heilongjiang provincial government, dominated by CAS. Wang Daheng was appointed as the president, and it was planned to be constructed into a university for cultivating professionals in instruments, apparatus, and testing technologies.

(3) Chengdu University of Science and Technology. In October 1978, Chengdu College of Engineering was renamed as Chengdu University of Science and Technology and listed as one of the national key colleges and universities. This university was under the leadership of CAS and Sichuan provincial government, dominated by CAS.

Although CAS fully supported the establishment and operation of colleges and universities, it felt increasing stress after 1981. Therefore, CAS proposed handing over two universities and keeping two only, which aroused different opinions among the leaders. Fang Yi, President of CAS at that time, decided to hand over all the others and only keep USTC<sup>[13]</sup>.

In the second half of 1981, CAS successively handed over three universities. Zhejiang University and Chengdu University of Science and Technology were handed over to the State Education Commission. The latter was merged into Sichuan Union University with Sichuan University in 1994, and then renamed as Sichuan University in 1998). Harbin

① History of Shanghai University. [2020-09-30]. <http://www.shu.edu.cn/xxgk/sdxs2.htm>.

② Establishment and development period of CAS Lanzhou Branch (1958.8-1962). [2020-09-30]. <http://www.lzb.cas.cn/yk/lsyg/clfz/>.

Science and Technology University was handed over to General Administration of Instrumentation Industry. It was merged into Harbin University of Science and Technology.

### 3.2 Development and reform of continuing education

In the 1980s, CAS ushered in a period of vigorous development of continuing education. In 1983, the Staff University of Science and Technology, Chinese Academy of Sciences was established, and it also hung the board of Beijing Radio and Television University CAS Branch. In September 1983, Beijing Institute of Management of Chinese Academy of Sciences (BIMCAS) was established, the predecessor of which was Further Education College of Cadres of CAS established in 1980. The newly established BIMCAS was not only the base for training management cadres and conducting management science research, but also responsible for carrying out higher education for adults. In May 1987, the CAS Staff University of Science and Technology was merged into BIMCAS. In June 1988, the College of Management Cadres and USTC jointly established the College of Management, USTC, which enrolled junior college students and jointly cultivated postgraduates. In September 2000, CAS appointed BIMCAS to assume the teaching tasks of the Party School of the Central Committee of C.P.C CAS Branch. In March 2005, BIMCAS was merged into the Graduate School of Chinese Academy of Sciences.

## 4 Formation of an education system centered on colleges and universities affiliated to CAS in the 21st century

According to the operation guidelines of CAS in the new era, education is an important part of the “3-in-1” portfolio (cutting-edge research, strategic consultation, and higher education, backed by its research institutes, academic divisions, and educational institutions) of CAS and the basis for the strategic mission of making achievements, cultivating talents and proposing ideas. CAS has established an education system centered on subordinated colleges and universities, based on institutes, focused on the cultivation of postgraduates, and closely integrated with technological innovation<sup>①</sup>. At present, the subordinated colleges and universities of CAS include University of Chinese Academy of Sciences, USTC, ShanghaiTech University, and Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences under construction.

### 4.1 University of Chinese Academy of Sciences (UCAS)

UCAS was formerly Graduate School of Chinese

Academy of Sciences established in Beijing, March 1978, with the former name of Graduate School of University of Science and Technology of China. At the beginning of the establishment, it was mainly responsible for basic course teaching for postgraduates of the CAS institutes in Beijing, and the postgraduates mainly performed research practice in corresponding institutes. With the right to award academic degrees, the institutes are the main force and basic organizational units for cultivating postgraduates. However, the postgraduate education of CAS has not been included in the national educational system due to various reasons, which is not conducive to the large-scale development of postgraduate education. In December 2000, CAS integrated the postgraduate education resources scattered in various institutes with the Graduate School of USTC (Beijing). In February 2001, the Graduate University of Chinese Academy of Sciences (GUCAS) was formally established upon approval of the Ministry of Education, and it exercised the right to confer academic degrees to postgraduates cultivated by CAS institutes, which was a major change to the postgraduate education system and academic degree authorization system of CAS<sup>[14]</sup>. In June 2012, as approved by Ministry of Education and Office of Central Institutional Organization Commission, GUCAS was renamed as UCAS and then started recruiting undergraduates in 2014.

UCAS has established a unique university governance system featuring the integration of scientific research with education, and implemented the co-construction, co-governance, sharing, and win-win system with CAS institutes. As the first responsibility unit undertaking the construction of colleges, CAS is responsible for discipline construction and talent cultivation of all colleges of UCAS. Relying on the strong scientific research advantages of CAS, UCAS has ranked the first in competitiveness of domestic postgraduate schools in the Evaluation Report of Postgraduates Education in China. In the fourth round of national discipline evaluation in 2017, 30 disciplines of UCAS were rated as Class A, including 18 A+ disciplines. In September 2020, UCAS ranked the 67th globally in ESI and the 1st among Chinese universities. In 2019, it ranked the 1st in Nature Index 2019 Top 175 Young Universities.

### 4.2 USTC

In early 1970, USTC was moved to Hefei, Anhui, a place far away from the capital, and at the same time, it basically lost the support of CAS and senior teachers, which made its material conditions as harsh as those in the period of establishment. After the reform, USTC rose again in a few years, and its development momentum was even much greater<sup>[15]</sup>. In December 1995, USTC was selected as one of the first 15 universities of Project 211. In 1999, it obtained the support of Project 985, becoming one of the first 9 universities enjoying

① Introduction of education of CAS. [2020-10-08]. [http://www.cas.cn/rcjy/zkyjyj/201704/t20170411\\_4596697.shtml](http://www.cas.cn/rcjy/zkyjyj/201704/t20170411_4596697.shtml).

the priority of construction. In 2000, it was also selected for participating in the Knowledge Innovation Program of CAS. In 2017, it was selected as one of Class A World-Class Universities for Construction. At the new historical starting point, it accelerated the construction of a world-class university with Chinese characteristics and USTC style <sup>①</sup>.

### 4.3 ShanghaiTech University

ShanghaiTech University, a full-time general institute of higher education founded on September 30, 2013, was jointly established by Shanghai Municipal People's Government and CAS, and managed by Shanghai Municipal People's Government. This university started recruiting undergraduates in 2014, and recruited and cultivated postgraduates together with UCAS from 2013 to 2016. Since 2017, it started independently cultivating postgraduates <sup>②</sup>.

### 4.4 Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences

In November 2018, Shenzhen Municipal People's Government signed an agreement with CAS, for establishing the university named Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences (tentative name) relying on the existing CAS Shenzhen Institutes of Advanced Technology. In October 2019, the university was included in the "13th Five-Year Plan" for establishment of universities in Guangdong Province as approved by Ministry of Education and Guangdong Province, with the mission of providing talent and intellectual support for the construction of Guangdong-Hong Kong-Macao Greater Bay Area <sup>③</sup>.

## 5 Conclusion and comments

As an important research base and training base for advanced technology and management talents, CAS has formed a unique mode of establishing and operating universities and cultivating talents, making irreplaceable contributions to development of scientific research and education in China.

(1) CAS has implemented a series of pioneering activities in postgraduate education, degree awarding, and modern university system construction. It took the lead in establishing the postgraduate cultivation system, established new-style universities of science and technology for promoting the integration of teaching with scientific research. In addition, CAS established the first graduate school, cultivated the first doctor of science, the first doctor of engineering, the first female doctor, and the first double-degree doctor, making many records in the history of postgraduate

education and fostering a large number of high-level talents for China.

(2) CAS has created a mode of establishing universities and cultivating talents. This mode, integrating scientific research with education, features Chinese characteristics. With the aim of promoting discipline construction based on national scientific research projects, CAS has basically formed the discipline layout of science and technology within 15 years after the founding of the People's Republic of China. While adhering to the simultaneous development of scientific research and education, CAS has gradually formed a "two-stage" cultivation mode suitable for postgraduate education, so as to promote teaching and education, as well as integration and mutual improvement of discipline construction and scientific research.

(3) CAS has explored new paths for talent cultivation in scientific research institutions to strengthen the integration of scientific research with education and promote the all-round development of higher education in China. With high-level and organizational scientific research teams, good scientific research environment, and strong scientific research strength, scientific research institutions in China can play a great role in fostering high-level innovative and entrepreneurial talents. After the establishment of UCAS, University of Chinese Academy of Social Sciences (UCASS) was established in 2017, and China University of Nuclear Technology and University of China Academy of Chinese Medical Sciences are also prepared to be established. As the beneficial complement to the current pattern of China's higher education, scientific research institutions have played scientific research advantages and continuously improved the quality of talent cultivation, and they will enrich the establishment of World-class Universities and Disciplines in China.

(4) CAS has promoted theoretical and practical innovation of higher education. While taking the initiative to explore the law of education development, CAS has implemented the scientific research-education integration mode based on the integration and mutual promotion of high-level scientific research and high-level talent cultivation. The universities with this integration mode are the development platforms for scientific research and education, the cross-academic and cross-disciplinary cooperation platforms, and the innovation platforms for layout, incubation, and breakthrough of inter-disciplines and emerging strategic disciplines. CAS has implemented and developed the mode of establishing universities based on cross-organization integration of scientific research with education, which can efficiently transform superior research resources into rich educational resources, and achieve theoretical and practical innovation

① Introduction of University of Science and Technology of China. [2020-10-09]. <http://www.ustc.edu.cn/xxgk/xxjj.htm>.

② Introduction of ShanghaiTech University. [2020-10-08]. <http://www.shanghaitech.edu.cn/1054/main.htm>.

③ Overview of education of CAS Shenzhen University of Technology. [2020-12-08]. <http://www.siat.cas.cn/yjsjy2016/jygk2016/>.

with multiplication effect based on the interaction between scientific and technological innovation and talent cultivation.

As the main undertaker of national strategic research missions and the active explorer and reformer of higher education, CAS has made great effort to establish and operate universities, and its practice of integration of scientific research with education will produce great significance in the history of world higher education.

## References

- 1 Xiang M. Guo Moruo's consistent efforts and practice to improve the research talents team of Chinese Academy of Chinese Academy of Sciences. *Journal of Guo Moruo Studies*, 2019, (2): 23–27 (in Chinese).
- 2 Ding Z L. Postgraduate Education History of University of Chinese Academy of Sciences. Beijing: Science Press, 2016: 4–5 (in Chinese).
- 3 Li S S, Wang Y F. Cultivation of innovative and entrepreneurial talents in the new era through integration of research and education. *Universities and Disciplines*, 2020, (1): 128–137 (in Chinese).
- 4 Ding Z L. Postgraduate Education History of University of Chinese Academy of Sciences. Beijing: Science Press, 2016: 10 (in Chinese).
- 5 Zhu Q S. Chronological Record of University of Science and Technology of China. Hefei: Press of University of Science and Technology of China, 2008: 12 (in Chinese).
- 6 Ding Z J, Ding Y X. On the background and motivation of the founding of USTC. *Science & Culture Review*, 2018, 15 (5): 37–55 (in Chinese).
- 7 Xinhua News Agency. An important event in the history of education and science in China—Founding of University of Science and Technology of China for the cultivation of cutting-edge scientific research talents with communist consciousness. *People's Daily*, 1958-9-21 (02) (in Chinese).
- 8 Shi Q G, Xiao X M. Education for Library Science in China from 1949 to 1966. *Library Tribune*, 2020, 40 (8): 18–24 (in Chinese).
- 9 Zhang L. Education History of Chinese Academy of Sciences. Beijing: Science Press, 2009: 40 (in Chinese).
- 10 He Z L. The glorious start in 1958 (II)—The remaining of Changchun College of Optics and Fine Mechanics in the adjustment. *Journal of Changchun University of Science and Technology*, 2018-4-30 (03) (in Chinese).
- 11 Zhang L. Education History of Chinese Academy of Sciences. Beijing: Science Press, 2009: 47 (in Chinese).
- 12 Wang Y Z. Historical transformation of Chinese science and technology—National Science and Technology Conference of 1978 revisited. *Bulletin of Chinese Academy of Sciences*, 2018, 33(4): 351–361 (in Chinese).
- 13 Xiong W M. Several major events in the history of education of CAS: An interview with Prof. Ma Xianyi. *The Chinese Journal for the History of Science and Technology*, 2009, 30 (2): 165–179 (in Chinese).
- 14 He Y. A review and a prospect of the postgraduate education in the Chinese Academy of Sciences. *Academic Degrees & Graduate Education*, 2001, (12): 1–4 (in Chinese).
- 15 Xiong W M. Why University of Science and Technology of China could produce talents. *Science & Culture Review*, 2018, 15 (3): 52–69 (in Chinese).



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