





A. A Brief Overview of CAS

B. CAS International Strategy

C. CAS President's International Fellowships Initiative (PIFI)



Multiple Roles of CAS in the NIS

A National Team

representing the highest standards of science & technology in China





Three Core Functions

A Comprehensive R&D Performer

A Merit-based National Academy

A Higher/graduate Education Provider



106 research institutes 800

members **92** foreign members

3 Universities 70,000+ students



CAS is everywhere

The headquarters is based in Beijing, with **12** branches located in major cities of China.

It also includes **106** institutes across the country, conducting research and development in the frontiers of science and technology.





Home to Mega-science Facilities

More than 85% of China's mega-science facilities lodged within CAS.





Always in the Frontiers of Science & Technology: from Deep Earth, Deep Ocean to Deep Space



90% effective payloads on manned space missions



Major breakthroughs in quantum communication with pilot tests

Most sensitive with the world's largest single-aperture



DAMPE: World's widest observation range & optimal energy resolution





China's first tenthousand-meter abyss exploration task in Mariana Trench



Daya Bay Neutrino Experiment detected a new kind of neutrino transformation in 2012



Many Firsts in China and the World

CAS has achieved many "firsts" in STI in China and the World.





A Major Contributor to Quality Science

2018 tables: Institutions According Table criteria Subject/journals Region/country Sector Global All All Generate ¥ Ψ. ٧ 1600 The 2018 tables are based on Nature Index data from 1 January 2017 to 31 December 2017. Request a badge 🏶 Change in 1400 Institution FC 2016 FC 2017 AC 2017 Adjusted FC 2017 2016-2017 1200 Chinese Academy of Sciences (CAS), China 1590 28 1510 38 4088 -3.9% 2017 FC 2017 AC 2017 Institution FC 2016 Chinese Academy of Sciences (CAS), China 1590.28 1510.38 4088 2 Harvard University, United States of America (USA) 883 4 889 47 2233 3 Max Planck Society, Germany 759.71 734.95 2289 French National Centre for Scientific Research (CNRS), France 766.89 702.01 3981 4 5 Stanford University, United States of America (USA) 605.7 608.77 1450



Productivity in terms of Patents

Patent Applications & Patents Granted By CAS and major top Chinese Universities



Source: CAS Patent Analysis System (2017)



Tech Transfer and Commercialization

350

300

250

200

150

100

50

2001

- Translate research results into value-added technology and products
- Partner with local government and industry
- Establish joint research institutes, tech transfer centers and incubators

	Jointly established institutes	11
With local government	CAS tech transfer centers or incubators	28
	Institute-level technology transfer or incubation centers	349
With industry	Institute-level engineering centers	392

Top 6 priorities for technology transfer

- Novel materials technology
- Advanced manufacturing
- Cost-effective biomedicine and medical diagnostic/treatment devices
- Agricultural technology
- Electronics and IT Technology
- Clean energy technology



Profit(billion RMB)

——— Sales Revenue(billion RMB)



Integrating Research with Higher Education

There are close connections between research and teaching at CAS universities : Students have free access to state-of-the-art research facilities.







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Goals of CAS International Strategy

Since 2013, CAS has implemented an open development strategy called *"internationalization"*

To further raise

The international standards and standing of CAS research & education

To further enhance

- CAS's role in addressing regional & global challenges, and
- its position as a hub and center of excellence for int'l cooperation in science, innovation & education.



Focuses of CAS International Strategy





Initiatives for CAS International Strategy

Six major initiatives have been launched to implement the Strategy.

*** PIFI:** President's International Fellowship Initiative

*** IOI:** International Outreach Initiative

*** IPP:** International Partnership Program

*** IEP:** International Engagement Program

*** IEI:** International Environment Initiative

*** ANSO:** Alliance of National Science Organizations





Actions under CAS International Strategy

1. Offer International Fellowships

An international fellowship program called PIFI has been launched to provide a full range of opportunities for international researchers (from research students to early/mid/late-career researchers) to work or study at CAS-affiliated institutes or universities.



challenges

CAS is committed to doing best science to address big issues and global challenges for sustainability of our planet. The PIFI program provides a full package of fellowships to support international researchers to work with CAS.





President's International Fellowship Initiative

Seven categories of fellowships (A-G) are provided for international researchers at different stages of their career development.

CATEGORY A: For Distinguished Scientists

WHAT TO DO?

 Conduct a lecture tour in at least two CAS branches in 1-2 weeks

 Host CAS postdoctoral researchers at CAS expenses at his or her lab for 1-3 months.

WHAT DO WE OFFER? ¥ 50,000 per week



WHO CAN APPLY?

- Be well-established and internationally recognized.
- Be recommended by a CAS institute.

C Find Your Host



CATEGORY B: For Visiting Scientists

WHAT TO DO?

Carry out cooperative projects at CAS institutions for 2-9 months

WHAT DO WE OFFER?

per month respectively Offering round trip fight ticket subsidy

WHO CAN APPLY?

- Be an assistant professor or above.
- Have worked in a well-known university or research institution.
- Have a cooperative research proposal with a CAS host researcher and the intention to come to China.

CP Find Your Host



CATEGORY C: For Postdoctoral Researchers

WHAT TO DO?

Conduct research at CAS-affiliated institutions 1-2 years

WHAT DO WE OFFER?

¥250,000 per year Plus round trip fight ticket subsidy

WHO CAN APPLY?

- Hold a PhD in natural or technological sciences.
- Age < 40
- Be recommended by a CAS host researcher.
- Be dedicated to the program, with no other assignments.

Find Your Host



CATEGORY D: For Special Experts

WHAT TO DO?

Work full-time at CAS's urgently needed posts for 2-3 years.

WHAT DO WE OFFER?

PIFI provides up to 60% of the contract amount agreed by the two parties, with the remaining 40% supported by related CAS institutes.

WHO CAN APPLY?

Individuals who meet the needs of the special posts and pass the recruitment and selection procedure
Foreign personnel who can undertake fulltime and long-term employment for CAS

IC Check The Postion



CATEGORY E: For Young Staff

WHAT TO DO?

Conduct full-time academic research work in CAS for three years.

WHAT DO WE OFFER?

In addition to your institute's compensation, PIFI will give **100,000** yuan each year as an additional stipend.



WHO CAN APPLY?

Foreign staff members employed by CAS
Have been working for less than three years in CAS
Associate professors and below
Obtained recommendation of institutes

IC Join CAS



CATEGORY F: For PhD students

WHAT TO DO?

Take regular training courses at UCAS and USTC 1 year
Carry out research and dissertation at CAS institutes
Pursue PhD degree at CAS for 3 years maximum
Tuition waiver of up to years

WHAT DO WE OFFER? Y7,000 or Y8,000per month for living subsidies



WHO CAN APPLY?

 Hold a Master's degree before the start of the fellowship period

- Age <
- No other assignments
- Meet the admission criteria for international students of UCAS*/USTC*
- Working in English or Chinese

IC UCAS website at C USTC website at

* UCAS: University of Chinese Academy of Sciences * USTC: University of Science and Technology of China



CATEGORY G: For Master students

WHAT TO DO?

 Take regular training courses at UCAS and USTC 1 year

 Study specialized courses at CAS institutes, conduct scientific practice and finish an academic dissertation

Three years (maximum, extensions not accepted)

WHAT DO WE OFFER?

Tuition fee waiver **4000+** yuan per month of living subsidies

WHO CAN APPLY?

 Individuals who meet the admission requirement of UCAS/USTC

- Age<30
- Hold a bachelor's degree
- Are recommended by a supervisor and the related CAS affiliated institute or university
- Have proficiency in English or Chinese



Actions under CAS International Strategy

- **1. Offer International Fellowships**
- 2. Develop International Partnerships

An international partnership program (IPP) is implemented to promote strategic partnership and sustainable collaborations with leading international teams and institutions.



International Partnership Program (IPP)

(A) Match Fund for Joint Workshop /R&D Projects	(B) Project-based grants for Joint Centers of Excellence	(C) Special Project Fund for S&T Collaboration under the B&R Initiative	(D) Seed Fund for International Big Science Program
To foster bilateral institutional partnerships	To foster bilateral team partnerships	To foster regional/ multilateral partnerships	For global /multilateral partnerships



Joint Centers of Excellence

CAS Pasteur Institute Shanghai

CAS-MPG Partner Institute for **Computational Biology**

China-France **Biosafety Laboratory**

CAS-John Innes Centre of Excellence for Plant Sciences











Focusing on virology and immunology

To focus on collaborative research in bioinformatics

China's first lab with the highest bio-safety standards

To address the global challenge of food security



CAS-TWAS Centers of Excellence

- Focusing on areas of common challenges: Food, Health, Energy, Water, Climate Change, Disaster.....
- Providing research training opportunities for visiting scholars from developing countries other than China





Alliance of National Science Organizations (ANSO)

- **1. Offer International Fellowships**
- 2. Develop International Partnerships
- 3. Establish International Networks

An alliance of national academies, universities and international organizations (referred to as ANSO) is being established this year to address global/regional challenges under the B&R Initiative.



International Outreach Initiative(IOI)

An international outreach initiative (IOI) has been implemented to enhance CAS's international presence and cooperation with developing and developed countries, focusing on the establishment of joint centers of excellence outside China.

4. Enhance International Engagement

5. Create an International Environment



International Centers of Excellence for Science & Education Collaboration (Overseas)





Actions under CAS International Strategy

CAS is making every effort to create an international environment which is culture-diversified, friendly and comfortable to international visitors, students and staff.

5. Create an International Environment



International Environment Initiative(IEI)

The aim is simple: to attract international visitors for scientific excellence.





To go fast, one may go alone. 独行快 To go far, we must go along. 众行远 Thank you for your attention!

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