



INSTITUT DE FRANCE
Académie des sciences



FONDATION FRANCO-CHINOISE POUR LA SCIENCE ET SES APPLICATIONS (FFCSA) POST-DOCTORAL FELLOWSHIPS OFFERED

PROMOTION 2014

Call of offers

(18 months or 24 months)

Call for candidates: January 1st, 2014

FFCSA's Fellowships are awarded for 18 months or 24 months.

They are exclusively aimed at candidates living in mainland China who wish to come to France. Chinese scholarship holders currently in France who are seeking to extend their stay are not eligible to apply.

Fellowships offered are aimed exclusively at post-doctoral scholars, who have obtained their Ph.D. before the end of December 2014 and within the last 6 years and are under 35 years of age. A fluent knowledge of English is a pre-requisite for admission.

Selection of candidates is a three-stage process:

- 1) call of offers, and short-listing of candidates in China, under the guidance of China Scholarship Council (CSC) and the Chinese Academy of Sciences (CAS) which select three times as many candidates as there are fellowships on offer.
- 2) interviews in China, in Beijing and Shanghai, by an FFCSA expert panel from France (candidates' travel costs to the interview locations are at the candidates' expense).
- 3) Final decision in France by the FFCSA's Scientific Council on the candidates selected and on their host laboratories in France, with the confirmation of CSC and the CAS.

The timetable for the fellowships promotion 2014 award is as follows:

- **January 1st, 2014:** Call of proposal publication in French, English and Chinese of the Fellowships offered for promotion 2014.
- **March 21st, 2014:** deadline for applications in China and in France.
- **From Aprils 14th to April 18th, 2014:** interviews of short-listed candidates in Beijing or Shanghai by examiners sent by the FFCSA; ranking of candidates for each fellowship offered.

- **End of May, 2014:** final decision on candidates selected by the FFCSA's Scientific Council, with the confirmation of CSC and the CAS; candidates selected will be immediately informed and will be required to start learning French intensively before leaving China (French training lessons in charge of the CSC).
- **Mid June- October 2014:** French training lessons in China.
- **November 2014:** arrival in France of candidates selected.

The international plane fare from China to France and return is taken in charge by the CSC. The travel cost to provincial France when necessary will be covered by the FFCSA. The total amount of the fellowship is **€ 2 500 net per month**. The cost of health insurance is covered by the FFCSA.

Whichever the date corresponding at research work during the fellowship, publications should mention imperatively the help of the FFCSA and CSC.

During his/her stay in France, each scholar will be counselled by the FFCSA whose task is to ensure the harmonious integration of the scholar and the smooth development of his/her research programme. The scholar's return to China is mandatory. FFCSA had created an Alumni Club in January 2005.

For the class 2014, 18 months or 24 months, beginning November 2014 fellowships offered are in the following subjects in the laboratories selected by the FFCSA:

- Ø Dye-sensitized solar cells with perovskite absorbers.
- Ø Novel nanostructured materials for thermoelectric.
- Ø Control of pancreatic development in rodent and human.
- Ø Role of cytokines and lymphocytes in inflammatory diseases.
- Ø Immunological properties of mesenchymal stem cells and their applications in transplantation and regenerative medicine.
- Ø Development of innovative nanomaterials to address energy and information technology issues.
- Ø In vivo and in vitro analysis of the potential ability and fate of ACE+ identified pre-Hematopoietic Stem Cells of the early human embryo.
- Ø Analysis of Transfusion-related acute lung injury in mouse models humanized for the expression of HLA class I molecules: role of human antibodies and analysis of cellular responses using in vitro and in vivo systems.
- Ø Synthesis of potential biological active compounds for therapeutic as well as molecular imaging applications.
- Ø Preparation of molecular sieves with multi-scale organization and their use as heterogeneous catalysts.
- Ø Advanced Characterization of Surface Properties of Porous Materials for Clean Fuel Production.
- Ø Preparation of nanosized zeolites and controlled deposition in films/membranes.

- Ø Identification of the molecular events leading to prostate cancer using mouse models established through conditional somatic mutagenesis.
- Ø Pathophysiological role of androgens and glucocorticoids in mouse skeletal muscles.
- Ø Toward the Spatial function: identification of protein-protein interaction network.
- Ø Atom interferometry gravity sensors.
- Ø Fluorescence of hybrid nanoparticles with plasmon influence.
- Ø Improving the current regimen of TB (Tuberculosis) using new innovative approaches.
- Ø Design & Synthesis of compounds for metabolic, autoimmune and infectious diseases.
- Ø Interfacial reactions in lithium-ion batteries studied by surface techniques: XPS and ToF-SIMS.
- Ø Industrial wastewater treatment by continuous ozonation flow-through porous oxides deposited on monolithic reactors.
- Ø Novel nanoreactors with encapsulated metal particles for efficient Fischer-Tropsch synthesis.
- Ø Model strong interactions between irregular porous particles immersed in a circulating liquid.
- Ø Elastin derivatives biopolymers to design parenteral drug delivery systems.
- Ø Photothermal microscopy for characterization of optical thin films and development of components of high long-term resistance to laser irradiation
- Ø Acoustics: Modeling and inversion of acoustic wave propagation, numerical modeling and computing aspects

IMPORTANT

If the applicant chooses 2 thematic, he /she has to give his/her preference whether A or B

Candidates application's package should include (see the application form):

- a detailed CV,
- a motivation letter pointing out either the suitability of your CV,
- the scientific publications,
- the research grants,
- and two letters one from the head of the laboratory and one from the President of their University or from a Science Academician if he or she is not working in a University.

Candidates should send their application package by e-mail at all the following addresses ffcsa@academie-sciences.fr and yzhang@csc.edu.cn and xflu@cashq.ac.cn
The deadline is March 21st, 2014. Applications should be send in parallel by mail to Mme ZHANG Ying, Project Officer, Division of Cooperation and Consultancy, China Scholarship Council, 9-A3 Chegongzhuang street Beijing 100044, P.R.China , e mail : yzhang@csc.edu.cn .

The China Scholarship Council will inform the FFCSA and the Chinese Academy of Sciences of the progress timely.

Chinese version and forms are available
the post-doctoral fellowships offered is also available at URL <http://www.csc.edu.cn> and on
the website of the Chinese Academy of Sciences, French and English versions are available at
URL <http://www.academie-sciences.fr/activite/inter.htm> and <http://www.ffcsa-club.org/fr/newscenter.html>