

2017 ICIQ PhD FELLOWSHIP PROGRAMME

The Institute of Chemical Research of Catalonia (ICIQ) establishes the PhD Fellowship Programme with the aim to support excellent students from all over the world to enrol in a training and research programme in the area of chemistry ultimately leading to the completion of a Doctoral Thesis in partnership with the Universitat Rovira i Virgili (URV). The programme will also contribute to their professional development and next career steps, both in academia and industry.

- This objective is achieved by:
 - The performance of an individual research project under the direction of an internationally renowned group leader in a creative and stimulating scientific environment.
 - Opportunities for short stays in renowned international research institutions.
 - Opportunities for complementary training designed to ensure a successful career: weekly scientific seminars, hands-on training in the use of state-of-the-art scientific instrumentation, IP management, entrepreneurship, knowledge and technology transfer, grant's applications, and communication skills.

The program is addressed to highly qualified and talented graduate students with a keen interest in chemical research. Candidates should have an excellent academic record, strong commitment to scientific research and solid working knowledge of English.

Admission to the programme is on a competitive basis.

I. Available positions: See Annex 1

II. Eligibility criteria

The programme is open to graduate students, from any nationality that fulfils the following eligibility criteria:

- a. Candidates must have a Master or an equivalent degree in the areas of Chemistry, Pharmacy, Physics, Biological chemistry, Biochemistry or Chemical Engineering, which must be completed by the time of enrolment in the PhD programme.

In case of doubts about the eligibility criteria, applicants should contact the ICIQ Human Resources Team at positions@iciq.es prior to submission of the application.

III. Application process

All the application procedure will be made online. Other means of application will not be considered. Applicants must fill out and submit the online application form available at the Jobs & Grants section on ICIQ's website (<http://www.iciq.org/jobs-grants/>).

After completing online the personal data fields, applicants must attach the following documents:

1) Required documentation

- a. A full **Curriculum Vitae** (in PDF format).
- b. A **Personal Statement** that describes the applicant's academic background, research experience and career goals (maximum two DIN A4 pages, in PDF format). This is a very important part. Please take the time to communicate what your interests are and how they would fit into carrying out your PhD at ICIQ. You should also mention in a clearly prioritized manner a maximum of two ICIQ groups that you would like to join to carry out your PhD and the reasons you are interested in the two ICIQ group leaders.
- c. **Official transcripts** of your BSc and MSc studies in PDF format. A scanned copy of the certified academic record of the studies granting access to the PhD programme (BSc and MSc if available). In case that the MSc studies have not yet been completed at the time of the application, include details on the subjects in which you are currently enrolled (subject name and number of credits). For academic records not issued in Catalan, Spanish or English, a certified translation in English should be provided. For degrees obtained in foreign institutions, the academic record must include the range of marks used in the corresponding countries and the minimum mark to pass, as well as the hours or ECTS and marks for each subject.
- d. **Academic Record file** in the excel format available on the online application platform, detailing the names of the subjects, marks and credits of your BSc and MSc if available, and the University marks scale applicable to your academic records.
- e. **Contact details for letters of recommendation** of two University professors or other relevant individuals who can assess your potential for research. We will

directly contact the persons you list for letters of recommendation. We suggest informing them.

2) Desirable documentation

- a. **Chemistry level:** The score of your Graduate Record Examination (GRE) – Chemistry Test is an added plus for evaluation.
- b. **English proficiency level:** Applicants from non-English speaking countries are strongly encourage to supply evidence of their proficiency in written and oral communication in the English language i.e TOEFL or IELTS scores.

Please note that documents sent in hard copy cannot be processed.

Applicants should select a maximum of two PhD supervisors in order of priority.

Once the application has been successfully completed, an acknowledgement e-mail will be automatically sent. Candidates must ensure that all information is included before the deadline. Incomplete proposals will not be considered.

Pursuant to Personal Data Protection Organic Law 15/1999, 13th December, We inform you that we will proceed to include your data in the Curriculum Viate file duly registered in the General Register of the Data Protection in the Spanish Data Protection Agency. The data provided will be used only for recruitment processes made by the ICIQ.

You can exercise your rights to access, cancel, rectify and oppose this information by writing to AV PAISOS CATALANS 16 TARRAGONA 43007-TARRAGONA or thought this mail address: LOPD@icq.es

III. Evaluation and Selection Process

The evaluation and selection of the candidates will be performed by the Human Resources Team, the ICIQ Academic commission and the project supervisor following this procedure:

1. Submitted proposals will be checked for eligibility and those not fulfilling all the criteria will be rejected. There will not be the possibility to modify the application or to add missing documentation after the call deadline.
2. The selection will be based on academic marks, scientific merits, academic and professional references, working knowledge of English and the personal interview.

3. At the late stages of the selection process, candidates may be contacted for a personal interview.
4. All applicants will be notified of the final selection decision by the first week of May. The name of the awardees will be published on the ICIQ's website.

Successful candidates will be requested to inform ICIQ whether they accept or decline the offer within one week after being notified. The offer will be considered declined if the applicant does not respond during this time.

According to the organic law 3/2007 of 22nd March for the effective equality between women and men, ICIQ declares it will ensure equality, value diversity, respect human rights and identify and remove potential barriers to equality. Our commitment to equality covers all the protected characteristics outlined in the Equality Plan: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, gender and sexual orientation.

IV. Fellowships' conditions

1. The awardees of an ICIQ PhD fellowship will be considered research personnel in training and they will have an employment contract (a pre-doctoral contract) which is regulated in the Spanish Law 14/2011, of June 1st, of Science, Technology and Education.
2. Pre-doctoral contracts are renewed annually for up to 4 years. Renewal is subject to satisfactory performance in the PhD studies and related research activities.
3. The gross yearly salary of the contract shall be €16.200, split into 12 monthly payments.
4. The fellowship includes full social security coverage through the Spanish Social Security system, providing access to the Spanish public health care system and pension and unemployment benefits.
5. The fellowship holder is entitled to temporary interrupt the fellowship in the following situations: temporary disability, risk during pregnancy, maternity, paternity and adoption or foster care. The time elapsed during this interruption will not be accounted for against the total time.
6. The contract will take effect on the date when the awarded student joins the centre.

7. The PhD fellowship includes the costs of enrolment in the PhD programme. These costs will be paid by each beneficiary to the university, and later they will be refunded by the ICIQ. The PhD thesis has to be completed within 4 years.
8. The PhD fellowship awardees will work full-time at ICIQ and may not receive any other fellowship or regular income.
9. The PhD fellowship is incompatible with any other fellowship with the same purpose.

Indicative Calendar

Call opening	January 23 rd 2017
Call deadline	March 24 th 2017
Notification to candidates	May 2 nd to May 5 th 2017
Start of fellowships	September-October 2017

Tarragona, January 20th 2017



Prof. Miquel A. Pericàs
ICIQ Director



Dr. Lluís Solà
ICIQ Administrative Director

Annex 1: Available Projects

Ref. 2017/01: Photochemical Enantioselective Organic Catalysis: Making Biologically Relevant Chiral Molecules with Light

Name of supervisor: **Prof. Paolo Melchiorre**

Ref. 2017/02: New Catalytic Strategies for Enantioselective Photochemistry

Name of supervisor: **Prof. Paolo Melchiorre**

Ref. 2017/03: Mechanistic Studies of Enantioselective Photo-Organocatalytic Processes.

Name of supervisor: **Prof. Paolo Melchiorre**

Ref. 2017/04: Light-driven Enantioselective Organic Catalysis

Name of supervisor: **Prof. Paolo Melchiorre**

Ref. 2017/05: Synthetic receptors and sensors for the supramolecular detection of low molecular weight molecules related to human health

Name of supervisor: **Prof. Pau Ballester**

Ref. 2017/06: Synthetic receptors and sensors for the supramolecular detection of low molecular weight molecules related to human health

Name of supervisor: **Prof. Pau Ballester**

Ref. 2017/07: C-H Amination Reactions for Alkaloid Total Synthesis

Name of supervisor: **Prof. Kilian Muñiz**

Ref. 2017/08: C-H Amination Reactions for Alkaloid Total Synthesis

Name of supervisor: **Prof. Kilian Muñiz**

Ref. 2017/09: Catalysts for Artificial Photosynthesis – Oxidations

Name of supervisor: **Prof. Antoni Llobet**

Ref. 2017/10: Catalysts for Artificial Photosynthesis – Reductions

Name of supervisor: **Prof. Antoni Llobet**

Ref. 2017/11: Functional cyclic organic carbonates as versatile precursors in selective fine chemical synthesis: a dual role of carbon dioxide.

Name of supervisor: **Prof. Arjan W. Kleij**

Ref. 2017/12: Stereoselective catalytic conversion of cyclic carbonates into high value fine chemicals.

Name of supervisor: **Prof. Arjan W. Kleij**

Ref. 2017/13: Catalytic synthesis of bio-sourced polymers using terpenes as molecular scaffolds.

Name of supervisor: **Prof. Arjan W. Kleij**

Ref. 2017/14: New Reactivity Concepts for Small Molecule Asymmetric Activations

Name of supervisor: **Dr. Marcos García Suero**

Ref. 2017/15: Continuous transformation of carbon dioxide to valuable chemicals and fuels by heterogeneous catalysis

Name of supervisor: **Dr. Atsushi Urakawa**

Ref. 2017/16: Discovery of supramolecularly regulated enantioselective catalysts for C-X bond forming reactions

Name of supervisor: **Prof. Anton Vidal**

Ref.2017/17: Gold-Catalysis for the Synthesis of Biologically Active Molecules

Name of supervisor: **Prof. Antonio M. Echavarren**

Ref.2017/18: Gold-Catalysis for the Synthesis of Biologically Active Molecules

Name of supervisor: **Prof. Antonio M. Echavarren**

Ref. 2017/19: Gold-Catalysis for the Synthesis of Biologically Active Molecules

Name of supervisor: **Prof. Antonio M. Echavarren**

Ref. 2017/20: Modelling and mapping pathways of electrochemical CO₂ reduction

Name of supervisor: **Prof. Núria López**

Ref.2017/21: Molecular catalysts for CO₂ reduction to CO and HCOOH

Name of supervisor: **Prof. Núria López**

Ref. 2017/22: Lignin valorization

Name of supervisor: **Prof. Núria López**

Ref. 2017/23: DFT characterization of single-electron processes in homogeneous catalysis

Name of supervisor: **Prof. Feliu Maseras**

Ref.2017/24: Charge transfer on hybrid photovoltaic devices: semiconductor nanocrystals/organic semiconductor molecule

Name of supervisor: **Prof. Emilio Palomares**

Ref.2017/25: Metal-catalyzed functionalization of strong sigma bonds

Name of the supervisor: **Prof. Ruben Martin**

Ref. 2017/26: Development of Photoredox Catalysis and Tandem Processes in Flow with Immobilized Species

Name of supervisor: **Prof. Miquel A. Pericàs**

Ref. 2017/27: Light-driven umpolung E+-E+ couplings

Name of supervisor: **Dr. Julio Lloret- Fillol**

Ref. 2017/28: Reductive Chemistry – Towards Solar Chemicals

Name of supervisor: **Dr. Julio Lloret- Fillol**

Ref. 2017/29: Photocatalytic C-H activations

Name of supervisor: **Dr. Julio Lloret- Fillol**

Ref. 2017/30: Electrocatalytic organic transformations

Name of supervisor: **Dr. Julio Lloret- Fillol**

Ref.2017/31: Advanced computational methods for catalysts design

Name of supervisor: **Prof. Carles Bo**