

CONSORZIO INTERUNIVERSITARIO PER LO SVILUPPO DEI SISTEMI A GRANDE INTERFASE

CSGI
c/o Dipartimento di Chimica "Ugo Schiff"
Università degli Studi di Firenze



Direttore Prof. Emiliano Fratini

CALL ID: CSGI-CA-12/2023

The *Center for Colloid and Surface Science (CSGI)* has an open position for a young researcher with expertise in the **synthesis of organic compounds and pharmaceutical ingredients by solution and mechanochemical methods**.

The successful candidate will have the opportunity to join the international, multidisciplinary team working at the cutting edge of scientific research in **mechanochemistry** within the project entitled **Innovative Mechanochemical Processes to synthesize ACTIVE pharmaceutical ingredients (IMPACTIVE)** supported by the Horizon Europe programme through the EU HORIZON-HLTH-2021-IND-07 call.

Time period:

February 1st, 2024 – July 31st, 2024 (contract renewable for an additional period of 6 months).

Location:

CSGI, Cagliari research unit – **Department of Mechanical, Chemical and Materials Engineering** of the University of Cagliari, via Marengo 2, 09123 Cagliari (Italy), **Department of Chemical and Geological Sciences** and **Department of Physics** of the University of Cagliari, Cittadella Universitaria di Monserrato, 09042 Monserrato (CA) (Italy)

Job Requirements:

CSGI is looking for a highly motivated young researcher with a Master degree in "**Chemistry and Pharmaceutical Technologies**" and years of experience in the **synthesis of organic compounds and pharmaceutical ingredients using a combination of solution chemistry and solid-state mechanochemistry** with special emphasis on the development of greener and safer routes to fine chemicals. More specifically, the candidate must meet the following **mandatory** requirements:

- Master degree in "**Chemistry and Pharmaceutical Technologies**";
- At last **three years** of experience in the use of **mechanochemical methods** to synthesize fine organic chemicals on the laboratory scale;
- At least **six months** spent in a laboratory located in a country different from the native one to hone the **skills in mechanochemistry** and develop **teamwork ability**;
- **Direct experience** of ring-opening, ring-contraction and ring-expansion reactions, reactions catalyzed by Brønsted acids, Tandem reactions, oxidation and reduction reactions, nitrosation reactions, preparation of active pharmaceutical ingredients and similar;
- **Proven expertise** in the synthesis of active pharmaceutical ingredients containing amino groups starting from **highly strained carbocyclic compounds**;
- **Proven expertise** in common separation and analytical methods to detect, identify, characterize and quantify chemical compounds;
- **Track record** of publications in **international peer-reviewed scientific journals** in the field of mechanochemistry (**at least 7 publications in the last 3 years**);
- **Oral communications** in national and international **conferences/schools** focused on advanced organic synthesis.

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The recruited candidate will have to:

- **Organize and perform** planned research work, **manage** laboratory activities, **design and set-up** new experimental methodologies;
- **Analyse** experimental data, **write** suitable reports, **participate** in the **IMPACTIVE consortium meetings** online and in person;
- **Develop** sustainable mechanochemical routes to value-added active pharmaceutical ingredients and **investigate** the rates of the involved reactions.

Gross salary: up to EUR. 15.000,00

For more information, please contact Prof. Francesco Delogu (francesco.delogu@unica.it)

All applicants must send:

1. [This signed application letter](#);
2. Academic CV (including a list of publications, a list of courses attended, and a list of talks given), description of research interests and research agenda;
3. Degree certificates;
4. List of all titles, documents and publications that can be relevant for the selection;
5. Contact details of -at least- two potential references;
6. Copy of a personal I.D. (printed on both sides);

All applications must be sent by email to recruitment@csgi.unifi.it **no later than 07th January 2024 – 17:00 CET.**

Please report the CALL ID (CSGI-CA-12/2023) in the subject of the email.

A colloquium with the evaluating committee might be requested. The colloquium can take place either face-to-face or via telematic meeting.

The commission will rank the suitable candidates; the ranking will be published on the CSGI website at https://www.csgi.unifi.it/work_with_us.php and will remain effective for a period of one year from the date of its approval. This ranking may be used by CSGI to replace the appointed candidates in the event of renunciation, non-employment, forfeiture, termination of the employment relationship, or for equivalent positions.

The winner of this position may be excluded if he/she would postpone the beginning of the research activity later than March 1st, 2024.

Personal data will be collected and handled according to the GDPR- General Data Protection Regulation (EU) 2016/679.

Sesto F.no, 5th December 2023