

Postdoctoral Researcher offer in Photoredox & Organometallic Catalysis for Sustainable API Synthesis

Position: Postdoctoral Researcher

Place: Institute of Chemistry for Life and Health Sciences (i-CLeHS) Chimie Paris Tech | PSL University

Supervisor : Prof. Jean-François Soulé

Location: 11 rue Pierre et Marie Curie, 75005Paris

Start Date: March–May 2025, for a period of 12 or 18 months, with the possibility of renewal.

Monthly gross salary: €2,900 to €4,100, depending on experience.

Application Deadline: : Rolling basis until all positions are filled.

Europe is at a critical juncture in its ambition to reindustrialize pharmaceutical production and reduce its reliance on external suppliers. A key to achieving this goal lies in the development of novel synthetic shortcuts—innovative, efficient, and sustainable methods that allow the streamlined production of Active Pharmaceutical Ingredients (APIs).

If you want to tackle key challenges in organic synthesis for the pharmaceutical industry and contribute to an applied research program, **we have four postdoctoral positions available.**

Under the supervision of **Prof. Jean-François Soulé** and in collaboration with a **leading CDMO industry partner**, you will be involved in a research project focused on **photoredox catalysis, organometallic chemistry, sustainable chemistry, and reaction mechanism understanding**, with the goal of improving **API manufacturing in Europe**.

▪ **Research Focus:**

As a postdoctoral researcher, you will develop **new synthetic strategies** for efficient, scalable, and sustainable API production, focusing on:

- **Synthetic Shortcuts:** Designing and optimizing novel routes using **photoredox and/or organometallic catalysis** to unlock new reactivity.
- **Catalyst Development:** Synthesizing and characterizing **new (photo)catalysts and ligands** for high efficiency, selectivity, and sustainability.
- **Reactivity & Mechanism:** Exploring and understanding of novel reaction pathways.
- **Industry Collaboration:** Working with pharmaceutical partners to translate research into real-world API manufacturing.

▪ **Candidate Profile (4 Positions Available):**

We are looking for **four motivated researchers** with a strong background in **synthetic chemistry and catalysis**. The ideal candidates should have:

- A **PhD in synthetic chemistry or catalysis** (experience in **photoredox catalysis** or **electrosynthesis** is a plus but not required).
- Expertise in synthetic organic chemistry, including air-sensitive techniques and key analytical methods (e.g., NMR, mass spectrometry, HPLC, cyclic voltammetry, UV-Vis absorption, fluorescence spectroscopy, etc.).
- Experience in conducting mechanistic studies.
- Strong **communication skills**, with a proven track record of **publications** and **conference presentations**.



- **About Hosting Institution:**

As a postdoctoral researcher in the Catalysis, Synthesis of Biomolecules, and Sustainable Development (CSB2D) Team at the Institute of Chemistry for Life and Health Sciences (i-CLeHS) within Chimie ParisTech - PSL, you will work in a well-equipped laboratory featuring Glove Box, NMR, MS, GC-MS, HPLC, CV, and UV-Vis/Fluorescence spectroscopy.

Chimie ParisTech - PSL is part of PSL University, a leading research institution that unites top-tier schools and research centers in France. PSL University consistently ranks among the world's top universities, including strong performance in the Shanghai Ranking for Chemistry and Natural Sciences. Specializing in chemistry, Chimie ParisTech hosts a research center recognized for its expertise in materials, processes, and molecular chemistry, maintaining strong industrial collaborations. The i-CLeHS institute, home to the CSB2D team, is internationally renowned for its research at the intersection of chemistry and health.

- **How to Apply:**

If you're interested, please send the following to **jean-francois.soule@chimieparistech.psl.eu**:

1. A **cover letter** outlining your research interests, motivation, and fit for the project.
2. Your **CV**, including publications and relevant experience.
3. Contact details for at least **two academic references**.

For more information, feel free to contact **Prof. Jean-François Soulé** at the same email.

