

Postdoc position at Universidad Autónoma de Madrid
PESTICIDE RISK ASSESSMENT IDENTIFICATION EXPERT SYSTEM (PRIES-CM)

A **research contract** at postdoctoral level is available in the group of Prof. **Manuel Alcamí** at Universidad Autónoma de Madrid ([MoiPM](#) group), in the framework of a synergy project funded by the Madrid regional government (Y2020/EMT-6290, PRIES-CM).

THE RESEARCH PROJECT

The project aims to **develop and apply computational methods for identifying the risk of the pesticide use**, with the aim to provide a solution for the identification of emerging contaminants in waters and their possible origin. This methodology will allow us to predict the risk that pesticides and their byproducts pose to the environment and to health. The selected candidate will participate in the **development an expert system based on Quantum Chemistry and Molecular Dynamics simulation methods, in combination with QSAR and machine learning techniques** for property prediction, the design of protocols for automated isomer search and incorporation new substances, and management of the database on the product website.

CANDIDATES PROFILE

Candidates of any gender and nationality are welcome to apply, with the eligibility requirements included on the official call document (<https://www.uam.es/uam/investigacion/ofertas-empelo/contrato-pries2-manuelalcami>). Among others, applicants should:

1. Hold a **PhD in Physics, Chemistry, Chemical Physics** or a closely related subject;
2. Prove work experience (pre-/post-doctoral level) in Quantum Chemistry and computational simulations.
3. Demonstrate excellent knowledge of **quantum chemistry programmes** (as Gaussian, Orca, etc) and programming in **Python**;
4. Demonstrate knowledge and previous experience in **machine learning, database** management and **QSAR**;
5. Be fluent in English.

We will value positively any additional skills or experience in the areas of organic chemistry that is also relevant to the offered position.

STARTING DATE AND DURATION

The position should ideally start by mid-September/October 2022 and will be initially funded for 18 months, with possible extensions up to the end of the project (by June 2024) depending on the funding available.

REMUNERATION

Gross salary amounts to 2.333 €/month, besides social security and pension rights.

APPLICATION PROCEDURE

Candidates must send their applications (including CV, PhD diploma and proofs for other merits they wish to be evaluated) **through the UAM jobs portal**: <https://sede.uam.es/sede/piproyectos>. Applicants should follow a 3 step process (identification+encoding details+registering the application), as described in the [call document](#) (section 3). Those applicants who do not have an applicant account, should first create one at the [Unified Applicant Registry](#).

In addition, registration to the [Madrimsad job portal](#) and subscription to the position with reference **45311** (https://mcyt.educa.madrid.org/empleo/inscripcionDemandaProfesional/mostrar_oferta.asp?codigo=45311) is also mandatory.

Deadline to apply: **September 5, 2022.**

Selected candidates might be contacted for an interview, where practical questions will also be asked.