



**Nombre:** Almudena Perona Requena

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**Posición y cargo:** Profesor Ayudante Doctor

**Grupo de Investigación:** Grupo de Investigación Biotransformaciones (BTG)

**Docencia:** Grado en Farmacia

**Área de Conocimiento:** Química Orgánica

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#### **Biography:**

Almudena Perona Requena received a bachelor's degree in chemistry from Universidad de Alcalá de Henares, (UAH). She received her doctorate in "Organic Chemistry" in 2008 from Universidad Nacional de Educación a Distancia (UNED). She worked as a post-doctoral researcher at the CBMSO (CSIC-UAM) for 5 years and as a research fellow in several European universities, Université D'Aix Marseille (France), Warwick University (UK), Keele University (UK) and University of Vienna. Currently, she is assistant professor in the Department of Chemistry in Pharmaceutical Sciences, School of Pharmacy (UCM). She is a professional synthetic organic chemist and an expert in techniques of computational chemistry as virtual screening, molecular dynamics and QM/MM applied to the study of protein structure, macromolecular interactions, and in silico simulation of experimental enzyme modifications.

#### **Research Interest:**

1. Chemoenzymatic synthesis of carbohydrates and carbohydrate derivatives with industrial applications in sustainable conditions.
2. Chemoenzymatic synthesis of multivalent carbohydrates (glycodendrimers, neoglycoproteins,) glycopolymers, glyconanoparticles and glyconanotubes).
3. Study of molecular recognition events unravelling the molecular basis of the recognition between glycans and their receptors using different techniques (docking, molecular modeling and NMR).
4. Biocatalytic reactions in green solvents (solvent derived from biomass, ionic liquids and deep eutectic solvents).
5. Development of new methods to perform sustainable chemical reactions by mechanochemistry.