

Biography Dr. Elvira Romero **elvira.romero@imdea.org**, 28 January 2025

Dr. Elvira Romero holds a position as an **Assistant Senior Researcher** at the Madrid Institute for Advanced Studies in Energy since October 2024 (**IMDEA Energy**, Spain, <https://energia.imdea.org/>). This institution was recognized as a *María de Maeztu* Unit of Excellence in 2020, which is granted by the Ministry of Science and Innovation through the State Research Agency to promote the high-impact research carried out in R&D centres in Spain. **Dr. Elvira Romero** joined the **Biotechnological Processes Unit** to set up a metabolic and enzyme engineering research line for the production of biofuels and biochemicals, through biotransformations of different types of organic renewable resources, using mainly non-conventional yeasts.

After receiving her **Biology BSc degree** from Alcalá University (**UAH**) in 2002 (Spain), she performed her **MSc** (2005) and **PhD** (2010) at Biological Research Center Margarita Salas (**CIB-CSIC**, Spain), which were mainly focused on the characterisation of **ligninolytic enzymes**. Her **postdoctoral** training on **enzyme kinetics and mechanisms** was carried out at **Virginia Tech** (2010-2011) and **Georgia State** (2012-2014) **Universities** (USA), while she developed her skills as an **enzyme engineer** for Biocatalysis during her time at **Groningen University** (The Netherlands, 2015-2019) and more recently at **CIB-CSIC** (Spain, 2023-2024). In addition, she gained **industrial experience** at **AstraZeneca** in enzyme-based late-stage functionalization of drug leads (Sweden, 2019-2022) and at **3P Biopharmaceuticals** in microbial technology transfer and scale-up (2022-2023).

Dr. Elvira Romero has published **28 research articles** (**1st author: 11**) and **1 patent**, while supervising students and building an extensive network in the USA and Europe. Her articles have been published in highly reputed journals such as **Nat. Rev. Methods Primers** (2021), **Chem. Rev.** (2017), **Angew. Chem. Int. Ed.** (2016, 2018, 2021), **ACS Catal.** (2016, 2018), **Proc. Natl. Acad. Sci.** (2017), **Chem. Sci.** (2021) and **ACS Chem. Biol.** (2017, 2017, 2020). Her **H-index** is **14** and she has **1291 citations** (WOS). She has participated in more than **20 conferences** (> 15 international), where she presented **nine oral communications** (**Guest Speaker** 2017, 2020, 2024) and was a member of three **organization committees**.

She has contributed to more than eight **research projects** including a **CSIC mobility action** as a **PI** (2024-2025), a **MCIN/AEI-EU NextGenerationEU/PRTR** coordinated project (2022-2024) as a **task leader**, the **EU** projects ROBOX (635734, 2015-2019) and BIORENEW (NMP2-CT-2006-026456, 2006-2010), the **NWO** (Dutch Research Council) project MEBIO (053.24.105, 2013-2017), and two **NSF** grants (USA National Science Foundation; 2010-2017, 1021384; 2011-2015, 1121695). Furthermore, **Dr. Elvira Romero** has participated in various **science engagement activities** such as “Feria Madrid es Ciencia” and ROBOX film (https://www.youtube.com/watch?v=MfDdZK8NB_A).

Taking advantage of her skills in Biocatalysis, Enzyme Engineering, fermentations, and bio-transformations, her future efforts will be focused on developing **cost-effective green technologies** to obtain value-added industrial products from renewable resources.