

Wednesday, 16<sup>th</sup> March, 9.30am, Online

*Host: Dr. Susana Velasco*

## **Cell-free systems to explore and expand the heterogeneous biocatalysis scope**

*Mercedes Sánchez-Costa  
Heterogeneous Biocatalysis Lab  
CIC biomaGUNE*

Cell-free systems have emerged as an important tool to overcome some of the drawbacks of using whole cells in biocatalytic processes, such as low productivity and selectivity yields. However, the use of soluble enzymes for industrial purposes has also to face limitations in terms of efficiency or enzyme stability that hamper their industrial implementation. To solve this, the Heterogeneous Biocatalysis group is focused on studying new heterogeneous biocatalysts that couple the benefits of soluble enzymes and solid materials that allow to create more efficient multi-functional biocatalysts. This seminar will review the main research run by the group in this field, that among other includes enzymes engineering and spatial distribution studies. Moreover, will be shown the initial results found in the implementation of enzymes production by in vitro transcription and translation methods.