



CARBAZYMES

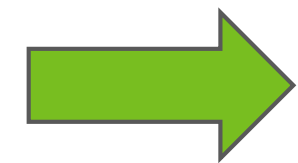


SUSTAINABLE INDUSTRIAL PROCESSES BASED ON A C-C BOND-FORMING ENZYME PLATFORM

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Biotechnology

- Discovery of new biocatalysts and biocatalytic reactions enables industrial processes development with economic, social and environmental advantages
- Key enabling technology according to Horizon 2020
- Implementing biocatalytic processes remains a promising but largely unexplored field



Horizon 2020

- The biggest EU Research and Innovation programme with nearly €80 billion of funding available over 7 years (2014 to 2020)
- Promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market
- Main aims are economic growth and opening new job positions



Carbazymes

- Aims to overcome challenges through an interdisciplinary approach
- Features a broad carboligation platform of 4 types of unique C-C bond-forming enzymes
- Common goal to implement new green technologies for C-C bond formation at the industrial level
- The project objective is to synthesize active pharmaceutical ingredients (APIs) and bulk chemicals according to the market needs



Our Role in the Project

- Work package leaders of bioprocess development
- Involved in work packages related to reaction systems optimization, bioprocess development and scale-up



The Zagreb Research Group

- The research group at the Department of Reaction Engineering and Catalysis:



Back:
Assoc. Prof. Ana Vrsalović Presečki
Martina Sudar, Postdoctoral researcher
Anera Švarc, PhD student



PhD students:
Morana Česnik (left) and Anera Švarc (right)



Front:
Prof. Đurđa Vasić-Rački
Morana Česnik, PhD student
Assoc. Prof. Zvezdana Findrik Blažević (PI)

Project Members



- 14 partners from 5 different EU countries: Technical University Darmstadt (DE), National Research Center, Institute of the Advanced Chemistry of Catalonia (ES), Universidad Autonoma de Madrid (ES), Technical University Braunschweig (DE), University of Groningen (NL), University of Zagreb (HR), Biochemize SL (ES), Bio-Product B.V. (NL), Sustainable Momentum, S. L. (ES), Institut Univ. de Ciencia i Tecnologia, S.A. (ES), Enzymicals AG (DE), University of Freiburg (DE), Prozomix Ltd (UK) and Evonik Industries (DE)



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