



UNIVERSITÀ
DEGLI STUDI
DI PADOVA

HORIZON EUROPE
PROJECTS FUNDED AT THE UNIVERSITY OF PADOVA

PHOTO-STEREO - Organocatalytic enantioselective dearomative photocycloadditions for the synthesis of polycyclic heterocycles

The PHOTO-STEREO action provides a general synthetic platform for the organocatalytic enantioselective dearomatization of heteroaromatic compounds by means of [2+2] photocycloadditions to obtain complex saturated polycyclic compounds in one step under mild conditions. The proposed strategy relies on the direct excitation, by means of visible light, of organocatalytic heteroaromatic intermediates to access their excited state reactivity. Furthermore, the implementation of this methodology into a flow system will enable the collaboration of the host institution with an industrial partner, offering to the fellow a valuable experience of the dynamics in industrial R&D. PHOTO-STEREO will merge the expertise of the group of Prof. Dell'Amico in photoredox catalysis with the expertise of the fellow in asymmetric organocatalysis. Overall, this project promotes the efficient use of sustainable resources, such as light and inexpensive heterocyclic feedstocks, while bringing innovation into the fields of synthetic organic chemistry and medicinal chemistry. This project will ultimately contribute to the EU's scientific excellence, and at long term, to scientific innovation with a positive impact in the society and EU's economy. Importantly, all the competences acquired during the realization of this fellowship, together with the creation of new connections with industry and academy, will allow the fellow to reach a position of complete professional maturity, while providing her with fruitful opportunities for gaining a permanent position as senior scientist in both academic, or industrial settings.

UNIPD Supervisor: Luca Dell'Amico

MSCA Fellow: Vasco Corti

Department: Department of Chemical Sciences

Coordinator: Università degli Studi di Padova (Italy)

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