



MINISTERIO
DE CIENCIA, INNOVACIÓN Y
UNIVERSIDADES



CONSEJO SUPERIOR
DE INVESTIGACIONES
CIENTÍFICAS

INSTITUTO DE CATÁLISIS Y
PETROLEOQUÍMICA

Ph.D position (FPI fellowship program) in enzyme engineering by directed evolution

The directed enzyme evolution group leaded by Prof. Miguel Alcalde (www.miguelalcaldelab.eu) at the Institute of Catalysis (ICP-Madrid) of the National Research Council (CSIC), offers a Ph.D. contract (FPI, 4 years), founded by the Spanish Ministry of Science and Innovation to work in the project "DIRECTED EVOLUTION OF FUNGAL PEROXYGENASES: CREATING A NEW WAVE FOR SELECTIVE C-H OXYFUNCTIONALIZATION CHEMISTRY (OXYWAVE)" Ref: PID2019-106166RB-I00).

OXYWAVE is a highly multidisciplinary project covering from the most modern techniques in biocatalysis, molecular and synthetic biology (paying special attention to directed evolution and computational approaches) to the fundamentals of enzyme biochemistry. In terms of methodologies, the FPI-PhD student within OXYWAVE would learn a broad repertory of advanced methods in protein engineering and evolution including the direct use of sophisticated robotic high-throughput screening platforms. In this way, the student has the unique opportunity to handle up-to-the-minute techniques that very few international laboratories can offer. More significantly, the PhD student can also learn key fundamentals of enzyme engineering from the generation of genetic diversity to protein biochemistry. Thereby, a Doctoral Thesis in the frame of OXYWAVE would comprise the most relevant aspects for enzyme engineering towards specific biotechnology fates while including concepts and methods on biochemistry, molecular biology, genetics and microbiology.

The international ambiance of our laboratory supplied by European projects and networks as well as the tight collaborations established with pioneering laboratories in the field of protein evolution fully satisfy our PhD students who have the opportunity to make short-term stays in groups of reference in the ground of research or attending international forums and conferences including several European summer-schools on protein engineering, in which Dr. Alcalde is actively participating.

The candidate must be highly self-motivated and dedicated, be able to work independently but also to synergetically interact with other lab members and have a solid experience in the fields of chemistry biochemistry and molecular biology, holding the Master's degree in a related discipline.

Interested persons should apply exclusively per e-mail as soon as possible and send a detailed CV, the certified academic record, as well as a covering letter including motivation to Miguel Alcalde (malcalde@icp.csic.es) before 20 October 2020.

CORREO ELECTRÓNICO:

malcalde@icp.csic.es

CANTOBLANCO.
28049 MADRID
TELÉFONO: 91 5854806
FAX: 91 585 4760