



Press Release

CRELUX receives 800 000 euros funding within the EU HORIZON 2020 programme to identify compounds from marine sources for age-related disease therapy

TASCMAR: Tools And Strategies to access original bioactive compounds through the Cultivation of MARine invertebrates and associated symbionts

Planegg-Martinsried, Germany – CRELUX GmbH will participate in a research project funded by the European Union to access marine bioactive compounds and subsequently identify and validate novel compounds for the treatment of age-related diseases. This project brings together researchers from 8 different countries, from France, Greece, Israel, Thailand, Ile de la Réunion, Germany, Italy, Spain, and Sweden. In the first project phase, marine invertebrates and their associated symbionts located in the under-investigated mesophotic zone (between 30 and 100 meters depth) will be cultivated and extracts prepared. CRELUX is involved in the discovery of novel metabolites with anti-ageing activity. The small molecule drug discovery specialist will use its INTRACT platform to analyze effects of extracts and pure substances on various molecular targets and will assess the use of extracts or compounds in pharmaceutical applications targeting age related diseases. Further compound validation will also include cell based and pharmacology assays.

CRELUX's biophysical assay and screening platform INTRACT is comprised of innovative technologies including nanoDSF, microscale thermophoresis, NMR, AlphaScreen SAW and mass spectrometry based technologies as well as enzymatic assays, FP, and TR-FRET.

Dr. Michael Schaeffer, Executive Director Strategy and Business of CRELUX GmbH, comments: "Evolution and nature are a tremendous source for therapeutically active compounds. We are delighted to enter into this EU funded project with such a highly ambitious and experienced consortium. The CRELUX platform covers all necessary technologies for *hit* finding and pharmaceutical validation and our expertise in compound screening and early stage drug discovery will make a valuable contribution to evaluating novel marine extracts and compounds."

The TASCMAR project leader Dr. Jamal Ouazzani (CNRS) adds: "TASCMAR is a continuation of the EU efforts in isolating bioactive new compounds from marine invertebrates, TASCMAR aims to enhance the competitiveness and sustainability of European industry sectors such as the pharmaceutical, nutraceutical, cosmetic, industrial biotechnology and fine chemical sectors."

Ends

About Horizon 2020

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020) – not to mention the private investment that this will attract. It promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market.

About TASCMAR

TASCMAR (Tools And Strategies to access original bioactive compounds from Cultivation of MARine invertebrates and associated symbionts) is an H2020 EU-funded project, joining the forces of five academic institutions, seven commercial partners and one NGO, and sets out to find new, efficient and sustainable ways of discovering marine-derived molecules and applying them in the field of pharmaceuticals, cosmeceuticals and nutraceuticals with a particular focus on the theme of anti-ageing and age-related diseases and disorders. The project will also engage innovative cultivation technologies for marine invertebrates and associated symbionts

TASCMAR is coordinated by the Institut de Chimie des Substances Naturelles within the Centre National de la Recherche Scientifique, France, and the project team includes the University of Athens (Greece), Tel Aviv University (Israel), Chulalongkorn University (Thailand) and Université de la Réunion (Ile de la Réunion). The team includes the commercial partners CRELUX GmbH (Germany), BiCT srl (Italy), Pierre Guerin Technologies (France), iMare Natural S.L. (Spain), ASTAREAL AB (Sweden), Apivita (Greece) and T6 Ecosystems srl (Italy) as well as the Israeli NGO EcoOcean.

The project will focus on the potential of marine invertebrates and their associated symbionts located in the under-investigated mesophotic zone (between 30 and 100 metres depth) and aims to end with the industrial application of bioactive compounds and the development of innovative cultivation equipment. Seven expeditions dedicated to mesophotic coral ecosystems and temperate mesophotic ecosystems will be carried out, with particular emphasis placed on respecting biodiversity, resource preservation and ethical principles as laid out in local, regional, national, European and international rules and policies.

Innovative approaches for the cultivation and extraction of marine organisms from lab to pilot-scale, will be used and marine dedicated cultivation and extraction equipment will be built and validated. These unique improvements will ensure the sustainable supply of biomass and promote the production of high added value bioactive marine compounds. An integrated, holistic technological metabolomic approach will be applied, in conjunction with bioactivity profiling, as filtering and bio-prioritisation tools. State-of-the-art analytical instrumentation and in-house databases will be employed for the dereplication and characterization of valuable compounds. A panel of libraries (marine organisms, extracts, pure metabolites and biocatalysts) will be constructed and exploited throughout the project. A focused panel of in-vitro, cell-based, in-ovo and in-vivo bioassays for discovering metabolites with anti-ageing and/or angiogenesis modulating activity will frame the entire work-flow and will reveal the lead compounds. In addition, the catalytic potential of mesophotic symbionts and deriving enzymes candidates will be evaluated for the bioremediation of persistent pollutants.

In working to achieve these objectives, TASCMAR aims to promote fruitful and long-term collaboration between research institutions and industry in the field of novel and bioactive marine derived molecules and industrial biomaterials and will contribute to the

implementation of the European Commission Blue Growth Strategy for unlocking the potential of seas and oceans to support sustainable growth.

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About CRELUX GmbH

CRELUX (www.crelux.com) is a global leader for structure based drug discovery solutions that operates out of its headquarters in Munich-Martinsried. CRELUX is privately owned, cash positive and committed to long-term development and growth based on its broad portfolio of drug discovery technologies that are seamlessly integrated to fully cover the initial phases of small molecule drug discovery.

Our work is highly individualized for our clients – we have been delivering customized solutions in drug discovery, X-ray crystallography, biophysical screening, hit finding, validation and optimization to global pharma and biotech for more than a decade. Our platform operates on a seamlessly integrated suite of technologies including virtual high throughput screening, fragment based screening, molecular modelling, X-ray crystallography, in vitro and cell based screening medicinal chemistry and pharmacology. Our mission is to enable our clients to perform their work better, faster, more efficiently and more successfully by providing a flexible, expert work force.

Legal Note

This document may contain projections or estimates relating to plans and objectives relating to our future operations, products, or services; future financial results; or assumptions underlying or relating to any such statements; each of which constitutes a forward-looking statement subject to risks and uncertainties, many of which are beyond our control. Actual results could differ materially, depending on a number of factors.

For more information on CRELUX please visit www.crelux.com or contact:

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