MAURITIUS RESEARCH AND INNOVATION COUNCIL (MRIC)

RESEARCH AND INNOVATION BRIDGES (RIB)

Project Summary

Title of Project:
Consortium for Marine Innovative Therapeutics (COMIT)

Mauritian Company: Axonova Ltd

Main Collaborating Institutions:
University of Western Cape/Institute for Microbial Biotechnology and Metagenomics (UWC/IMBM)
University of Aberdeen/Marine Biodiscovery Centre (UoA/MBC)

Co-Project Leaders:
Dr Fabien Boullé
Dr Shameem Fawdar

Collaborators:
Dr Anita Burger and Prof Marla Trindade (UWC/IMBM)
Prof Marcel Jaspars and Dr Rainer Ebel (UoA/MBC)

Technical Abstract

Axonova Ltd is pioneering the development of novel therapeutics for the treatment of Neurodegenerative Disorders (ND) in Mauritius. The aim of COMIT is to develop a scalable high throughput marine drug discovery platform to generate commercially viable health products for ND applications. COMIT will explore marine resources from the different oceans for the generation of high value-added natural compounds on an innovative platform combining state-of-the-art technology and multi-parameter data processing. COMIT will undertake a multi-lateral partnership to bridge experts in the fields of marine biology (UoW-IMBM and UoA-MBC) and commercial drug discovery (Axonova Ltd). IMBM have already produced extracts from marine bacteria respectively, and undertaken an initial screen to identify extracts with neuroprotective potential. MBC will provide a 80 compound pure natural library and microbial strains from deep and cold marine environments. Axonova Ltd has prior expertise in implementing innovative approaches to screening compounds for ND treatment and works closely with commercial partners to expedite lead candidates to market phase. Pre-selected extracts from the international collaborators will be further developed under the COMIT project to produce commercially viable products in the form of nutraceuticals. Together, COMIT will fast-track the development and commercialisation of novel marine therapeutic candidates as preventive treatment to ND. Any intellectual property resulting from this project will be shared between all parties involved as per stipulations in forthcoming Memorandum Of Understanding.

Key Words: Marine therapeutics, neurodegenerative diseases, novel drug discovery