

Helmholtz-Zentrum für Ozeanforschung Kiel

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Bioactive compounds from Arctic waters

Marbio is an analytical platform at the Arctic University of Norway for screening, isolation and identification of bioactive natural products. We explore Arctic and sub-Arctic marine organisms, searching for compounds with activities against bacteria, cancer and diabetes as well as compounds with immunomodulatory and antioxidative effects. Our screening campaign has been based on a classic bioassay-guided fractionation approach. We are screening a unique collection of cold-water invertebrates and microorganisms collected by Marbank, a national marine biobank in Tromsø, Norway. Through the MabCent-SFI program, we identified several novel bioactive structures in the collection of marine invertebrates. The microorganisms are collected from diverse marine sources, including sediments, sea water, invertebrates and vertebrates, and they are cultivated in different growth media to build up an extract library for screening. The microorganism extract library is currently being exchanged between PharmaSea partners and screened for anti-infective-, neuro- and antiinflammatory activities. To be able to exploit the great potential of marine natural products, particularly at a commercial scale, certain aspects must be addressed to secure progress: access (physical and legal), supply, compound isolation, and structure elucidation. The presentation will give an overview of the workflow and some of our results from the screening program.

Datum: Wednesday, 15th June 2016, 1:15 pm

Ort: GEOMAR Westshore, Düsternbrooker Weg 20, Lecture Hall

Host: Prof. Dr. Deniz Tasdemir