marine drugs

MDPI

Conference Report

XVI International Symposium on Marine Natural Products|XI European Conference on Marine Natural Products

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Preface

The International Symposium on Marine Natural Products (MaNaPro) happened for the first time in 1975 in the city of Aberdeen, Scotland, organized by Professor Ronald H. Thomson. The European Conference on Marine Natural Products (ECMNP) occurred for the first time in 1997 in Athens, Greece, organized by Professor Vassilios Roussis. The MaNaPro and ECMNP conferences have triennial and biennial frequencies, respectively. Since its first edition, the ECMNP has been set in the alternating years of the Gordon Conferences on Marine Natural Products. In 2019, it was the second time, in 44 years, that a joint organization of the MaNaPro and ECMNP meetings occurred. The first joint meeting of the MaNaPro and the ECMNP occurred in 2013 in Galicia, La Toja, Spain, organized by Dr. Carmen Cuevas from PharmaMar. Over the time, there have been 16 editions of the MaNaPro and 11 editions of the ECMNP held in several countries.

The list of 16 editions of the MaNaPro is shown as following:

I International Symposium on Marine Natural Products, 8–11 September 1975, Aberdeen, Scotland, UK, organized by Ronald H. Thomson;

II International Symposium on Marine Natural Products, 12–15 September 1978, Sorrento, Italy, organized by Mario Piattelli;

III International Symposium on Marine Natural Products, 16–19 September 1980, Brussels, Belgium, organized by Bernard Tursch and Jean-Claude Braekman;

IV International Symposium on Marine Natural Products, 26–30 July 1982, Tenerife, Spain, organized by Antonio G. Gonzáles and Julio D. Martín;

V International Symposium on Marine Natural Products, 2–6 September 1985, Paris, France, organized by Yoel Kashman and R obert H. Dodd;

VI International Symposium on Marine Natural Products, 3–7 July 1989, Dakar, Senegal, organized by Jean-Michel Kornprobst;

VII International Symposium on Marine Natural Products, 5–10 July 1992, Capri, Italy, organized by Luigi Minale;

VIII International Symposium on Marine Natural Products, 10–15 September 1995, Tenerife, Spain, organized by Julio D. Martin;

methodology considering a central composite rotatable design was carried out to optimize the extraction conditions. The maximum antioxidant activity (DPPH IC_{50} 4.18; FRAP 547.03 mg AAE/g) and TPC, 80.83 mg GAE/g, was obtained with the following optimum extraction conditions: 26% of seaweed, 100% water and 300 s of homogenization. Additionally, optimized nonalcoholic extract at 1000 to 250 μg/mL in sodium phosphate/potassium phosphate buffer was screened for it α-amylase and α-glucosidase inhibitory activity through a spectrophotometric method, using colorimetric DNS and PNPG reagents, respectively and acarbose as positive. Maximal inhibition was achieved with seaweed extract with 250 μg/mL concentration, by 28.4 ± 0.04% (acarbose 76.0 ± 0.03%) for α-amylase and by 98.5 ± 0.002% (acarbose 55.0 ± 0.04%) for α-glucosidase. We concluded that *Fucus spiralis* extract inhibits α-amylase and α-glucosidase, two therapeutic targets in T2DM.

Anti-Aging Activity of *Lobophora variegata* Ethanolic and Methanolic Extracts and Their Fractions

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Seaweed have promising applications within food, cosmetic and health industries, which led to an increased interest in studying these organisms [1]. In several coastal areas, thousands of tons of macroalgae are cast on beaches and shorelines and it would be very interesting if this biomass could be managed, allowing the extraction of added-value compounds. In this context, polar extracts (methanol and ethanol) of a macroalgal beach cast sample mainly composed of *Lobophora variegata* were prepared and the anti-aging and antioxidant activities were evaluated. The preliminary results showed interesting results, and thus these crude extracts were then fractionated sequentially by their solubility in dichloromethane, acetone and ethyl acetate, resulting in 4 semi-pure fractions each, which were also tested. Fractions A1.1.1 and A1.2.3 were very good tyrosinase inhibitors (IC_{50} = 37.87 and 24.01 μg/mL, respectively) and fractions A1.1.2 and A1.2.2 presented very good inhibition of elastase (IC_{50} = 44.76 and 20.86 μg/mL, respectively). However, none of the fractions was active against collagenase. These results show that further purifications of these fractions can lead to the isolation of bioactive added-value compounds.

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