

EXTRACTION OF ANTIOXIDANTS FROM MARINE/PLANT BIOMASS

UQAR – 008
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Partner institution :

UQAR

BRIEF DESCRIPTION:

Reactive oxygen species (ROS) are toxic radicals generated by oxidation during normal cell metabolism. Uncontrolled production of ROS is associated with several diseases ranging from cataracts, heart & inflammatory diseases, male infertility, ageing to neuro-degenerative diseases e.g Parkinson, Alzheimer and multiple sclerosis. Antioxidants, such as those found in food and dietary supplements help maintain the internal oxidation process through in situ regeneration of antioxidant molecules or neutralizing the oxidative compounds.

Therefore there is a need for products having high antioxidant properties.

ABSTRACT:

N/A

INTERNAL:

UQAR-008: Université du Québec à Rimouski

TECHNOLOGY:

The technology entails the extraction of marine/plant oils rich in antioxidants that can be used in functional foods/drinks as well as in the nutraceutical and cosmetic fields.

Depending on the source, some of these antioxidants may also be used as colorants with added value.

The extraction procedure uses non-toxic solvents and the resulting extracts have ORAC (Oxygen Radical Absorption Capacity) values higher than those from pure antioxidants sold presently on the market.

COMPETITIVE ADVANTAGES:

- Simple, cheap extraction procedure using non-toxic solvents, hence easier to obtain approbation from regulatory bodies
- Can be stored for long periods of time without altering the anti-oxidant properties

APPLICATIONS:

- Dietary supplements/colorants
- Cosmeceutics
- Therapeutics – to treat/prevent diseases associated with oxidative stress

TECHNOLOGY DEVELOPMENT STAGE:

Proof of principle has been completed for several biomarine species as well as small fruit. A pre-commercial scale-up has also been being carried out successfully.

BUSINESS OPPORTUNITY:

Licensing/co-development opportunity for any field – maybe licensed on an exclusive basis related to a specific field of use.

PATENT STATUS

Patent utility for the USA and Canada.

For Information please contact:

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