

Profile View

Details

Title: Circular aquatic food production through conversion of waste turnover to valuable bio-active materials by green chemistry

POD Reference: TOSG20210629001

Summary: A Singapore SME has developed a circular solvent-free mechanochemical bio-refinery technology to achieve in a one-step production process from aquatic waste to valuable biomaterials and biochemicals, which is efficient, cost saving and environmentally friendly as compared to conventional methods.

The SME seeks licensing or technical cooperation partnerships with venture partners, MNEs or SMEs.

Description:

The company is an innovative biotechnology company with proprietary technology in the field of bio-active polymers. Their primary focus is in the conversion of waste to valuable biomaterials using green chemistry methodologies.

Circular solvent-free mechanochemical bio-refinery technology was developed to produce in one-step from aquatic waste to valuable biomaterials and biochemicals. The complete manufacturing flow-process is power efficient and is designed to use renewable energy sources, producing zero-waste.

The wide-range of products and bio-refinery from this innovative technology, developed by the Singapore biotechnology SME, can be used in broad-spectrum of industries such as pharmaceutical, nutraceutical, food, animal health, cosmetics, paint, high-performance lithium sulphur battery, anti-bacterial packaging, micro-electronics, textile, water-treatment, aquaculture and agriculture.

Depending on the requirements of the partners, business models of collaboration can be tailor-made for mutual win-win. Grant support may be available in certain countries for joint development to introduce new commercial products into the global markets.

The SME is keen to partner SMEs and MNEs in the following types of partnerships:

i) Licensing agreement, where the partner can further develop the technology for commercialisation.

ii) Research and Technical cooperation agreements, where the SME can provide technical support for the partner in leveraging the technology to address its needs.

Advantages and Innovations:

The main advantages of the company's novel technology include:

- producing diversified by-products from waste
- cost-effective, solvent-free and ecological-friendly
- scalable modular production that brings about products with high efficacy and quality.
- the ability to milk aquatic waste as a new trend in the aquaculture industry.

Stage of Development:

Already on the market

Comments Regarding Stage of Development:	The technology is commercially available and already incorporated into branded products in the market.
IPR status::	Patents granted Secret Know-how
Comments Regarding IPR Status:	The company holds patents in France, Germany and UK, and has intentions to file for protection in other countries in the near future.
Profile Origin:	Other

Keywords

Technology	02007020 Biobased materials
Keywords:	06006004 Biopolymers 07003001 Aquaculture 10003007 Waste to Energy /Resource
Market Keywords:	08001023 Other chemicals and materials (not elsewhere classified) 08004002 Chemical and solid material recycling 09005 Agriculture, Forestry, Fishing, Animal Husbandry & Related Products

Partner Sought

Type and Role of Partner Sought:	The SME seeks venture partners, aqua-farmers, feed companies and investors to cooperate either to further develop new products from aquatic waste and/or adopting the bio-waste recycle capability into their farms or feed-mills. For existing products or new jointly developed products, test-bedding is expected to be provided by the SME's partners. The ideal partner is a commercial entity that can license and bring the technology and/or finished products into the market. Further technical cooperation can be explored if there are market opportunities to support the venture.
Type and Size of Partner Sought:	>500 >500 MNE 251-500 SME 51-250
Type of Partnership Considered:	Commercial agreement with technical assistance License agreement Research cooperation agreement Technical cooperation agreement

Client

Type and Size of Client: Industry SME 11-49
Year Established: 1995
Already Engaged in Trans-National Cooperation: Yes
Languages Spoken: English
Client Country: Singapore

Dissemination

Relevant Sector: Agrofood
Groups: Bio Chem Tech
Materials
Nano- and Microtechnologies

