



TASMANIA

LifeScience
LifeStyle

A world-class research community... dynamic growing biotech industry...
a pristine natural environment...

Make a lifestyle change – do your biotech business in Tasmania.

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TASMANIA

Natural Product
Extract Specialists

BIOACTIVE COMPOUNDS
Tasmania AUSTRALIA

Extraction Specialists

Home to the world's largest exporter of codeine and thebaine, the world's only specialist fucoidan extraction facility, and the world's primary pyrethrum manufacturers, Tasmania is a true global player.

Tasmania's competitive industry advantage stems from its southerly position, providing long summer days, a beneficial climate and diverse marine and agricultural resources. The waters on Tasmania's east coast are known to be some of the cleanest on the planet, and the fertile soils of the state's north-west the most mineral rich in the Southern Hemisphere.

Tasmania's natural benefits in biosecurity and biopurity have already attracted several Big Pharma companies to the state, setting up operations for the primary production and development of key compounds.

Companies such as Deep Sea Oils, Essential Oils of Tasmania and Hop Products Australia have all profited from the economic and environmental advantages of establishing facilities in Tasmania. Three other Tasmanian extraction businesses, Tasmanian Alkaloids, Botanical Resources Australia and Marinova, are currently leading the world in their areas of expertise.

Tasmanian Alkaloids Pty Ltd

Located in Tasmania's north, Tasmanian Alkaloids employs over 200 specialist staff and is recognised as the largest manufacturer of active pharmaceutical ingredients in Australia and is the largest exporter of codeine and thebaine in the world.

Tasmanian Alkaloids' extraction facility removes the alkaloids from poppy plant material using a warm solvent percolation system. Two final types of concentrate of poppy straw are produced using this method; one has as its main component, morphine and the other thebaine.

The company's strategy for the development of new products and their desire to remain an innovative market force is realised by working closely with their customers and partners. Their experience in alkaloid processing, combined with their knowledge of controlled substances, makes them an ideal partner for any company wishing to develop a controlled substance formulation.

Botanical Resources Australia Pty Ltd

Forty per cent of the world's pyrethrum is grown and harvested by Botanical Resources Australia (BRA) in the stunningly scenic north-west of Tasmania.

Their product is extracted and refined in the company's state-of-the-art extraction plant and formulated for use in pyrethrum-based insecticides world-wide.

BRA is applying the specialist skills and resources it has developed in working with pyrethrum to carry out cutting-edge research on other medicinal crops. The company is currently developing an Echinacea plant with a high concentration of the unique active constituent and has begun growing Artemisia, recommended by the World Health Organisation as a treatment for malaria.

Marinova Pty Ltd

In 2006, Marinova opened the world's only specialist fucoidan extraction and fractionation facility. The GMP and ISO compliant plant is able to produce pure nature-equivalent fucoidans, and manufacture characterised derivatives for nutraceutical, cosmetic and pharmaceutical development.

Fucoidans, natural sulphated polysaccharides found only in marine algae and echinoderms, are highly polymeric, and Marinova's facility is able to provide products ranging from whole HMW molecules to specific chemically defined fractions. The company utilises a proprietary extraction procedure that involves no use of solvents or heat, and ensures the final extracted polysaccharides are unaltered and contain no measurable impurities.

Marinova has both an active R&D program, focused on developing both nutraceutical and pharmaceutical fucoidan products, and a successful service business, providing fucoidans and macroalgal blends to companies ranging from European cosmetics firms to US-based nutritional multinationals.

The company has a full portfolio of products, including a wide range of species-specific fucoidans and raw macroalgae, as well as a fucoidan fraction library facility for companies looking to conduct drug discovery assays.

Tasmania's Research Institutes

Tasmania is home to two leading research institutes key to this sub-sector of the biotech industry: CSIRO - Marine & Atmospheric Research and the University of Tasmania. These research institutes are home to world-class scientists eager to engage with industry to identify new bio-active compounds.

Outstanding research leading to the development of plant sources of Omega-3 oils – being conducted within the CSIRO Food Futures Flagship by the CSIRO Marine & Atmospheric Research division in partnership with other CSIRO divisions – demonstrates some of the ground-breaking science currently underway in the state.

