

NORWEGIAN SALMON PEPTONE:

SUSTAINABLE RESOURCES FOR HIGH VALUE PRODUCTS

Exploring the commercial viability of a peptone isolated from Norwegian salmon co-products



THE NEED

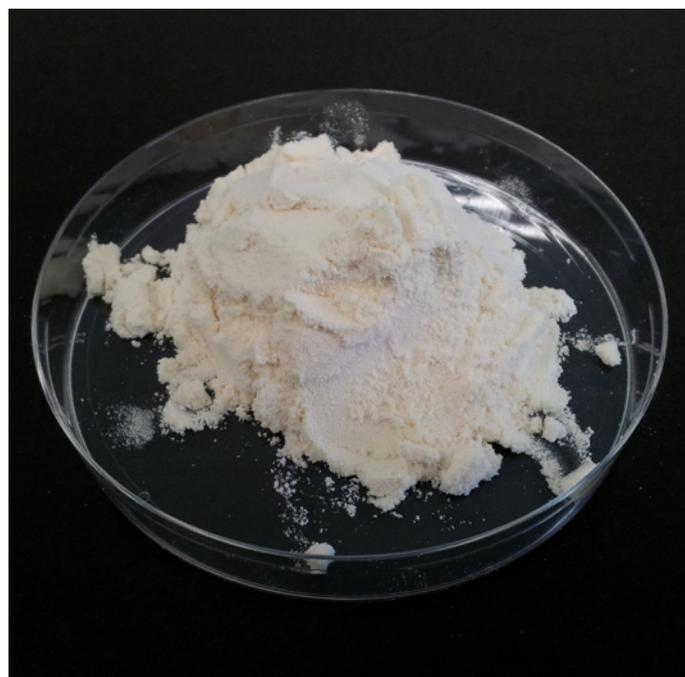
The high cost of fossil fuels coupled with concerns over climate change has led to increasing emphasis on the search for environmentally sustainable alternatives to petroleum-based products. Minimising wastage from food production systems is also a priority, especially if valuable co-products (not intended for human consumption) can be obtained. In 2012 the Norwegian fisheries industry produced 914 million tonnes of co-products.

THE PARTNERSHIP

The Centre for Process Innovation, the UK's technology and innovation centre, and Biomega AS, a Norwegian marine biotech company, were introduced by Innovate UK in 2010 at the European Forum for Industrial Biotechnology. They submitted a successful project proposal to an Innovate UK and Innovation Norway funded competition for industrial biotechnology in 2011.

THE RESULTS

The peptone proved to be a successful media by supporting the growth of industry relevant microbes such as *E. coli* and *P. pastoris*. Enzyme yields were much higher when compared with industry standard peptones. CPI successfully transferred fermentation from lab to 750l scale, demonstrating the peptone's viability in supporting large scale production of commercially important enzymes such as proteases.



“ This was a feasibility study which generated exceptional results. The project offered us a new partnership with Biomega AS, new knowledge of marine resources and associated technology and a deeper knowledge of fermentation ingredients ”

Dr Campbell Tang
Principal Bioscientist
CPI, UK



UK-NORWAY: DRIVING THE BIO-BASED ECONOMY



PROJECT OUTCOMES

This collaboration resulted in a new product, a salmon peptone.

- **Estimated market potential: £20m**
- **Target markets: Worldwide**
- **Anticipated product launch: 2-3 years**

The project also helped the partners improve their processes for combining specific enzymes and separation technologies which will impact on future products.

CPI and Biomega AS are now planning further collaborative research.

“ The introduction to the the Centre for Process Innovation in the UK - an institute with highly skilled personnel and with relations to industry – was of high value to a company like Biomega ”

Kjartan Sandnes
R&D manager (until 01.01.2014)
Marine Bioproducts (Now Biomega)

BIOMEGA
SUSTAINABLE MARINE BIOPRODUCTS

UK-NORWAY COLLABORATIONS

The business funding agencies in the UK & Norway signed the Memorandum of Understanding in 2011 to enhance collaboration between the two nations in the area of industrial biotechnology & biorefining. The KTN & IBNN are the delivery team, ensuring opportunities for networking are in place and strategic. This project resulted from such activities.

If you are interested in finding a UK or Norwegian partner, or want to know more about the MoU or opportunities to network, visit the Norway-UK Group on [_connect](#) or email:

 biosciences@ktn-uk.org
 ernst@indbiotech.no

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