

DEVELOPING A SUSTAINABLE PROCESS TOWARDS TACKLING COMMON MEDICAL AILMENTS

Development of a scalable, sustainable manufacturing process for a novel, high value polypeptide

THE NEED

Leukolectin is a novel patented molecule exhibiting (in pre-clinical tests) remarkable benefits for the treatment of a range of skin, autoimmune and gastrointestinal disorders. This molecule is absent in many disease states, suggesting that its presence is critical for preventing the disorders.

The development of a range of topical and oral medicaments containing leukolectin could have the potential to dramatically reduce the severity of symptoms experienced by millions of sufferers around the world.

THE PARTNERSHIP

Seagarden, a Norwegian company who manufacture seafood ingredients and marine bioactives, and Biocatalysts Ltd, a UK-based enzyme developer and manufacturer, were introduced by the Industrial Biotechnology Network Norway and Innovation Norway (IN).

They submitted a successful project proposal to an Innovation UK and IN funded competition for industrial biotechnology in 2012.



THE RESULTS

This feasibility study allowed Seagarden to explore the potential for scaling up production of leukolectin in partnership with Biocatalysts Ltd, who have vast experience of large-scale manufacturing of proteins.

The benefit of producing leukolectin by a more environmentally-friendly fermentation process ensures supply is sustainable and reduces production costs of the medicaments.



“ This UK-Norway collaboration gave us access to new potential customers and markets in Norway. ”

Jon Wood,
Business Development Manager,
Biocatalysts Ltd.

BIOCATALYSTS
exceeding enzyme expectations

UK-NORWAY: DRIVING THE BIO-BASED ECONOMY



PROJECT OUTCOMES

This collaboration resulted in:

- Improved process for recombinant polypeptide production which will lead to the development of new products and services;
- Improved quality of existing products;
- The creation of a new job and the safeguarding of an existing job at Biocatalysts Ltd.

Future plans:

- International licencing of technology;
- Improved process to be implemented in about 2017.

“ This collaboration will enable a cost effective use of new raw material sources ”

Bjarte Langhelle,
Commercial Director,
Seagarden AS


seagarden
arctic seafood ingredients

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

UK-NORWAY: DRIVING THE BIO-BASED ECONOMY