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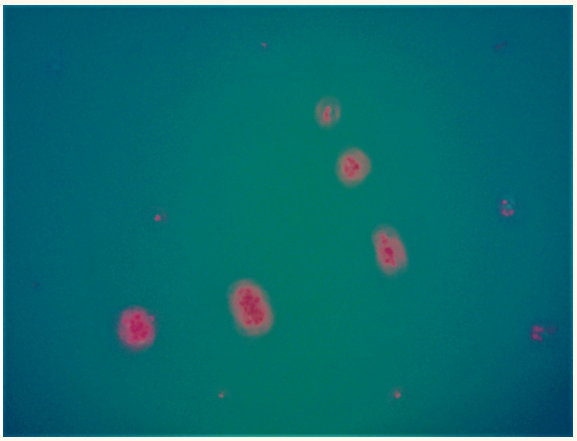
MICROALGAE FOR COSMECEUTICALS &NUTRACEUTICALS

OFFICIAL NEWSLETTER OF ALGAECEUTICALS PROJECT



SNEAK PEEK OF WHAT'S INSIDE:

The Importance of Growing Microalgae

From delicious dish creations with algae to the blue-green wonders of nature, microalgae offer a rich source of novel high-value bioactive compounds including pigments, fatty acids, and anti-oxidants for nutraceutical, cosmeceutical, and pharmaceutical use.

The AlgaeCeuticals consortium is a collaboration between academic/ research centres and industrial R&D partners across Europe. In AlgaeCeuticals, we aim to screen and characterise algal biodiversity, to develop and optimise algae culture systems for biomass production and downstream processing and to apply novel molecular and biochemical tools and resources in order to develop novel products, such as natural UV sunscreens, algae-derived proteases and proteins for cosmetics and foods.

How to grow useful

First there was the algae biomass! The Ecoduna's 'Hanging Gardens' are a unique system to produce algae of high quality, continuously and sustainably based on the model of nature. It is a worldwide patented technology, that combines the principle of surface enlargement from trees as well as the multiplication of the photoactive layers of a pond through vertical glass modules. The Photo-Bioreactor System ("PBR") is a resource efficient and continuous production system of microalgae in a controlled environment.

Gaining experience

In the dusk of July Ecoduna hosted our mid-term meeting in Vienna- what a beautiful city to visit! The AlgaeCeuticals meeting took place in Ecodunas facilities in Bruck an der Leitha ("Bridge on the Leitha") where we had the opportunity to walk around the 'Hanging Gardens'.

We had the chance to meet once again with the AlgaeCeutical team and discuss about our research progress, tasted chocolate with algae form Ecoduna, tried out facial creams with algae from FreshLine and checked out recipes with algae from CTC! We heard about algae producing interesting compounds of high added value when grown in extreme environments and species identification using molecular approaches from the INAB team. Two of our members, Eve our postdoc researcher and Irini our PhD student, are currently visiting Ecoduna for their 2-months secondment to exchange knowledge and know-how.

We also saw evidence of protease activity and antioxidant capacity of specific algae strains from the AUA team. The team from FEM described the assays developed for extraction and analytical methods for different metabolic compounds and their metagenomic approach in discovering the microbial community in the algae cultures. We also heard about bioactivity assays of the algae extracts in vitro and future test of the final products in vivo. Interesting stuff!

We love algae! Until our next newsletter...

Find us: https://www.algaeceuticals.gr

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