

# Newsletter

Issue 15, January 2021



# ENHANCE MICROALGAE

High-added value industrial  
opportunities for microalgae in the  
Atlantic Area



**ENHANCE**  
MICROALGAE



**Interreg**

**Atlantic Area**

European Regional Development Fund



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## PBR culture trials at University of Manchester

EnhanceMicroAlgae researchers at the University of Manchester are carrying out culture experiments with *Chlorella sorokiniana* in a brand new 12L [Phyco-Bubble](#) column photobioreactor (PBR) by Varicon-Aqua.

*C. sorokiniana* is an eukaryotic freshwater strain with fast growth rates and high commercial interest due to its various applications for animal feed, nutritional supplements, and biofuels production. It can be cultivated autotrophically, mixotrophically or heterotrophically. The culture experiments aim to evaluate the growth of *Chlorella* biomass with particular interest on the accumulation of lipids under various cultivation conditions. Data will be exploited to carry out modelling and optimisation of the cultivation process.



Stay tuned for more updates from the Manchester team. In the meantime, find out more about the composition and cultivation characteristics of *Chlorella* strains and other microalgae species in the [EnhanceMicroAlgae Microalgae Strain Catalogue](#). The catalogue is receiving another update with more microalgae strains and additional information about relevant stakeholders.

## EnhanceMicroAlgae Publications

- **Light quality triggers biochemical modulation of *Cyanobium* sp.—photobiology as tool for biotechnological optimization**, published in *Journal of Applied Phycology*. Read [here](#).
- **Bioactive potential of *Cyanobium* sp. pigment-rich extracts**, published in *Journal of Applied Phycology*. Read [here](#).
- **Updated UPLC DAD MS/MS pigment composition of *Tisochrysis lutea* and purification of fucoxanthin using centrifugal partition chromatography for the chemosensitization of melanoma cells**, published in *Algal Research*. Read [here](#).
- **Models of microalgal cultivation for added-value products - A review**, published in *Biotechnology Advances*. Read [here](#).
- **3D Printed functional cookies fortified with *Arthorspira platensis*: Evaluation of its antioxidant potential and physical-chemical characterization**, published in *Food Hydrocolloids*. Read [here](#).
- **Printability, microstructure, and flow dynamics of phase-separated edible 3D inks**, published in *Food Hydrocolloids*. Read [here](#).
- **Analysis of scientific research driving microalgae market opportunities in Europe**, published in *Marine Drugs*. Read [here](#).
- **A Bibliometric Analysis of Microalgae Research in the World, Europe, and the European Atlantic Area**, published in *Marine Drugs*. Read [here](#).
- **The Nagoya Protocol and Its Implications on the EU Atlantic Area Countries**, published in the *Journal of Marine Science and Engineering*. Read [here](#).
- **Microalgae carotenoids induce apoptosis and chemosensitization of human melanoma cells to vemurafenib and dacarbazine**, published in the *Global Journal of Biology, Agriculture & Health Sciences*. Read [here](#).

Find more interesting publications from [EMA partners](#) by visiting our [website](#).





# ENHANCE MICROALGAE

## EnhanceMicroAlgae Comic Book

The 1<sup>st</sup> Chapter of the **EnhanceMicroalgae** comic book, by Xulia Pison, can be now [downloaded here](#).

Immerse yourself in the exciting world of microalgae through its illustrations!



## Conferences & Workshops

Find below a list of future conferences and workshops with relevance to the microalgae community taking place in 2021. Note that due to the Covid-19 pandemic, some of these conferences were postponed to 2021 and are now taking place in a virtual format.

- [IBiolC's 7<sup>th</sup> Annual Conference. Towards Net Zero: Growing the Bioeconomy](#) | 10 – 11 February, 2021 | Virtual conference
- [Algaculture for Biotechnology Online Training Course](#) | 24 -26 February, 2021 | Online format
- [IPC2021: 12th International Phycological Congress](#) | 22 - 26 March, 2021 | Online format
- [10th European Algae Industry Summit](#) | 21 – 22 April 2021 | Reykjavik, Iceland
- [29th European Biomass Conference & Exhibition](#) | 26 - 29 April 2021 | Online and Marseille, France
- [3rd International Conference for Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability](#) | 17 – 19 May, 2021 | Online format (live & on-demand)
- [2nd Seaweed for Health Conference](#) | 17 – 19 May, 2021 | Online format
- [15th World Congress on Biofuels and Bioenergy](#) | 24 – 25 May, 2021 | Webinar format
- [The 7th Conference of the International Society for Applied Phycology](#) | 24 May – 13 August, 2021 | Online format
- [Aquafarm Fair 2021 \(5th Edition – International Conference & Tradeshow on Aquaculture, Algaculture and Fishing Industry\)](#) | 9 – 10 June 2021 | Venice area, Italy
- [AlgalBBB 2021: International Conference on Algal Biomass, Biofuels and Bioproducts](#) | 14-16 June 2021 | Online format (live & on-demand)
- [Chlamy 2020+1: 19th International Conference on the Cell and Molecular Biology of Chlamydomonas](#) | 29 August – 3 September, 2021 | Six-Fours-les-Plages, France
- [AlgaEurope 2021](#) | 7 – 9 December, 2021 | Rome, Italy
- [ICMLDE: International Conference on Molecular Life of Diatoms and Evolution](#) | 13 – 14 December, 2021 | Cairo, Egypt

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