

THURSDAY 24th August 2023 SYMPOSIUM 14

Room « Tali melen »

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SYMPOSIUM 14 “Algal culture collections: their increasing societal relevance and role as gene repositories”

#### KEYNOTE

Microalgal culture collections: their roles and challenges in the 21th century

Chaerle, P.1 & Wilmotte, A.2

1. BCCM/DCG collection of diatoms, PAE, Ghent University, Belgium

2. BCCM/ULC collection of cyanobacteria, InBios, University of Liège, Belgium

awilmotte@uliege.be

Culture collections of cyanobacteria and eukaryotic microalgae play major roles in important processes: 1) Biodiversity conservation and long-term safeguarding; 2) Expanding the limits to our knowledge of biology; 3) Use of biological resources for the benefit of society.

In an ever-evolving context, they also have to deal with challenges related to these roles. Some challenges are technical, like the improvement of isolation and purification methods, of preservation protocols, and taxonomic characterization tools. They may also broaden their scope to the preservation of whole communities instead of isolates. Other challenges are more legal and bureaucratic, with the implementation of the Budapest Treaty for patent strains, and the Nagoya Protocol for all strains. Most culture collections are subsidized by public national structures, but are asked to generate revenues. This might originate from provided services and trainings, but a more beneficial valorization of their patrimony and expertise might come from collaborations with industry funders. However, this latter requests an extra layer of legal and business development support.

The recently started European Research Infrastructure “Microbial Resource Research Infrastructure” (MIRRI) aims to gather interested culture collections of all kinds of microorganisms and genetic material around a central access platform (<https://www.mirri.org/>).

Thus, the present landscape of the culture collections of microalgae is now stretched from the regional to the European scale.

We think that it is important to preserve the variety of culture collections, small and large, reflecting the huge diversity of the organisms they hold and the complexity of skills all of them possess.