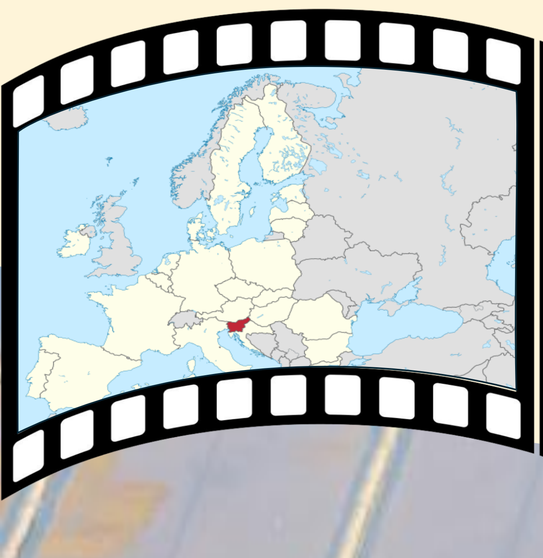
SCREENING FOR FATTY ACID AND MYCOSPORINE-LIKE AMINO ACIDS FROM MICROORGANISMS OF THE SEČOVLJE SALTWORKS

Daniel Bosch[a], Eylem Atak[a], Katja Klun[a], Verena Spiegler[b], Ana Rotter[a]

[a] Marine Biology Station Piran, National Institute of Biology, Piran, Slovenia
[b] Institute for Pharmaceutical Biology and Phytochemistry, University of Münster, Münster, Germany

daniel.bosch@nib.si



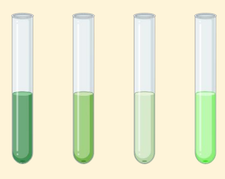
INTRODUCTION

Marine products have high economic potential. They are safe, sustainable and do not derive from animal sources.

Microalgae thriving in extreme saline environments produce a wide array of compounds. However, efforts to characterise and cultivate them have lacked global reach and biotechnological ambition.

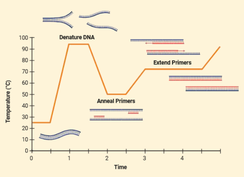
ISOLATION & CULTIVATION

Sampling

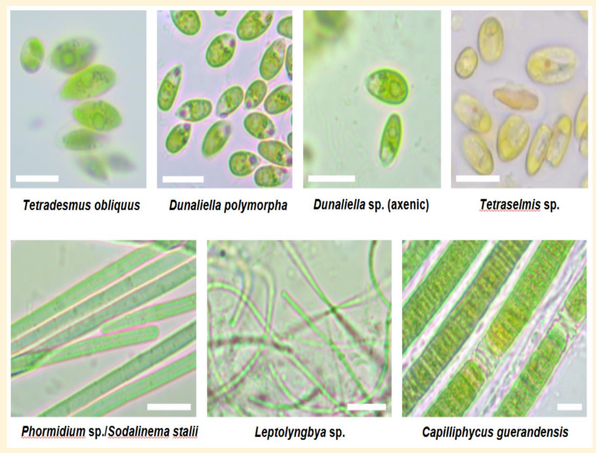


Targeted cultivation

Axenic culture

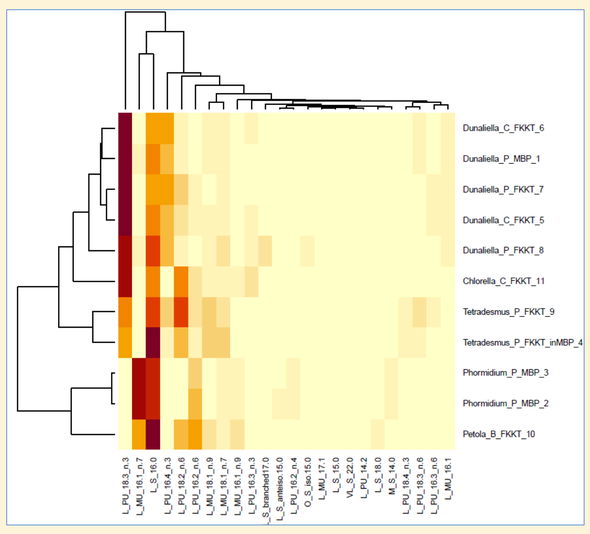


DNA barcoding



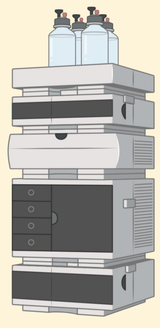
Isolated strains

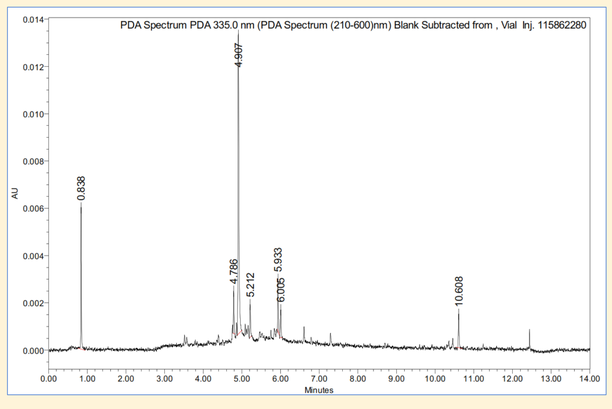
LIPIDS



High concentrations of linoleic acid, omega-6 linoleic acid and oleic acid.

MYCOSPORINE-LIKE AMINO ACIDS





Methanol/water extractions require high biomass for the detection of MAAs

FUTURE GOALS

- Increase cultivation volumes while reducing costs
- Develop green chemistry extractions
- Ensure broad accessibility to the toolkit

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