



**Monday 13. 9.**

**10:30 – 12:45**                      **Registration and accomodation** (payment of conference fee – 300 CZK and meals)

**13:00 – 13:00**                      **Foreword and Richard Lhotský**

**13:15 – 15:20**                      **PHYSIOLOGY**

13:15 – 13:40                      **Anxhela Hania** (Centre Algatech)  
N<sub>2</sub> fixation in the filamentous cyanobacterium *Trichodesmium* – are there strain-specific differences?

13:40 – 14:05                      **Dovilė Barcytė** (University of Ostrava)  
The endosphere of *Cryptomonas* has it all

14:05 – 14:30                      **Jana Knoppová** (Centre Algatech)  
Biogenesis of the oxygen evolving machine: Elucidation of the early steps of photosystem II assembly in the model cyanobacterium

14:30 – 14:55                      **Jana Pilátová** (Charles University)  
Paradigm shift in eukaryotic biocrystallization

14:55 – 15:20                      **Maxim Bokov** (Charles University)  
Rearrangement of intracellular crystalline guanine as an adaptation for various illumination levels

**15:20 – 15:45**                      **Coffe break and Poster session**

**15:45 – 18:25**                      **ECOLOGY I.**

15:45 – 16:10                      **Jana Kvíderová** (Institute of Botany)  
Oxyphototrophic microorganisms of Bulgarian thermal springs

16:10 – 16:35                      **Tomáš Bešta** (Biology Centre)  
Successional patterns and spatio-temporal dynamics of littoral periphyton in three recently flooded post-mining lakes

16:35 – 17:00                      **Kateřina Čapková** (Biology Centre)  
The effect of periphyton assemblages on productivity in oligotrophic post-mining lakes

**17:00 – 17:15                      Coffe break**

17:15 – 17:40            **Eliška Konopáčová** (University of Pardubice)  
P uptake traits of epiphyton in oligothropic post-mining lakes Milada, Medard and Most

17:40 – 18:05            **Kateřina Trumhová** (Charles University)  
Seasonal dynamics of mats composed by green conjugating alga *Zygnema* sp. (Zygnematophyceae)

18:05 – 18:30            **Lucie Vančurová** (Charles University)  
Choosing the right life partner: ecological drivers of lichen symbiosis

**18:30                                      Dinner/BBQ at Algatech campus**

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**Tuesday 14. 9.**

**8:30 – 10:10                      BIOACTIVE COMPOUNDS I.**

8:30 – 8:55                **Lenka Šindlerová** (Institute of Biophysics)  
Lipopolysaccharides from cyanobacteria and cyanobacterial water blooms activate various human cell types

8:55 – 9:20                **Riju Roy Chowdhury** (Masaryk University)  
The Steatogenic and Hepatotoxic potential of Cylindrospermopsin: 3D *in vitro* approach

9:20 – 9:45                **Ondřej Vašíček** (Institute of Biophysics)  
Disruptive and pro-inflammatory effects of newly recognized cyanobacterial toxins on Caco-2 human intestinal barrier model

9:45 – 10:10              **Subhasish Saha** (Centre Algatech)  
Quorum sensing regulation in cyanobacteria *Nostoc* sp. for the induction of Microviridin production and activation of silent Microviridin biosynthetic gene cluster

**10:10 – 10:40                      coffe break and Poster session**

**10:40 – 12:20                      TAXONOMY/PHYLOGENY I.**

10:40 – 11:05              **Lenka Procházková** (Charles University)  
Green snow surface blooms in the High Tatras caused by *Chloromonas* sp. nov. WP187 (Volvocales, Chlorophyta)

11:05 – 11:30              **Aleksandar Stanojković** (Palacký University Olomouc)  
Population-level genome-wide sequencing facilitate the species delimitation in *Laspinema thermale* (cyanobacteria)

11:30 – 11:55              **Petr Dvořák** (Palacký University Olomouc)  
The diversification within *Microcoleus* (cyanobacteria) is driven by climate and geography

11:55 – 12:20              **Svatopluk Skoupý** (Palacký University Olomouc)  
New cyanobacterium *Darthvaderiella*: the dark side of the force is spread around the world

<b>12:20 – 13:40</b>	<b>Lunch</b>
<b><u>13:40 – 15:45</u></b>	<b><u>ECOLOGY II.</u></b>
13:40 – 14:05	<b>Adam Ruka</b> (University of South Bohemia) Diatom community response to development and climate change in Lake George, an oligotrophic lake in the Adirondack Mountains
14:05 – 14:30	<b>Josef Elster</b> (University of South Bohemia) Abiotic environment characterization and influencing factors of microphytobenthic community abundance in the Adventfjorden tidal flat, Svalbard
14:30 – 14:55	<b>Eva Hejduková</b> (Charles University) Experimental freezing of freshwater diatoms from polar environment
14:55 – 15:20	<b>Yvonne Němcová</b> (Charles University) Comparing continental and local distribution patterns of protists: A case study of silica-scaled chrysophytes
15:20 – 15:45	<b>Olga Lepšová-Skácelová</b> (University of South Bohemia) Living together: invasive bryozoans and cyanobacteria/algae
<b>15:45 – 16:15</b>	<b>coffe break</b>
<b><u>16:15 – 17:00</u></b>	<b><u>Meeting of the Czech Phycological Society</u></b>
<b><u>17:30 – 19:00</u></b>	<b><u>Accompanying program (excursion to Regent brewery, botanical garden or Algatech)</u></b>
<b><u>19:00</u></b>	<b>Dinner at the hotel Zlatá hvězda</b>

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## **Wednesday 15. 9.**

### **8:30 – 11:05**

### **APPLIED PHYCOLOGY**

8:30 – 8:55      **Jaromír Lukavský** (Institute of Botany)

Bioprospection – For adventurers only?

8:55 – 9:20      **Gergely Ernő Lakatos** (Centre Algatech)

Psychrophilic *Monoraphidium* sp. B cultivation in outdoor thin-layer raceway pond for high value products

9:20 – 9:45      **Antonín Strížek** (Centre Algatech)

*Hibberdia magna*: Golden algae are rich

9:45 – 10:10      **Jiří Masojídek** (Centre Algatech)

Demonstrating the application of microalgae in agriculture

### **10:10 – 10:40**

### **Coffe break**

### **10:40 – 12:20**

### **BIOACTIVE COMPOUNDS II.**

10:40 – 11:05      **Pavel Hrouzek** (Centre Algatech)

High value cyanobacterial secondary metabolites with potential use in cancer therapy

11:05 – 11:30      **Luděk Bláha** (Masaryk University)

Biological assays for monitoring and assessment of toxic cyanobacteria – perspective from WHO and RECETOX

11:30 – 11:55      **J. A. Martínez Yerena** (Centre Algatech)

The eagle killer hunted: Identification and characterization of a novel cyanobacterial neurotoxin.

**11:55 – 12:25      Pavel Krist** (Zeiss Research Microscopy Solutions)

Microscopy in 2021 – Live Cell Imaging with High Resolution, Speed and Sensitivity

### **12:25 – 13:35**

### **Lunch**

### **13:35 – 14:50**

### **TAXONOMY/PHYLOGENY II**

13:35 – 14:00      **Jan Janouškovec** (Centre Algatech)

Algae becoming parasites: lessons from apicomplexans and dinoflagellates

14:00 – 14:25      **Pavel Přibyl** (Institute of Botany)

The new eustigmatophyte microalga with an unusual reproduction mode

### **14:25 – 14:40**

### **Announcement of the student compe**