



# ALGAE BIOTECHNOLOGY – TECHNIQUES AND OPPORTUNITIES FOR THE SUSTAINABLE BIOECONOMY

All times are in British Summer Time (BST). Please note that countries observing Central European Summer Time (CEST) are 1 hour behind (so 9am in UK is 10am in Germany).

## Day 0 (Tuesday 10<sup>TH</sup> May 2022)

**19:30 to 21:00:** Optional networking event to get to know each other

## DAY 1 (Wednesday 11<sup>th</sup> May 2022):

### **MORNING – WHAT ARE ALGAE AND WHY WOULD YOU EAT THEM? (Chair: Dr Matthew Davey)**

**09:30 – 09:45:** Welcome by Dr Matthew Davey (SAMS, UK) (Introduction & explanation of the course format and schedule)

**09:45 – 10:15:** What are algae? Introduction to algal biology and diversity – microalgae (Dr Anne Jungblut, Natural History Museum, London, UK)

**10:15 – 10:45:** What are seaweed and what are they used for? (Prof. Michele Stanley, SAMS, UK)

**10:45 – 11:00:** Coffee/tea break

**11:00 – 12:00 (SITE VISIT 1):** Online Tour of the international CCAP algal collection facility and questions (Dr Michael Ross, Cecilia Rad Menéndez)

**12:00 – 13:00:** Lunch break

### **AFTERNOON – ALGAL BIOMASS PRODUCTION FOR BIOTECHNOLOGICAL APPLICATIONS (Chair: Dr Ulrike Schmid-Staiger)**

**13:00 – 13:30:** Algae-based feed additives in aquaculture (Elísabet Eik Guðmundsdóttir, Matís, Iceland)

**13:30 – 14:00:** Coming into the light – from synthetic biology in the lab to growing transgenic algae at scale (Prof. Alison Smith, University of Cambridge, UK)

**14:00 - 14:30 (SITE VISIT 2):** AlgaeCytes – A Sustainable Process for EPA Production (John MacDonald, AlgaeCytes, UK)

**14:30 – 15:00:** Coffee/tea break

**15:00 – 15:30:** Integrated biorefinery for bioeconomy at Project INDEPENDENT (Dr Berat Haznedaroglu, Bogaziçi University, Turkey).

**15:30 - 16:30:** Breakout room sessions with delegates and speakers to discuss different topics of algal biotechnology

**16:30 – 16:45:** Close of first day & wrap-up discussion (Dr Matthew Davey, SAMS, UK)

**16:45 – 17:30:** Optional get together of the delegates to chat, network and participate in an algal-themed pub quiz



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**DAY 2 (Thursday 12<sup>th</sup> May 2022):****MORNING – SCALE UP OF ALGAL CULTIVATION & PROCESSING (Chair: Dr Payam Mehrshahi):**

**09:30 – 09:45:** Welcome by Dr Payam Mehrshahi (Department of Plant Sciences, University of Cambridge, UK)

**09:45 – 10:15 (LIVE SITE VISIT 3):** Algal Innovation Centre – University of Cambridge, UK (10l to 150l bioreactors and harvesting) (Dr Payam Mehrshahi and Dr Lorraine Archer):

**10:15 – 10:45 (LIVE SITE VISIT 4):** CCAP-ARIES Algal Research, Innovation and Environmental Science centre, UK (Dr Michael Ross, Dr Matthew Davey)

**10:45 - 11:00:** Coffee/tea break

**11:00 – 11:30:** Up- and downstream processing of microalgae (Gordon Brinitzer, Fraunhofer, Germany)

**11:30 – 12:00: (LIVE SITE VISIT 5):** Scale-up facilities & bioreactors tour at Fraunhofer (Dr Ulrike Schmid-Staiger, Fraunhofer, Germany)

**12:00 – 12:45:** Lunch break

**AFTERNOON – PRODUCTION & APPLICATION OF ALGAL PIGMENTS (Chair: Dr René Groben)**

**12:45 – 13:15:** ThermoBlue – A novel blue food colorant from thermophilic microalgae (Dr René Groben, Mátis, Iceland)

**13:15 – 13:45 (SITE VISIT 6):** Astaxanthin and its Production the Algalif way (Jan Eric Jessen, Algalif, Iceland)

**13:45 – 14:15:** Living Ink, algal pigments for the printing industry (Dr Scott Fulbright, Living Ink, USA)

**14:15 - 14:30:** Coffee/tea break

**AFTERNOON – PRESENT & FUTURE OF THE ALGAL INDUSTRY IN THE BLUE ECONOMY (Chair: Dr René Groben)**

**14:30 – 15:00:** Microalgae: from biomass production to a novel food development (Prof. Stephan Bischoff, University of Hohenheim, Germany)

**15:00 - 15:30:** Biodegradable plastic film packaging from seaweed. (Julie Encausse, Founder & Director of Marea, Iceland)

**15:30 – 16:00:** Vaxa, Iceland (Isaac Berzin, Vaxa, Iceland)

**16:00 – 16:30:** Close of the course & wrap-up discussion (Dr Payam Mehrshahi)



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