

# GlobalSeaweed Course

## Addressing Key Issues of Seaweed Aquaculture

### Policy-Regulation

### Molecular Breeding

### Disease Monitoring

### 8<sup>th</sup>-12<sup>th</sup> of May 2017

*SAMS looks forward to welcoming you on our Seaweed cultivation Course. This program details the logistics for the course including Directions, Timings and Tutors.*



<b>When</b>	Your course begins at 9.00 am prompt on the 8 <sup>th</sup> of May (You can register from 9.00am) and will finish at 5.00pm on the 12 <sup>th</sup> of May. A full course schedule is detailed below.
<b>Where</b>	This course takes place at SAMS in Oban. We are situated just north of Oban; surrounded on three sides by water and adjacent to Dunstaffnage Castle. Directions are included below.
<b>Please Bring</b>	Notepads, pens, outdoor footwear with good soles. You are more than welcome to bring your own questions and concerns regarding algal domestication and related topics, those will be discussed during each roundtable.



## Workshop Overview

Lecture Titles and order are Provisional and will be updated by speakers when applicable

Day	TOPICS
Monday 8 <sup>th</sup>	Seaweed Aquaculture Worldwide – Aquaculture Initiatives - Seaweed policy
Tuesday 9 <sup>th</sup>	Seaweed Policy – Social, Ecological challenges
Wednesday 10 <sup>th</sup>	Seaweed & Pathogen hunting - Practicals
Thursday 11 <sup>th</sup>	Pathogens in Algae and Established aquaculture sectors
Friday 12 <sup>th</sup>	Future of Seaweed Breeding – quantitative genetics, phenomics



DAY1 - Seaweed Aquaculture Worldwide – Aquaculture Initiatives - Seaweed policy			
Date	Time	Event	Speaker
Monday 8 <sup>th</sup> of May 2017	9.00	Registration	
	9.10-9.20am	Welcome & Housekeeping	Drs Adam Hughes & Claire Gachon
	09.20-10.20am	Safeguarding the future of the global seaweed aquaculture industry (SAMS-UNU Policy Brief 2016)	Dr Elizabeth Cottier-Cook
	10.20-11.00am	Perspectives on Scotland & UK seaweed stakeholders and aquaculture initiative	Dr Phil Kerrison
	11.00- 11.30	Coffee break	
	11.30-12.30	Seaweed aquaculture and IMTA in South Africa/Namibia: Trials, development, challenges	Pr John Bolton
	12.30-1.30pm	Lunch break	
	1.30-2.30pm	Seaweed aquaculture in Tanzania: Trials, development, challenges	Dr Flower E Msuya
	2.30-3.30	State of the art of the seaweed industry of Chile	Pedro Murúa
	3.30-5.30pm	Coffee break - Round table and Informal discussions – Visit of the Culture Collection of Algae and Protozoa	
	5.30	Bus to Oban	

<b>DAY2 - Seaweed Policy – Social, Ecological challenges</b>			
<b>Date</b>	<b>Time</b>	<b>Event</b>	<b>Speaker</b>
Tuesday 9 <sup>th</sup> of May 2017	09.15-10.30am	Worldwide kelp genetic diversity	Dr Ester Serrão
	10.30-11.00	Coffee break	
	11.00-11.40	Environmental interactions from macroalgae cultivation	Dr Adrian McLeod
	11.40-12.30	Risks to biodiversity incurred by cultivation and rapid domestication	Dr Claire Gachon
	12.30-1.30pm	Lunch break	
	1.30-2.30pm	Environmental assessment and monitoring	Dr Clare Scanlan
	2.30-3.00	Social acceptability of seaweed cultivation	Dr Claire Gachon
	3.00-3.30	Biological footprint and habitat formation in Seaweed cultivation	Dr Claire Gachon
	3.30-4.00	Coffee break – Roundtable discussion	
	4.00	Bus to Oban	



<b>DAY3 - Seaweed &amp; Pathogen hunting – Hands-on</b>			
<b>Date</b>	<b>Time</b>	<b>Event</b>	<b>Speaker</b>
Wednesday 10 <sup>th</sup> of May 2017	9.00am – 1.00 pm	Visit of SAMS seaweed farm Seaweed & pathogen sampling	Drs Adam Hughes & Adrian McLeod Alexander Thomson Iskander Bond
	1.00-2.00 pm	Lunch break	
	2.00-5.30 pm	Hands-On: Introduction to Seaweed Pathogens/Endophytes Observation, Isolation and Characterization	Drs. Martina Strittmatter, Soizic Prado, Claire Gachon, Yacine Badis, Pedro Murúa
	5.30pm	Bus to Oban	

<b>DAY4 - Seaweed Policy – Social, Ecological challenges</b>			
<b>Date</b>	<b>Time</b>	<b>Event</b>	<b>Speaker</b>
Thursday 11 <sup>th</sup> of May 2017	09.00-10.30am	Breeding for disease resistance, legislation, husbandry, disease diagnostic and prevention	<b>Dr Grant Stentiford</b>
	10.30-11.00	Coffee break	
	11.00-12.00	Oomycete Pathogens of Fish	<b>Prof. Pieter Van West</b>
	12.00-12.30	Pathogens of brown algae - Plasmodiophorids	<b>Pedro Murúa</b>
	12.30-1.00pm	Lunch break	
	1.00-2.00pm	Pathogens of red and brown algae (Oomycetes, Viruses, Endophytes)	<b>Dr Claire Gachon</b>
	2.00-2.30pm	Pathogen atlas - Molecular diagnosis of worldwide eDNA	<b>Dr Yacine Badis</b>
	2.30-3.00pm	<b>Roundtable Discussion – Opening of the Genomics &amp; Breeding theme - Coffee Break</b>	
	3.00-4.30pm	Brown algal genomics and applications	<b>Dr Mark Cock</b>
	4.30-5.30pm	Kelp transcriptomics: thermal stress and gametogenesis	<b>Dr Gareth Pearson</b>
5.30 pm 6.30pm	<b>Bus to Oban Networking Dinner</b>		

<b>DAY5 - Innovative Approaches to Seaweed Breeding – genomics - quantitative genetics, phenomics</b>			
<b>Date</b>	<b>Time</b>	<b>Event</b>	<b>Speaker</b>
Friday 12 <sup>th</sup> of May 2017	09.30-10.30am	Genetics - Introductory concepts	<b>Dr Yacine Badis</b>
	10.30-11.00am	Coffee break	
	11.00-12.00am	Genetic maps and QTL detection using the model <i>Ectocarpus siliculosus</i>	<b>Dr Komlan Avia</b>
	12.00-1.00 pm	Breeding and Population genetics	<b>Dr Bertrand Jacquemin</b>
	1.00-1.30pm	Lunch break	
	1.30-2.30pm	Phenomics and Integration of Environmental parameters	<b>Dr Ronan Sulpice</b>
	2.30-3.00pm	Phenomics: Non-destructive measurement of Algal Biomass using Nephelometry	<b>Dr Claire Gachon</b>
	3.00-4.00pm	<b>Demonstration of the use Nephelometry (Drs Benoît Calmes &amp; Claire Gachon)</b>	
	4.00-4.30pm	<b>Coffee Break &amp; Final Wrap-up</b>	
	4.45pm	<b>Bus to Oban</b>	

**Directions to SAMS:**

SAMS is located three miles from Oban on the A85 near the village of Dunbeg and is adjacent to the 13<sup>th</sup> Century Dunstaffnage Castle. The nearest airports are Glasgow (approx. 2 hours by car), Prestwick and Edinburgh (both approx. 3 hours by car). A train service operates between Glasgow and Oban. All travel options by public transport from the South require travelling through central Glasgow.

For directions and a map, please visit <http://www.sams.ac.uk/globalseaweed/travel-information>

If you are using satnav, our postcode is PA37 1QA.

On arrival: Please park in the visitors car park at the front of the building (on the right hand side) and make your way to Reception. Please allow plenty of time to travel to SAMS - you may want to stop and take photos of the beautiful scenery along the way!

**SAMS:**

SAMS is a leading scientific institution researching and delivering Marine Science. A partner in the University of the Highlands & Islands and a collaborative partner of the Natural Environment Research Council (NERC); SAMS is involved in a number of international and pan-European research projects. Our expertise includes Biogeochemistry and Earth Science, Ecology, Microbial and Molecular Biology, Physics, Sea Ice and Technology. If you are interested in collaborating with SAMS or have any commercial opportunities you would like to discuss during your visit, please let us know and we will endeavour to set up the relevant meetings for you whilst you're with us.

**Where to Stay:**

You may want to arrange overnight accommodation in Oban. (This is not included in the course fee.) Oban caters to a wide variety of budgets; from hostels to hotels, campsites to bed and breakfasts. For a list of places recommended by previous delegates, and hotels with prices negotiated by SAMS, please visit <http://www.sams.ac.uk/globalseaweed/travel-information>

**Oban:**

Oban is a small town situated around a pretty horseshoe bay and home to around 8000 people. Due to its tourist industry, the town provides a variety of facilities and services including a modern leisure centre, a community cinema and many pubs, shops and restaurants. The Corran Halls host a variety of shows, plays, music performances, ballet events etc. The stunning scenery offers access to nearly all outdoor pursuits and ferries can take you from the 'Gateway to the Isles' to many Hebridean destinations.

**Further Information:**

We hope we've been able to provide all the information you require to arrive safely and enjoy your time with us, but if you have any further questions, please email [SAMSCourses@sams.ac.uk](mailto:SAMSCourses@sams.ac.uk) or call 01631 559 000.

We look forward to your visit.

