



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 817992.







## **PROGRAMME**

## **Advanced BlueBio Training Course:**

"Resilient Blue Bio-refinery technologies: innovative solutions to valorise fishery side streams"

24<sup>th</sup> -26<sup>th</sup> October 2023

Norwegian University of Science and Technology (NTNU),

Department of Biological Sciences (IBA), Ålesund (Norway)

Monday 23 <sup>rd</sup> October	Tuesday 24 <sup>th</sup> October	Wednesday 25 <sup>th</sup> October	Thursday 26th October
	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)
Arrival	9:00		
	Welcome & Programme presentation Assoc. Prof. Janna Cropotova		
	9:10		
	Institutional greetings from Vice-Rector of NTNU i Ålesund Anne-Lise Sagen Major		
	and		
	Head of Department of Biological Sciences Ålesund Tove Havnegjerde		
	9:30		
	BlueBio ERANET Cofund Project coordinator, RCN, Norway Ingeborg Korme		
	and		
	Task 7.3 Leader, CNR, Italy Bernardo Patti		

Monday 23 <sup>rd</sup> October	Tuesday 24 <sup>th</sup> October	Wednesday 25 <sup>th</sup> October	Thursday 26th October
	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)
	Session 1  Advanced technologies and innovative solutions for efficient valorisation of fishery side streams	Session 2 Practical activities and interaction with industry	Session 3 Site visit and teamwork
	10:00  Importance of fish oil: case study of seasonal variation of gurnard oil from discards  Dr. Narcisa Bandarra  Head of Aquaculture and Upgrading Division Portuguese Institute of Sea and Atmosphere (IPMA), Lisbon, Portugal	8:00 – 12:00  Laboratory activity on extraction of protein and lipid compounds by enzymatic hydrolysis  (under supervision of Egidijus Dauksas/Elissavet Kotsoni and Kristine Kvangarsnes)	9:00 – 12:00 Visit to fish farms in the region
		<b>13:00</b> Lunch	<b>12:00</b> Lunch
	10:30  Heterotrophic growth of Galdieria sulphuraria on residues from aquaculture and fish processing industries  Dr. Stephanie Schönfelder Institut für Lebensmittel- und Umweltforschung e.V. (ILU) Papendorfer Weg 3 14806 Bad Belzig	14:00  Lectures from representatives from the seafood processing industries (3 presentations)	<ul> <li>13:00 – 16:00          Teamwork practise sessions     </li> <li>Biorefinery process planning (drafting a research project on biomass biorefinery in the context of the Blue Bioeconomy). Actions needed to implement HCB in the field of biorefinery (team questionnaire)</li> </ul>

Monday 23 <sup>rd</sup> October	Tuesday 24 <sup>th</sup> October	Wednesday 25 <sup>th</sup> October	Thursday 26th October
	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)
	11:00  Superchilling of fish – effect on shelf life and quality  Prof. Turid Rustad  Department of Biotechnology and Food  Science, Norwegian University of Science and  Technology, Trondheim, Norway		- Feedback and lessons learned (individual questionnaire)
	11:30 Coffee break	15:30 Coffee break	End of the course
	12:00  Achieving zero waste seafood chains via Novel Biorefineries  Prof. Brijesh K Tiwari  Principal Research Officer, Teagasc Food Research Centre  Dublin, Ireland	16:00 – 17:00 Discussion with representatives from industries	Departure of participants

Monday 23 <sup>rd</sup> October	Tuesday 24 <sup>th</sup> October	Wednesday 25 <sup>th</sup> October	Thursday 26t <sup>h</sup> October
	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)
	12:30  Innovative technological solutions for advanced extraction of valuable compounds from pelagic fish side streams and improving their functional properties  Assoc. Prof. Janna Cropotova Department of Biological Sciences Ålesund Norwegian University of Science and Technology, Ålesund, Norway		
	<b>13:00</b> Lunch		
	14:00  Emerging processing strategies for quality improvement and side streams valorizaton of crustaceans  Assoc. Prof. Pietro Rocculi Alma Mater Studiorum University, Bologna, Italy		
	14:30  Extraction of marine lipids from fish side streams: possibilities and challenges  Dr. Revilija Mozuraityte		

Monday 23 <sup>rd</sup> October	Tuesday 24 <sup>th</sup> October	Wednesday 25 <sup>th</sup> October	Thursday 26th October
	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)	Moderator: Janna Cropotova (NTNU, Norway)
	SINTEF Ocean, Trondheim, Norway		
From 18:00 Welcome, technical details, organisation, programme, get together, query about expectations	15:00  Full utilisation of sidestreams from the Icelandic fish and aquaculture sectors - Status  Dr. Margret Geirsdottir  Matis, Reykjavik, Iceland  15:30 Coffee break		
18:30  Ice breaking presentation 2' per student	16:00 – 17:30  Discussion with teachers		
<b>19:30</b> Dinner	19:30 Dinner	<b>19:30</b> Dinner	