

## General Programme European Congress of Marine Biotechnology 2023

Days	Tuesday, November 21	Wednesday, November 22	Thursday, November 23	Friday, November 24	
Location	Casa Diocesana, Málaga	Aula Magna, Faculty of Medicine, University of Malaga	Aula Magna, Faculty of Medicine, University of Malaga	Aula Magna, Faculty of Medicine, University of Malaga	
9:30 - 10:30		Plenary Lecture 1 Dra. Claire Hellio	Plenary Lecture 2 Dra. Marthe Rousseau		
10:30 – 12:00		Session 1. Biofouling, Antifouling, and Bioremediation	Session 5. Marine Natural Products and Materials	ESMB Assembly	
12:00		Coffee Break	Coffee Break	Springer Award (Dra. Victoria Ferrara)	
12:30 – 14:00		Session 2. Aquaculture Biotechnology	Session 6. Marine Biomaterials for Regenerative Medicine	Coffee Break	
				Plenary Lecture 3 Dr. José M. Fernández Sousa (Pharmamar)	
14:00 – 16:00		Lunch	Lunch	Closing Ceremony	
16:00 – 17:30		Registration	Session 3. Algae Biotechnology	Session 7. Marine Nutraceutical, Pharmaceutical and Cosmeceuticals	
17:30			Coffee Break	Coffee Break	
18:00 – 19:30		Opening Ceremony	Session 4. Marine Biodiversity and Biotechnological Regulation	Session 8. Marine Feed, Food, and Informatics Tools	
19:30				Gala Dinner (Start at 20:30) Casa Diocesana, Málaga	
20:00 – 21:00	Welcome Drink				

# Plenary Talks Session Programme

*Wednesday, November 22, 2023*

*Location: Aula Magna, Faculty of Medicine, University of Malaga*

*Time: 09:30 h -10:15*

**Plenary Lecture 1** will be given by **Dra. Claire Hellio**, Université de Bretagne Occidentale (France)

**Title: " Fostering innovation in marine biotechnologies (R&D, higher education and competitiveness)"**

*Thursday, November 23, 2023*

*Location: Aula Magna, Faculty of Medicine, University of Malaga*

*Time: 09:30-10:15 h*

**Plenary Lecture 2** will be given by **Dra. Marthe Rousseau**, Centre National de la Recherche Scientifique (France)

**Title: "What are the benefits of nacre for bone health?"**

*Friday, November 24, 2023*

*Location: Aula Magna, Faculty of Medicine, University of Malaga*

*Time: 13:00 -14:00 h*

**Plenary Lecture 3** will be given by **Dr. José María Fernández Sousa**, PHARMAMAR (Spain)

**Title: "Marine-derived drugs"**

# Oral Communications Session Programme

Wednesday, November 22, 2023

Location: Aula Magna, Faculty of Medicine, University of Malaga

<i>Session 1. Biofouling, Antifouling, and Bioremediation</i> <i>Chairs: Sergey Dobretsov and Claire Hellio</i>		
<b>Hour</b>	<b>Presenting author</b>	<b>Title</b>
10:30 – 11:00	Sergey Dobretsov	Waste as antifouling solutions: biofouling prevention by chitosan coatings
11:00 – 11:15	Mama Aïssata Bangoura	Pla as amphiphilic copolymers additives for fouling release applications
11:15 – 11:30	Fabrice Azemar	Hydrophilic additives for amphiphilic fouling release coatings
11:30 – 11:45	Mohammed Al-Belushi	ZnO nanorod-chitosan composite coatings with enhanced antifouling properties
11:45 – 12:00	Susana García Sánchez	Metagenomics and genetic screening for <i>phac/phaz</i> genes identify novel <i>pha</i> -metabolizing bacteria from the Mediterranean sea

<i>Session 2. Aquaculture Biotechnology</i> <i>Chairs: Concetta Messina and Jorge García</i>		
<b>Hour</b>	<b>Presenting author</b>	<b>Title</b>
12:30 – 13:00	Valentina Valenzuela-Muñoz	Transcriptome and microbiome profile of Atlantic salmon ( <i>Salmo salar</i> ) during successive infestation with the sea louse <i>Caligus rogercresseyi</i>
13:00 – 13:15	Julia Béjar	Validation of two <i>pmx</i> -luciferase reporter systems to study virus - host interaction
13:15 – 13:30	Antonio Casuso	Functional genomics to evaluate anti-sea lice vaccines in the Atlantic salmon
13:30 – 13:45	Elena Chaves-Pozo	Biotechnological tools for the study and control of nodavirus
13:45 – 14:00	Ronald de Vries	Seaweed valorization mediated by fungi and their enzymes

Wednesday, November 22, 2023

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<i>Session 3. Algae Biotechnology</i> <i>Chairs: Félix L. Figueroa and Cintia Gómez</i>		
Hour	Presenting author	Title
16:00 – 16:30	Rebecca Nordio	Enhancing microalgae-based wastewater treatment efficiency through pH, dissolved oxygen, and culture height optimization in raceway reactors
16:30 – 16:45	Gabriele De Falco	MicroRNA-mediated environmental adaptation in microalgae from physiological responses to biotechnology applications
16:45 – 17:00	Filipe Maciel	<i>Pavlova gyrans</i> as a promising and sustainable source of carotenoids – optimization of the key growth parameters
17:00 – 17:15	Fernanda Toro	Valorization of <i>Ulva stenophylloides</i> : sustainable biorefinery approach for green tide exploitation in Algarrobo Bay, Chile
17:15 – 17:30	Allisson Astuya-Villalón	“HAKAFISH”: microalgae-derived sedative formulation for salmonid transport under real operational conditions

<i>Session 4. Marine Biodiversity and Biotechnological Regulation</i> <i>Chairs: Renata Denaro and María Luisa Gómez</i>		
Hour	Presenting author	Title
18:00 – 18:30	María Luisa Gómez	Legal proposal addressing the challenges of marine biotechnology in the era of generative AI
18:30 – 18:45	Ziortza Agirrezabala	Diversity and biotechnological potential of filamentous fungi isolated from sediments of Basque estuaries
18:45 – 19:00	Costanza Ragozzino	Combining osmac and metabologenomic approaches to discover novel lipopeptide biosurfactants from a deep-sea <i>Rhodococcus</i> strain
19:00 – 19:15	Raquel Ledo Doval	Marine fungi: key players in algal biomass valorization
19:15 – 19:30	Pedro Geada	Are retail by-products suitable for microalgae growth?

Thursday, November 23, 2023

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<i>Session 5. Marine Natural Products and Materials</i> <i>Chairs: Tiago H. Silva and Maria Salta</i>		
<b>Hour</b>	<b>Presenting author</b>	<b>Title</b>
10:30 – 11:00	Marco Giovine	Collagen filaments derived from <i>Ircinia oros</i> (Schmidt, 1864) and <i>Sarcotragus foetidus</i> (Schmidt, 1862): potential applications
11:00 – 11:15	Vincenza Casella	Revealing the biotechnological potential of deep-sea <i>Bacillus</i> sp. bcp32: production of novel biosurfactans and antibiotics
11:15 – 11:30	Surendraraj Alagarsamy	From arid sands to enzymatic gold: a novel amylase with high specific activity from <i>Priestia flexa</i> in Kuwait sabkha
11:30 – 11:45	Giovanna Romano	Prostaglandins biosynthetic pathway in diatoms under abiotic stresses
11:45 – 12:00	Rita O. Sousa	Codfish skin collagen and derivatives isolation using supercritical fluid technology

<i>Session 6. Marine Biomaterials for Regenerative Medicine</i> <i>Chairs: Torger Børresen and Marco Giovine</i>		
<b>Hour</b>	<b>Presenting author</b>	<b>Title</b>
12:30 – 13:00	Tiago H. Silva	Materials isolated from marine resources and by-products on the development of biomaterials for regenerative medicine
13:00 – 13:15	Marina Pozzolini	Use of collagenase-resistant marine collagen to produce 2D-films containing collagenase immobilized in bio-silica nanoparticles
13:15 – 13:30	Michela Sugni	Sea urchin waste valorization toward innovative multifunctional biomaterials for regenerative medicine
13:30 – 13:45	Catarina F. Marques	Sustainable printing of tridimensional scaffolds based on cod fish by-products for bone tissue engineering
13:45 – 14:00	Gabriela S. Diogo	Marine origin biomaterials in the future of bone regeneration: in vivo study in New Zealand rabbit models

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Session 7. Marine Nutraceutical, Pharmaceutical and Cosmeceuticals Chairs: Roberto T. Abdala and Giovanna Romano		
Hour	Presenting author	Title
16:00 – 16:30	Matteo Francavilla	Blue-biorefinery of Mediterranean seaweed <i>Gracilaria gracilis</i>
16:30 – 16:45	Félix L. Figueroa	Evaluation of bioactive compounds in the exotic alien species <i>Rugulopteryx okamurae</i> (Ochrophyta)
16:45 – 17:00	Pablo Castro-Varela	New insights of R-phycoerythrin alginate/shellac beads: <i>in vitro</i> gastrointestinal digestion and their cytotoxicity for nutraceutical applications
17:00 – 17:15	Giulia De Negri Atanasio	Benzophenone-3: remediation with microalgae and the following investigation of endocrine disruptor potential
17:15 – 17:30	Gustavo Cabrera-Barjas	Preparation, characterization and biological activity of chitin nanofibers from Humboldt squid ( <i>Dosidicus gigas</i> ) and forest mushroom ( <i>Suillus luteus</i> )

Session 8. Marine Feed, Food, and Informatics Tools Chairs: Sergey Dobretsov and Santiago Fernández		
Hour	Presenting author	Title
18:00 – 18:30	Santiago Fernández	Sea vegetables: gastronomy and nutrition
18:30 – 18:45	Maria Alquiza Madina	Biotechnology and copepods in the Norwegian Sea, a case study where biology influences processing technologies
18:45 – 19:00	Ignacio Moreu Badia	Influence of light quality and nutrients on coloration, internal compounds, and ecophysiology performance of <i>Chondracanthus teedei</i>
19:00 – 19:15	Cristian Gallardo-Escárate	Proximity ligation (HI-C) analysis in the sea louse <i>Caligus rogercresseyi</i> reveals chromosome structural variations associated with sex-biased gene expression
19:15 – 19:30	Federica Di Costanzo	The biotechnological potential of the diatom <i>Thalassiosira rotula</i> and its associated bacteria

## Poster Session Programme

Wednesday, November 22, 2023

Location: Aula Magna, Faculty of Medicine, University of Malaga

Poster number	Presenting author	Title
1	Alba Galafat	Assessment of the effect of including a microalgal additive in plant-based feeds for <i>Seriola dumerili</i> juveniles
2	Alejandro Vallejos-Almirall	Exploring photolyase production on <i>Dunaliella salina</i> and <i>Haematococcus lacustris</i> for cosmeceutical applications
3	Ambbar Aballay	Interaction simulation between paralytic toxins and saxiphilin mutants for the development of a biosensor
4	Ana Filipa Cardoso Carneiro	Comparative analysis of collagen extraction methods from starfish ( <i>Asterias rubens</i> ) for regenerative medicine applications
5	Ana Moreira	Decoding <i>Chrysolita pseudoroscoffensis</i> lipidome: a source of high-value polar lipids with relevance for biotechnological applications
6	Azhar Hamood	Copper and zinc oxide nanoparticle coating with enhanced antifouling properties
7	Carmen González Sotelo	Advanced genetic tools for the control of seafood authenticity
8	Carol Ostojic	Production of molecules of biotechnological interest in <i>Hapalosiphon welwitschii</i> under nitrogen limitation
9	Carolina Johnstone España	Differentially expressed genes to assess gilthead seabream welfare
10	Carolina Johnstone España	Shi drum betanodavirus susceptibility hinges on the stocking density
11	Cintia Gómez-Serrano	Characterization of <i>Ulva</i> sp. for production in raceway photobioreactors
12	Concetta Maria Messina	Exploring the potential of <i>Nannochloropsis</i> sp. extracts in vitro for cosmeceutical applications
13	Cristina González-Fernández	Seasonal variability in the photosynthetic activity and biochemical composition of the alien alga <i>Rugulopteryx okamuræ</i>
14	Débora T. Pereira	Evaluation of aqueous and alkaline hydrolysis method for the efficient extraction bioactive compound in <i>Porphyra linearis</i> (Rhodophyta)
15	Elena Chaves-Pozo	Microalgae as natural antimicrobials for aquaculture
16	Eleonora Montuori	Antiproliferative activities of marine microalgae against melanoma and lymphoma cells
17	Eleonora Tassara	2D collagen membranes from marine sponge <i>Chondrosia reniformis</i> for skin-regenerative medicine applications: an in vitro evaluation

18	Fabián A. Figueroa	Influence of latitudinal variation on the chemical characteristics of the fucoidans of <i>Lessonia spicata</i> and its effect on antioxidant and anticoagulant activities
19	Fabrice Azemar	Gyrofoul: dynamic device to evaluate the antifouling performance in seawater
20	Felisa Rey	Exploring the potential of lipid extracts from the marine fungi <i>Emericellopsis cladophorae</i> and <i>Zalerion maritima</i> as a source of bioactive compounds
21	Francisco Pereira	Plasmonic effect on the performance of microalgal cultures
22	Giordana Martinelli	From sea urchins waste to tissue regeneration: innovative collagen-based biocomposite materials
23	Giorgia Allaria	Extracting added-value fish oils from marine by-product for cosmetic application
24	Giovanna Romano	Exploring diatom resting stages in Calabrian marine waters: biological diversity, chemical cues and biotechnological potential
25	Jorge Herrera	Effect of extrusion on the polyphenol profile in aquafeeds supplemented with grape marc extract
26	José Antonio Vázquez	Chemical waste effluents from fish skin gelatin isolation as source of peptones for the production of probiotics
27	José Luis Ferres García	Monitoring of the seaweed <i>Rugulopteryx okamurae</i> on the coast of the Alboran sea
28	Juan Decara	Effect of fucoidan extract from <i>Lessonia trabeculata</i> against acetaminophen hepatotoxicity in a preclinical model of dili
29	Juan José Gallardo	Exploring the biotechnological potential of an undescribed species of marine microalga of the phylum haptophyte
30	Juan Luis Fuentes	Comparison of the growth of an isolated haloarchaeon in Huelva using standard culture media and a modified formulation with natural salt, glucose, and yeast extract
31	Julia Béjar	Marine amphipods stimulate the interferon 1 system in fish cell lines
32	Julia Béjar	Evaluation of the antiviral activity of the growth hormone releasing peptide-6 ( <i>ghrp-6</i> ) against nervous necrosis virus
33	Julia Vega	Evaluation of the antioxidant capacity of bioactive compounds in different species of <i>Porphyra sensu lato</i>
34	Karina Véliz	Effect of molecular size on <i>in vitro</i> immunostimulatory and antioxidant activity of ulvan from chilean <i>Ulva rigida</i>
35	Katherine Sossa	Environmental disinfectant based on algae for the control of post-harvest phytopathogens in the agri-food industry
36	Laura González Delgado	Chemostat cultivation of <i>Coccomyxa onubensis</i> in the presence of copper (ii) and evaluation of its antioxidant capacity
37	Leandro Madureira	Can microalgae or cyanobacteria metabolize CH <sub>4</sub> ?
38	Lidia Martin-Gordillo	Growth and valuable metabolites accumulation dynamics of a highly acidic environment microalga in a pre-pilot scale fluidized bed system



39	Lorenzo Dondero	Evaluation of hydrolised marine collagen as cosmetic active principle
40	Luciana Regaldo	Cultivation of <i>Euglena cantabrica</i> in aquaculture wastewater: obtaining biomass and metabolites of biotechnological interest
41	Manuel Marí Beffa	<i>Danio rerio</i> embryogenesis as a new <i>in vivo</i> assay for potential nutraceutical and pharmaceutical marine-derived polysaccharides
42	Margherita Roncoroni	Comparative evaluation of antioxidant pigments and collagen biomaterials from wastes of two edible sea urchin species
43	María Dolores Torres	Harnessing of carrageenan from <i>Eucheuma spinosum</i> red seaweed industrial wastes
44	María Dolores Torres	Green techniques for ulvan extraction: hydrothermal versus ultrasound assisted extraction
45	María Robles	Performance of the acidotolerant microalga <i>Coccomyxa onubensis</i> under nitrogen limitation
46	Miguel Rocha	Marine sponge <i>Chondrosia reniformis</i> collagen isolation suitable for development of biomedical applications
47	Raquel Ledo Doval	Marine penicillia vs. their terrestrial counterparts in their ability for marine and plant biomass degradation
48	Rocío Camacho Gil	Valorization of third-generation biomass by gasification to obtain hydrogen-rich streams
49	Salim Kichouh Aiadi	Increasing metabolite production in <i>Amphidinium carterae</i> by combining phytohormones and salinity
50	Sofía Essounani Mérida	Microalgae valorization by catalytic assisted hydrothermal liquefaction
51	Virgina Casas Arrojo	Antitumor and antioxidant activity of sulfated polysaccharides from marine algae: <i>Laminaria ochroleuca</i> and <i>Durvillaea antarctica</i>
52	Yeny Leal	Alternative splicing in Atlantic salmon head kidney and shk-1 cell line during the <i>Piscirickettsia salmonis</i> infection
53	Yolanda Soriano Jerez	Efficient transparent coating for the reduction of marine microalgae cell adhesion in pilot plant scale photobioreactors
54	Yolanda Soriano Jerez	Evaluation of cell adhesion with different culture conditions for the production of high value metabolites in microalgae