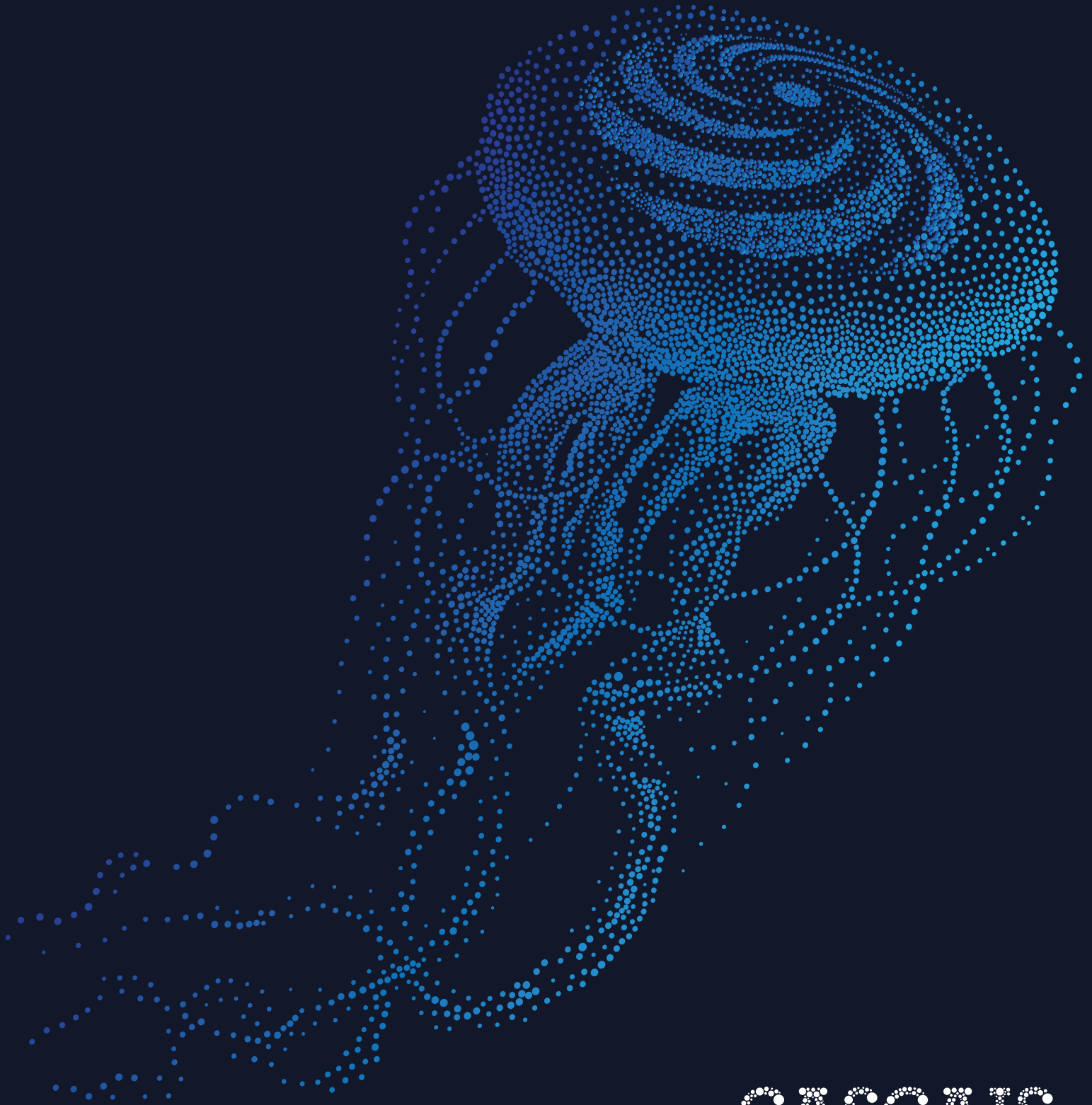




BioMarine
BUSINESS
CONVENTION

CASCAIS, PORTUGAL
4 - 5 NOVEMBER
2019



CASCAIS

2019 PARTNERS

OFFICIAL PARTNER

CASCAIS

PARTNERS 2019



Blue
Original



Nestlé

SEPPIC



GROUPE ROCHER



BNP PARIBAS



Plant & Food
RESEARCH



RANGAHAU AHUMĀRA KAI

BIOASIS
GRAN CANARIA

PLASTICS
INNOVATION

Competence Center

WELCOME WORDS



Dear friends,

On behalf of the people of Cascais please allow me to extend a warm welcome to all participants in BioMarine.

We are both proud and happy to be hosting the world's most important conference on the Sea, as the Atlantic people which we truly are.

Cascais is a secular town and its whole life has been defined by its relationship with the Sea.

It is from this Sea that we sourced our food. It is from this Sea that the Portuguese Sailors gave new worlds to the world.

It is in this Sea that we solved ancient disputes with Francis Drake and Napoleon Bonaparte.

It is this Sea that brought to us all the peoples of Europe who searched for peace and freedom in a continent ravaged by war.

It is in this Sea that we are meeting the future which is being made and prepared in one of the most innovative Maritime Centres in the country.

A sustainable future BioMarine community is proudly building with us. I look forward to meet you all in Cascais.

Carlos CARREIRAS

Mayor of Cascais



As the effects of climate change become more apparent, environmentalists urge us to drastically reduce our carbon footprint. While it is true that human lifestyles can be adjusted to become more sustainable, we at BioMarine believe that innovative blue technologies can also contribute to reducing the global carbon footprint. Encouraging energy transition towards the use of hydrogen and biofuels, promoting the use biomaterials to replace plastic, or feeding the world with vegetal and low trophic species for protein are some examples of what bio marine resources have to offer. The blue bioeconomy's solutions reflect Schumpeter's «creative destruction» - they represent cutting edge and disruptive technologies that will solve most of the sunset industries' current deadlocks. With animal welfare becoming an important issue, why not consider cellular mariculture to replace

wild catches with protein grown from cells? Likewise, the blue bioeconomy can eliminate plastics and microbeads from cosmetic products through the use of natural ingredients selected from sustainable international blue cooperatives. Finally, combining animal and vegetal photosymbiotic capabilities will allow us to produce any biomolecule for energy, health or material purposes.

This year at BioMarine, we will push you to the limits. We do not expect usual discussions. Instead we will address future issues and we will confront the feasibility of your projects. Each main topic will be followed up with an innovation workshop six months after BioMarine. These innovation workshops are meant to initiate consortia with practical developments. Are you a disruptive blue innovator or entrepreneur? Then let's get into action.

Pierre ERWES

Chairman BioMarine



Blue
Original

We
We are
We are a
dynamic



Integrating and providing
company of functional
products and services
oriented to the **health
and wellness** market.

“Our world leading team covenant in *sea cucumber* and *echinoderms* research continue developing **specific** and **tailored** products for *leading brands and companies around the globe.*”

Blue Original

Products & active ingredients

- Marine collagen
- Marine peptides
- Echinospheres™
- Echinocaps™
- AAA Premium Dried Sea Cucumber
- Hydrogel for tissue engineering



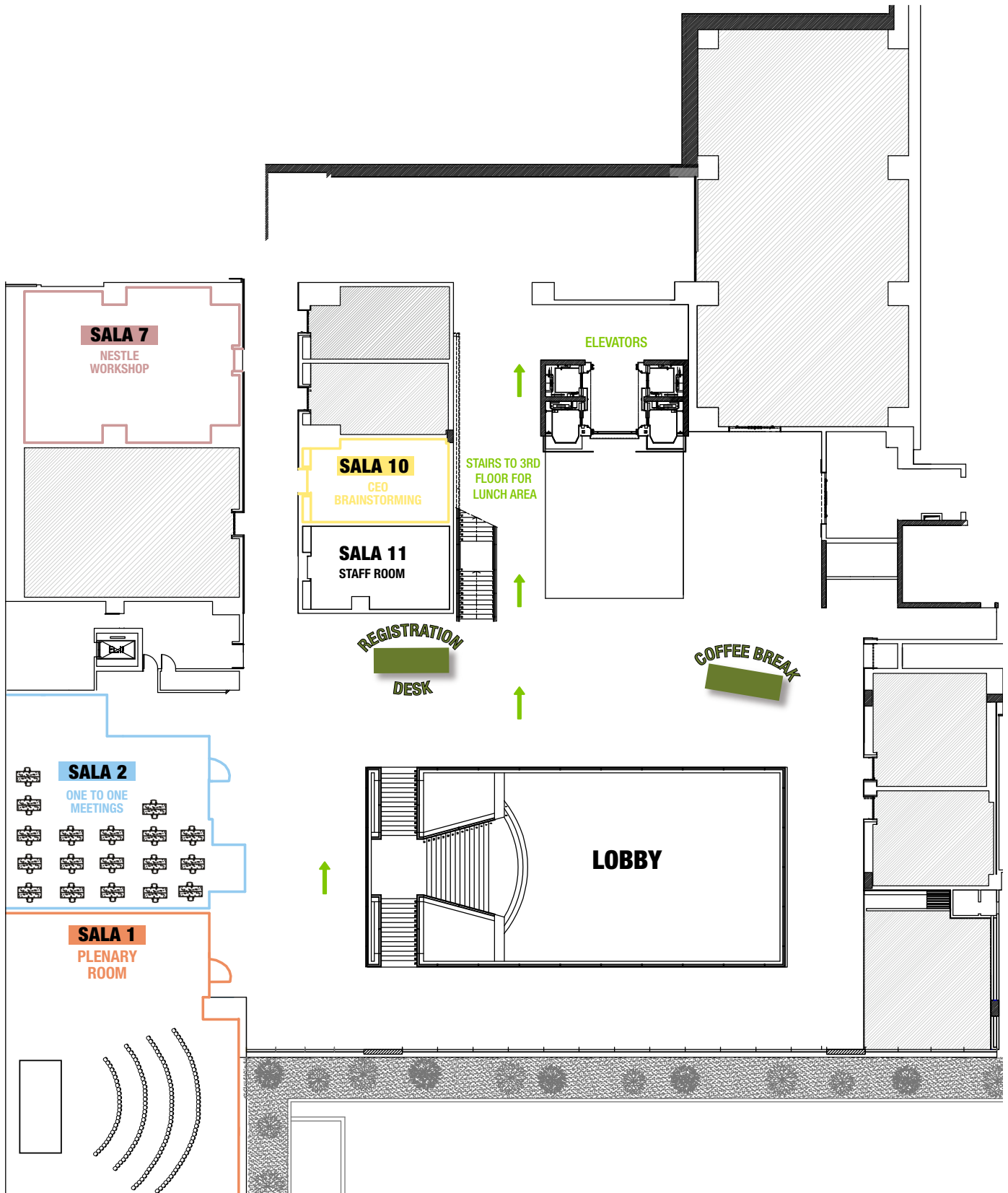
Contact | info@blueoriginalgroup.com

blueoriginalgroup.com

FLOOR PLAN

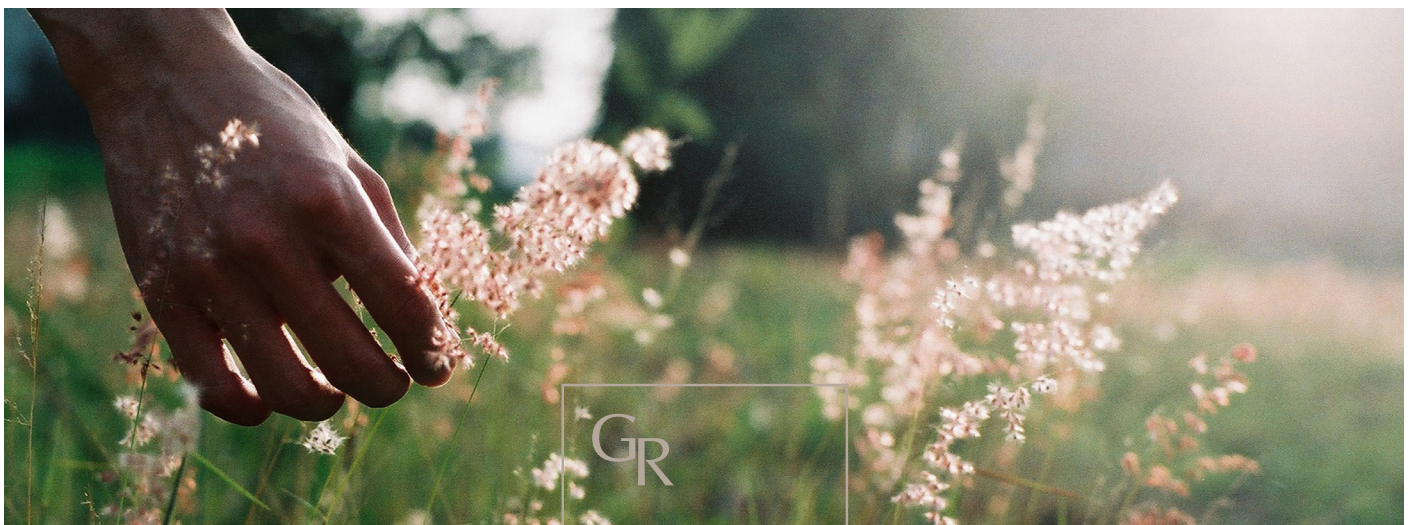
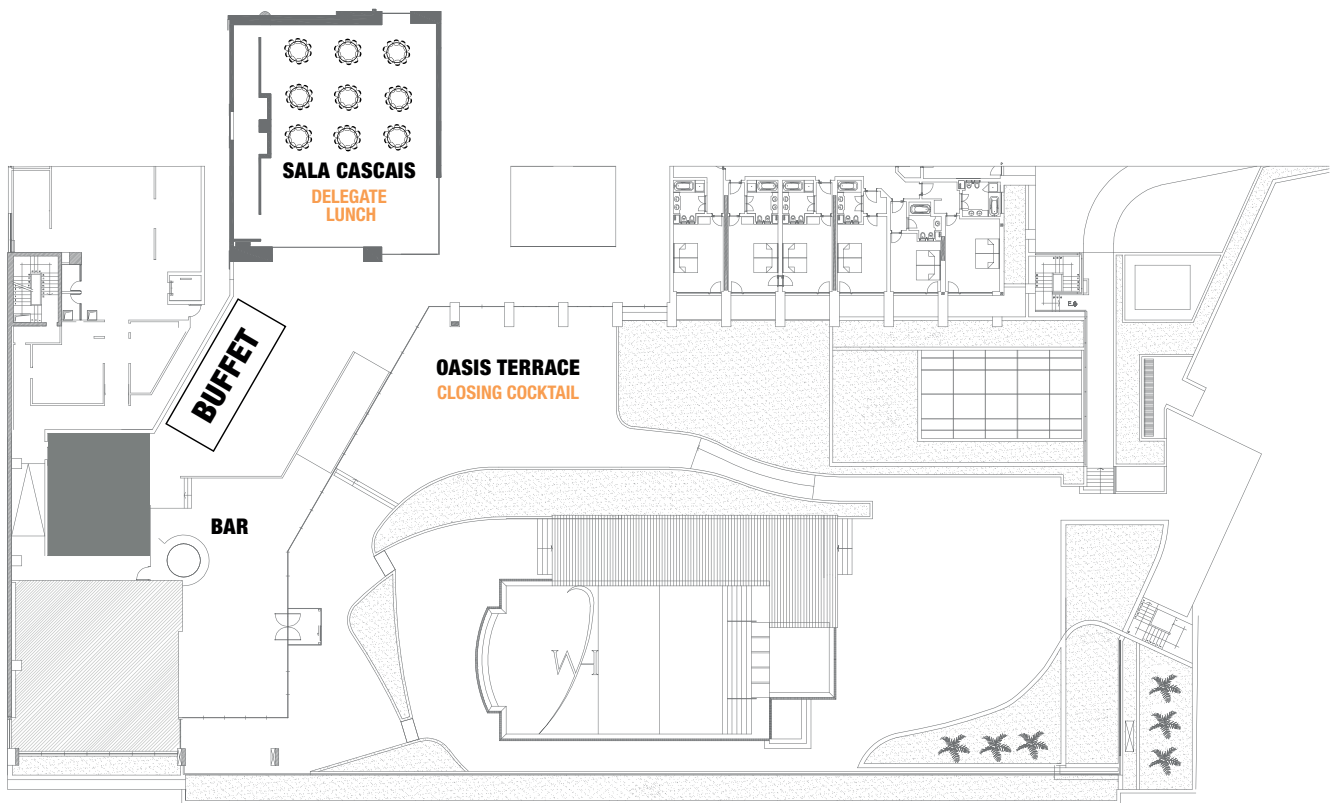
GALERIA

All working sessions and One to One



3° FLOOR

Lunch and closing cocktail area



GR
care by nature

We have always been convinced that responsible development is an opportunity to create value, synonymous with the long term, cost efficiency, adaptability to markets, attractiveness and anticipation. Responsible development can provide the solution when we need to think differently and capitalize on wealth of our activities.

GR
GROUPE ROCHER

Immatriculée au RCS de Vannes sous le n° 876 580 077 - Crédit photo : Getty image

- YVES ROCHER
- ARBONNE
- STANHOME
- KIOTIS PARIS
- DR PIERRE RICAUD PARIS
- DANIEL JOUVANCE
- SABON
- flormar

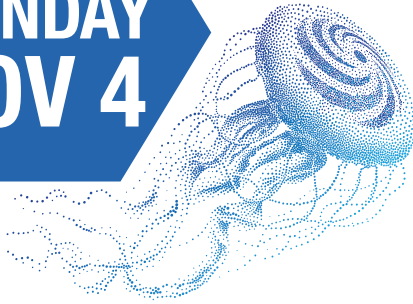
PROGRAM AT A GLANCE

| | |
|---|--|
| ■ SALA 1 | ■ SALA 7 |
| ■ SALA 2 | ■ SALA 10 |



| TIME | MONDAY NOV 4 TH | | TIME | TUESDAY NOV 5 TH | | |
|---------------|--|---|------------------------|--|------------------|---------------------|
| 08:00 - 09:00 | Pickup your badge ! (Galeria) | | 08:00 - 08:30 | Pickup your badge ! (Galeria) | | |
| | | | 08:30 - 9:00 | Good Morning BioMarine : Cleaning the issue of microplastics | 1 T O 1 | |
| 09:00 - 10:00 | | Innovation Workshop « Innovative bio packaging » | 09:00 - 10:00 | Will Algae and Seaweed replace protein in the feed and food industry ? | | CEO BrainStorming 1 |
| 10:00 - 12:00 | Launch IBC | | 10:00 - 10:30 | Climate & Blue bonds | | |
| | | | 10:30 - 11:00 | Coffee break (Galeria) | | |
| | | | 11:00 - 12:00 | How to foster global R&D and industry partnerships ? | | CEO BrainStorming 2 |
| 12:00 - 14:00 | Lunch (3rd Floor restaurant) | | 12:00-12:30 | KeyNote | | |
| | | | 12:30 - 13:30 | Lunch (3rd Floor restaurant) | | |
| | | | 13:30 - 14:00 | | | |
| 14:00 - 15:00 | Research and Blue Innovation | | 14:00 - 14:30 | Cellular agriculture for plants and animals | | |
| 15:00 - 15:30 | Blue Ingredients for cutting edge innovation | | 14:30 - 15:30 | Role of marine ingredients in cosmeceuticals and nutrition | | |
| 15:30 - 16:00 | | | Coffee break (Galeria) | | | |
| 16:00 - 17:00 | | | 16:00 - 17:00 | Will BioPlastics turn blue? | | |
| 17:00 - 17:30 | Coffee break (Galeria) | | 17:00 - 18:00 | Financing the Bioeconomy | | |
| 17:30 - 18:30 | Opening plenary | | 18:00 - 18:30 | Closing remarks | | |
| 20:00 | Gala | | 19:00 - 19:30 | Farewell networking cocktail | | |

PROGRAM

**MONDAY
NOV 4**



 SALA 1
 SALA 2

 SALA 7
 SALA 10

| | |
|---------------|--|
| 08:00 - 08:45 | BioMarine delegates... Pick up your badge ! |
| 09:00 – 12:00 | <p>PRIVATE SIDE EVENT - 20 participants max</p> <p>After the successful innovation workshop on blue bio plastic organized in Monaco in March 2019, we have decided to bring the consortium into practical business cases. Nestlé - our partner for this 4th Innovation Workshop - and BioMarine will invite selected stakeholders to participate to a workshop on innovative bio packaging. The expected outcome is to initiate practical industry partnerships to support Nestlé's efforts to produce a new generation of biodegradable and water soluble bio packaging. To this end BioMarine will mobilize key actors from its blue bioplastic consortium in order to cover all fronts from sustainable production of marine biomass, to end user final product. We have decided to bring together finance, regulatory, producers, technology provider, research institutes so we can analyze all potential bottlenecks and propose an action plan to bring selected stakeholder into a business partnership with Nestlé.</p> <p>Organized in partnership with Nestlé : 20 invited participants.</p> <p><i>Violette Bourg</i>, Specialist Materials Science, Nestlé , Switzerland <i>Robert Witik</i>, Senior Specialist Sustainability & packaging Material science, Nestlé, Switzerland <i>Tim Börner</i>, R&D Specialist in Enzyme Technology & Protein Sciences, Nestlé, Switzerland <i>James Mc Carthy</i>, Project Manager- Expert in Systems Biology, Nestlé, Switzerland</p> |
| 10:00 – 12:00 | <p>Launch of the International Blue Cooperative <i>open to all registered delegates and potential members</i></p>  <p>- Introduction : Pierre Rousseau, Senior Strategic Sustainable Business advisor, BNP Paribas Developing collaborative financing schemes to leverage private finance for public good by mobilizing capital markets to finance projects with deep environmental and social impacts to scale them, to de-risk them and to optimize their funding. It will mix then private, public and philanthropic funds to maximize some environmental and social impact to be clearly measure without jeopardizing the adjusted risk-return profitability.</p> <p>- Presentation of the International Blue Cooperative : <i>Antoine Erwes</i>, BioMarine, Project Manager</p> <p>- Panel Discussion : Pierre Erwes, Chairman BioMarine How Industry can engage with the International Blue Cooperative ? <i>Delia Simental</i>, Pacific Biocultures, Mexico, <i>Kimberly Buffitt</i>, Director, Coop Solidarité Bioproduits, Canada <i>Justin Sternberg</i>, Director Alaska Ocean Cluster, USA <i>Juan Ramon Rodriguez</i>, project manager Bioasis, Spain</p> |
| 12:00 – 14:00 | <p>Networking lunch - Sala Cascais, Miragem Restaurant</p>  |

14h-17h : Mind the gap !

Specialists and participating actors from different backgrounds of the blue economy will get together to discuss and propose systemic strategies to tackle the identified issues through an interactive and participatory approach :

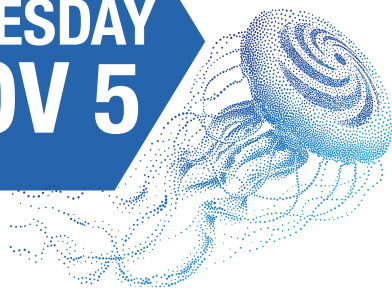
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| 14:00 - 15:00 | Research and Blue Innovation Chair : Louise Menager, Makesense, France <i>Vitor Vasconcelos</i> , President of the Board CIIMAR, Portugal <i>Susan Marshall</i> , Science Group Leader, Plant and Food Research, New Zealand <i>Francisco Solis-Marin</i> , UNAM · Institute of Ocean Sciences and Limnology, Mexico <i>Thalia Arvaniti</i> , Program Manager, SUBMARINER Network for Blue Growth EEIG, Germany |
| 15:00 - 17:00 | Blue Ingredients for cutting edge innovation Chair : Louise Menager, Makesense, France Worms & Micro Algae : <i>Xavier Bailly</i> , Functional Explorator in Marine Model Organisms, France Jelly Fishes : <i>Andrew Mearns Spragg</i> , Founder & Chief Scientific Officer, Jellagen, UK Sea Cucumbers : <i>Delia Simental</i> , Pacific Biocultures, Mexico Lobsters : <i>Sebastien Ferraz</i> , CTO, Lagosta, Monaco Fish Scales : <i>Erik de Laurens</i> , Founder and CTO, ScaleVision, France |
| 17:00 - 17:30 | Networking Coffee Break |
| 17:30 | Opening Plenary Chair : Joana Balsemao, Executive Counselor for environment, Cascais Municipality <i>Carlos Carreiras</i> , President Câmara Municipal de Cascais <i>Caroline McMillen</i> , Chief Scientist, Governement of South Australia <i>Bris Rocher</i> , Chairman and CEO of Rocher Group, France <i>Craig Fleener</i> , Executive Director of the Alaska Ocean Cluster, USA |
| 20:00 | Welcome words and Gala Dinner hosted by Cascais Municipality (Hotel Miragem) CASCAIS |



#Biomarine #Biomarine2019

PROGRAM

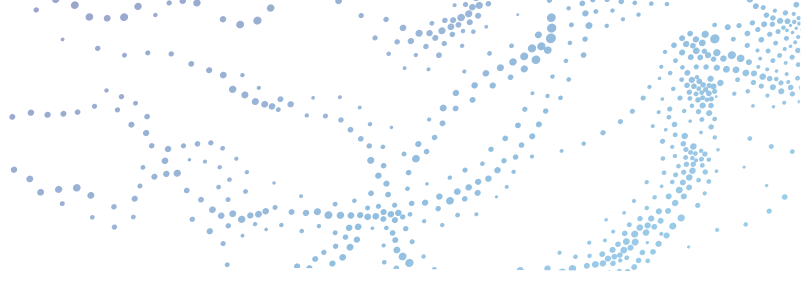
**THUESDAY
NOV 5**



■ SALA 1
■ SALA 2

■ SALA 7
■ SALA 10

| | |
|----------------------|--|
| 08:30 | BioMarine delegates... Pick up your badge ! |
| 09:00-19:00 | Track 1 : One-to-one pre scheduled meetings |
| | Track 2 : BioMarine sessions |
| | Track 3 : CEO BrainStorming <i>1 hot topic, 1 hour and 4 selected CEOs ready to collaborate and engage</i> |
| 08:30 - 09:00 | Good Morning BioMarine : Cleaning the issue of microplastics : Interviewer : Ana Ferreira, BioMarine Portugal <i>Jana Garous, CEO Micro Catch, Portugal</i> |
| 09:00 – 10:00 | PANEL : Will algae and seaweed replace protein in the feed and food industry ? Alternative protein sources are constantly explored to secure the future food and protein demand. Among these sources, biomasses originating from algae. As seaweed and micro algae represent a very sustainable source of protein, we could use them as a source of protein for feed and human consumption. What are the bottlenecks and what could we expect both for feed and human nutrition? Moderator : Alexandra Mosch, VP European Biomass Association, Germany <i>Renato Costa, Global Sales and Marketing, Lonza, Portugal</i> <i>Ann Ruddy, CEO Wild Atlantic Seagarden, Ireland</i> <i>Keith Coleman, CEO, SuSeWi, UK</i> |
| 09:00 – 10:00 | CEO BrainStorming 1 : Removal of microplastics from waste-water effluents |
| 10:00 – 10:30 | DEBATE : Climate and Blue bonds: what are they and how can they help the ocean ? Climate & Blue bonds are an innovative financing instrument whereby funds raised are exclusively for projects deemed carbon and ocean-friendly. Climate Seed has already paved the way along with one of the largest and most active bank in the field. What is at stake and what can we expect? Moderator : Laurent Smolen, Executive Director, Olkad, Luxemburg <i>Sebastien Nunes, CEO, ClimateSeed, France</i> <i>Claire Iversenc, Head of Sustainability - Corporate Coverage EMEA, BNP Paribas, France</i> |
| 10:30 – 11:00 | Networking Coffee Break |
| 11:00 – 12:00 | PANEL: How to foster global R&D and industry partnerships ? SMEs are subject to constraints in internal resources including capital, human resources and knowledge due to small size. Moreover, access to external resources is limited as well due to market failures. Thus, SMEs have disadvantages in R&D and innovation compared to larger firms. In order to overcome these gaps with large firms SMEs must think different and develop new collaborative approaches with large industry players. The session will explore some of the possible ways... Moderator : Ana Ferreira, BioMarine, Portugal <i>Vincent Nida, Deputy CEO, Groupe Rocher, France</i> <i>Maarit Rein, Open Innovation - Incubation & Venturing, Nestlé Research, Switzerland</i> <i>Jan Theulen, Director Alternative Resources, Global Environmental Sustainability Heidelberg Cement, Netherlands</i> <i>Wei Zhang, Founding Director Flinders center for Marine Bioproducts development - President ANZMBS, Australia</i> |



| | |
|---------------|---|
| 11:00 – 12:00 | CEO BrainStorming 2: Bioenergies from algae |
| 12:00 – 12:15 | <p>KeyNote <i>Haitze Siemers</i>, Head of Unit “New energy technologies & innovation” DG Energy, European Commission, Belgium</p> |
| 12:15 – 14:00 | <p>Networking Lunch - Sala Cascais, Miragem Restaurant</p>  |
| 14:00 – 14:30 | <p>DEBATE : Cellular agriculture for plants and animals</p> <p>The production of drugs, cosmetics, and food which are derived from plant cell and tissue cultures has a long tradition. The emerging trend of manufacturing cosmetics and food products in a natural and sustainable manner has brought a new wave in plant cell culture technology over the past 10 years. Many products based on extracts from plant cell cultures have made their way into the cosmetics industry during this time, whereby the majority is produced with plant cell suspension cultures. In addition, the plant cell culture-based food supplement ingredients will soon be produced at production scale. We will discuss the reasons for as well as the challenges of plant cell culture-based productions for the cosmetics and food industries.</p> <p>Moderator : Pierre Erwes, Chairman BioMarine <i>Mark Jarvis</i>, Business Manager, The New Zealand Institute for Plant and Food Research, New Zealand <i>Jerome Loeuil</i>, Development & Marketing at BiotechMarine(SEPPIC), France</p> |
| 14:30 – 15:30 | <p>PANEL : The growing role of marine ingredients in cosmeceuticals and nutrition</p> <p>Although the use of marine ingredients in cosmeceuticals is not a novel concept, new R&D efforts are broadening their function and purpose in beauty applications such as nutricosmetics, anti-aging, inflammatory skin conditions and more. The main issue for future development will be sustainable development and ethical sourcing. marine ingredients are exposed to the same issues we see in food, but in smaller volumes. Efforts are done to find new ways to cultivate algae, and low trophic species such as cucumbers, other echinoderms and sponges, and preserving as much of the natural ecosystem. The session will discuss the recent development but also the consumer acceptance.</p> <p>Moderator : Ragnhild Whitaker, Research Director Marine Biotechnology, Nofima, Norway <i>Christine Garcia</i>, Director of Development and Innovation Unit for Cosmetic and Nutrition Active Ingredients, SEPPIC , France <i>Lilja Kjalarsdottir</i>, COO, Saga Natura , Iceland <i>Sebastien Duprat de Paule</i>, Innovation Director – Natural Ingredients – Rocher Groupe, France</p> |
| 15:30 - 16:00 | Networking Coffee Break |
| 16:00 – 17:00 | <p>PANEL: Will BioPlastics turn blue ?</p> <p>The rising tide of bioplastics as a whole underscores unique ways to sequester carbon, transition from petroleum-based plastics, and create new products from natural ingredients and / or waste. In all likelihood, responsible application of bioplastics in packaging and elsewhere will continue to lower cost and increase efficiency of production, catalyzing the transition to fossil-free packaging. The seaweed's fibers could be used to create a new generation of biodegradable plastic. It all comes down to the plant's complex glycan sugars. The question is will bioplastic turn blue?</p> <p>Moderator: Maria Stewart, Plastic Innovation Competence Center, Switzerland <i>Robert Witik</i>, Senior Specialist Sustainability & packaging Material science, Nestlé, Switzerland <i>Nasser Kahil</i>, Group Quality, Security & Sustainability Director, Lyreco, France <i>Rudolf Koopmans</i>, Director ,Plastics Innovation Competence Center, Switzerland <i>Guy Viel</i>, CEO, CRBM, Canada</p> |

| | |
|-----------------------------|---|
| <p>17:00 – 18:30</p> | <p>PANEL : Financing the Bioeconomy</p> <p>The blue bio economy is booming but how can we finance the gap between early stage and seed funding which is well covered and the growing stage? The EU vehicles are numerous and quite efficient but most of the project are not reaching the market due to a huge collapse after the public funding stage. The Private Equity sector does not have the background on this emerging sector and is quite reluctant to jump in. Impact is definitely adequate for developing countries aquaculture projects. Evergreen fund would be more appropriate to foster the development of our blue bio industry. Corporate venture funds could also play a growing role while investing directly in the blue bio economy. The workshop will discuss the many possibilities and the importance of having a global scouting platform.</p> <p>Moderator : Suzanne Fraser, Investment Attraction Executive, Life Sciences & Clean Technology, Nova Scotia Business Inc., Canada <i>Abdou Bensouda, CEO FinanceCom International, Morocco</i> <i>Isabelle de Cremoux, Seventure, France</i> <i>Pierre Rousseau, Strategic Advisor Sustainable Business, BNP PARIBAS, Portugal</i> <i>Claire Goudet, Deputy CEO, Rocher Participations, France</i> <i>Israel Pons, CEO, Angel Nest Global, Mexico</i> <i>Regina Hecker, Principal, Blue Horizon, Switzerland</i></p> |
| <p>18:30 – 18:45</p> | <p>Closing remarks : <i>Andreea Strachinescu, Head of Unit for Maritime Innovation, Marine Knowledge and Investment, European Commission, Directorate-General for Maritime Affairs and Fisheries, EU</i></p> |
| <p>18:45 – 19:30</p> | <p>Farewell networking cocktail - Oasis Terrace, Miragem</p> |

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BIOMARINE EVENT**



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OCEANS INNOVATION DAY

Sustainability from ocean bio-resources

A one-day conference on the latest developments & innovations in marine resources

**December 4th, 2020
2m2c Convention Centre
Miles Davis Hall
Montreux, Switzerland**

Introduction to MARISTEM - stem cells of marine/aquatic invertebrates: from basic research to innovative applications

Ana Varela Coelho

Instituto de Tecnologia Química e Biológica António Xavier, Universidade NOVA de Lisboa, Lisboa. Portugal

Marine/aquatic invertebrates constitute the largest biodiversity and the widest phylogenetic radiation on Earth, from morphologically simple organisms (e.g., sponges, cnidarians), to the more complex mollusks, crustaceans, echinoderms, and protochordates. Today, adult marine/aquatic invertebrate stem cell (MISC) biology is of prime research and medical interest. However, studies on stem cells from organisms outside the classical vertebrate (e.g., human, mouse, and zebrafish) and invertebrate (e.g., *Drosophila*, *Caenorhabditis*) models have not been pursued vigorously. These organisms contain a variety of MISC-types that allow the production of a large number of novel bioactive-molecules, many of which are of significant potential interest for human health. MISCs further participate in aging and regeneration phenomena, including whole-body regeneration.

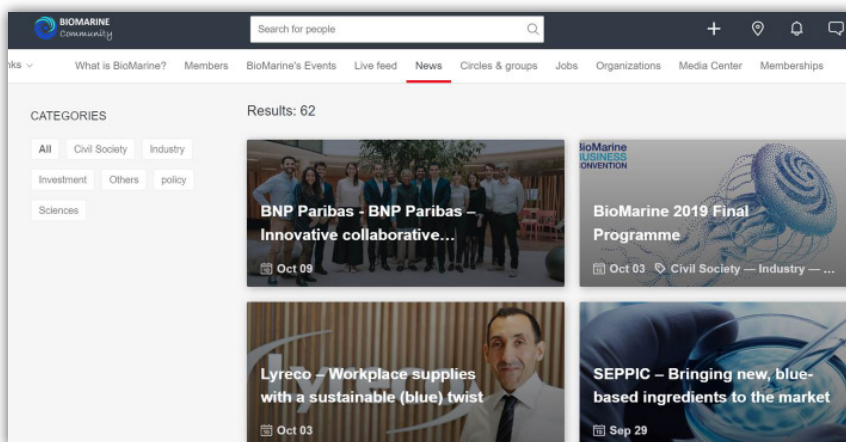
For years, the European MISC-community has been highly fragmented and has established scarce ties with biomedical industries in an attempt to harness MISCs for human welfare. Thus, it is important to (i) consolidate the European community of researchers working on MISCs; (ii) promote and coordinate European research on MISC biology; (iii) stimulate young researchers to embark on research in MISC-biology; (iv) develop, validate, and share novel MISC tools and methodologies; (v) establish the MISC discipline as a forefront interest of biomedical disciplines, including nanobiomedicine and (vi) establish collaborations with industries to exploit MISCs as sources of bioactive molecules.

In order to fill the recognized gaps, the EC-COST Action 16203 "MARISTEM" has recently been launched. At its initial stage, the consortium unites scientists from 24 EC countries, Cooperating countries, and Near Neighbor Countries. Today the Action includes 28 countries and 40 Institutions.

FOLLOW US AND NEXT EVENTS

Follow our events and workshops on our online BioMarine Community ! Sign-up for free as regular member and be part of this global network of 6000+ members

<https://biomarine.org>



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