



## The challenge

Adriatic mariculture provides highly valued fish products for both local and distant markets. This sector can further develop thanks to new available technologies and stronger information for consumers. The sector can offer high qualification job opportunities and boost local economy.

## The team

Within **AdriAquaNet** project, **4 industries, 1 consortium** and **6 research laboratories** from both **Italy** and **Croatia** are teaming up to develop and apply technologies for fish farming and marketing. This is the first ever initiative for improving the quality of fish farming and marketing by cooperation between both sides of the Adriatic Sea.

## Project Partner 6

# CNR - Department of Chemical Science and Material Technology Institute of Biomolecular Chemistry

[www.icb.cnr.it](http://www.icb.cnr.it)

### THE TEAM

### EXPERTISE

- |   |  |
|---|--|
| <p><b>A</b> <b>Genoveffa Nuzzo</b>, PhD, ICB-Napoli<br/><i>Communication manager</i></p>  | <p>→ Isolation and structure elucidation of active marine natural products.</p>        |
| <p><b>B</b> <b>Angelo Fontana</b>, PhD, ICB-Napoli<br/><i>R&amp;D in genetics of fish wellness</i></p>                            | <p>→ Bio-organic chemistry, R&amp;D of natural products and marine drug discovery.</p> |
| <p><b>C</b> <b>Giuliana d'Ippolito</b>, PhD, ICB-Napoli<br/><i>Financial manager and Scientific Coordinator of ICB-Napoli</i></p> | <p>→ Marine biotechnology, Bio-based processes.</p>                                    |
| <p><b>D</b> <b>Paolo Ruzza</b>, ICB-Padova<br/><i>Scientific Coordinator of ICB-Padova</i></p>                                    | <p>→ Peptide chemistry, organic synthesis and protein interactions.</p>                |
| <p><b>E</b> <b>Claudia Honish</b>, PhD student, ICB-Padova</p>  | <p>→ Synthesis of bioactive peptide using the solid phase approach.</p>                |
| <p><b>F</b> <b>Lisa Bisacco</b>, ICB-Padova<br/><i>Financial administration and reporting</i></p>                                 | <p>→ Financial administration and reporting.</p>                                       |



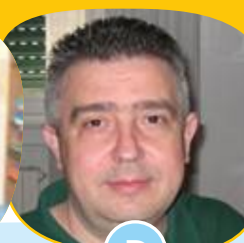
A



B



C



D



E



F

## Roles in AdriAquaNet

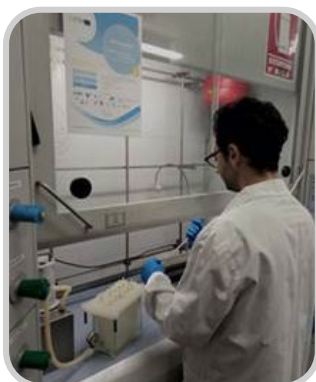
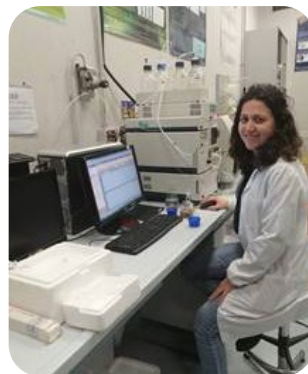
*Discovery and development of new marine compounds as natural antibiotics and immunostimulatory products in farmed fish.*

*Development of natural and synthetic peptides from natural antimicrobial peptides.*

## Lab 1 – Marine Natural Products

Leader: *Giuliana d'Ippolito*

- Exploitation of marine natural products for their antibacterial-antiparasitic activity to improve health and sustainability in aquaculture.
- Fractionation of active natural compounds by SPE/HPLC methods and chemical identification of therapeutic substances by spectroscopic and spectrometer techniques.



## Lab 2 – Peptide synthesis

Leader: *Paolo Ruzza*

- Synthesis of anti-microbial peptides (AMPs) derived from *Thynnin* (thuna protamine) and the full-length Salmon protamine.
- Product purification by RP-HPLC and determination of the peptide purity

## PARTNERSHIP

### RESEARCH INSTITUTES

**LP** UNIVERSITY OF UDINE  
Dept. of Agricultural, Food, Environmental and Animal Sciences

**PP1** CROATIAN VETERINARY INSTITUTE

**PP2** UNIVERSITY OF TRIESTE – Dept. of Life Sciences

**PP3** INSTITUTE OF OCEANOGRAPHY AND FISHERIES

**PP4** ISTITUTO ZOOPROFILATICO SPERIMENTALE DELLE VENEZIE

**PP5** UNIVERSITY OF RIJEKA  
Faculty of Tourism and Hospitality Management

**PP6** NATIONAL RESEARCH COUNCIL OF ITALY  
Institute of Biomolecular Chemistry (ICB)

### CONSORTIUM

**PP7** KLAS TER MARIKULTURA

### SMEs

**PP8** FRIŠKINA Ltd

**PP9** ITTICA CALDOLI SARL -POGGIO IMPERIALE

**PP10** ORADA ADRIATIC Ltd

**PP11** FRIULTROTA DI PIGHIN Ltd

## PRIORITY

Blue Innovation

## DURATION

01.01.2019 - 30.06.2022

## COORDINATOR

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## FUNDING

€ 2.740.408,13

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## PP6 SHARE

€ 246.965,00



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European Regional Development Fund

[www.italy-croatia.eu/AdriAquaNet](http://www.italy-croatia.eu/AdriAquaNet)