

PARTNER IDENTIFICATION FORM - HORIZON-CL6-2026-01-CIRCBIO-11	
PIC	999995602
Full legal name	Università degli Studi di Padova ( <b>Dipartimento di Biomedicina Comparata e Alimentazione</b> )
Legal name in EN	University of Padua ( <b>Department of Comparative Biomedicine and Food Science</b> )
Acronym	UNIPD
Department	Dipartimento di Biomedicina Comparata e Alimentazione (BCA)
Address	Viale dell'Università, 16
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Country	Italy
Region	Veneto
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City	Legnaro, Padova
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PROFILE	
Type of Organisation	Higher or secondary education establishment
Is the partner organisation a public body?	Yes
Is the partner organisation a non-profit?	Yes
BACKGROUND AND EXPERIENCE	
Please briefly present the partner organization	The Department of Comparative Biomedicine and Food Science (BCA) is the department of the University of Padova that pursues excellence in research and teaching in all disciplines related to <b>veterinary medicine, comparative animal science and food safety</b> . Today, BCA is a flourishing department, rich in ideas and

	<p>specific expertise that has 51 active professors (2022). BCA supports scientific projects integrated with specific needs of the territory, promoting technological transfer of the obtained results. It develops relationships with the business community, public and professional associations.</p>
<p>Fields of research and topics of interest of the organization</p>	<p>With particular reference to the call <b>HORIZON-CL6-2026-01-CIRCBIO-11</b>, the research activities involve a multidisciplinary team.</p> <p>The <b>research activities</b> focus on the biological and biochemical characterization of natural bioactive molecules, particularly those derived from sustainable sources such as food by-products.</p> <p><b>Core expertise</b> includes the functional assessment of complex biomolecules, the study of their biochemical properties, and the development of experimental models to evaluate biologically relevant activities in complex systems.</p> <p>Additional strengths include <b>the evaluation of growth performance in aquaculture species</b> using morphological and molecular techniques, as well as the <b>assessment of animal welfare</b> through stress-related indicators.</p> <p>A further research line involves the <b>valorization of sea urchin shell waste</b> for potential biomedical and nutraceutical applications, demonstrating strong capabilities in extracting, analyzing and repurposing marine-derived bioactive compounds.</p> <p>The ongoing project on the valorization of commercial sea urchin waste already aligns with several objectives of the call, particularly the use of marine organisms and by-products to develop sustainable bio-based solutions.</p> <p>Knowledge areas and targets of interest include:</p> <ul style="list-style-type: none"> <li>• Exploiting the unique biological properties of marine organisms to develop bio-based, eco-friendly products.</li> <li>• Functional screening and characterization of bioactive marine-derived molecules and natural additives.</li> </ul> <p>The team can provide <b>advanced biological and biochemical screening</b> to support selection, optimization and industrial valorization processes. This includes the functional assessment of natural biomolecules intended to replace synthetic or potentially hazardous substances.</p>
<p>What are the skills and expertise of key staff/persons of the organization?</p>	<p><u>Regarding the call:</u></p> <p>The group offers advanced expertise in <b>cell and molecular biology</b> applied to the <b>functional characterization of natural biomolecules</b>. Competences include:</p> <ul style="list-style-type: none"> <li>• 2D and 3D cell culture systems.</li> <li>• Proteomic analyses and biochemical assays.</li> <li>• Development and optimization of assays for oxidative stress and other functional parameters in complex biological systems.</li> </ul> <p>These capabilities support high-level screening, selection, and optimization of bio-based molecules and formulations, contributing robust scientific evidence to product development pipelines.</p>

	<p><u>More in general:</u></p> <ul style="list-style-type: none"> <li>• 51 professors and researchers, 35 technicians and administrative employees,</li> <li>• At the moment, involved in 5 UE projects and 12 national/regional projects (ongoing). It has also signed 22 grant agreements for commissioned research activities with private and public bodies (ongoing).</li> <li>• The average number of publications in the period 2017-2021 has been 181 publications per year;</li> <li>• Centre of excellence for aquatic animal health research;</li> <li>• 3 patents in nanotechnology and biosensors, a direct drug patent to the treatment of diseases of the skeletal muscle, and finally a system of living cells of marine mammals for studies of cell biology, toxicological test and application for large-scale research.</li> <li>• ive patents in nanotechnology and biosensors, a direct drug patent to the treatment of diseases of the skeletal muscle and finally a system and method for cognitive assessment and training of an animal.</li> <li>• 2 spin-offs: a system and method for cognitive assessment and training of an animal and a development of products, materials, devices and processes based on nanoparticles.</li> </ul>	
CONTACT PERSONS		
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European Union granted projects		
Programme	Year	Project identification
Horizon Europe	2022	<a href="#">FishEUTrust: Building trust in EU fish supply chains</a>
Horizon Europe	2022	<a href="#">Improving Green Innovation for the Blue Revolution</a>
H2020	2020	<a href="#">Improving biosecurity compliance in poultry farms</a>
H2020	2019	<a href="#">Advancing European Aquaculture by Genome Functional Annotation</a>
LIFE	2019	<a href="#">LIFE DELFI</a>
H2020	2017	<a href="#">Integrating Innovative Approaches for Competitive and Sustainable Performance across the Mediterranean Aquaculture Value Chain -</a>
H2020	2016	<a href="#">Preventing and Mitigating farmed Bivalve Diseases</a>