H2OPE: Advancing Ocean-Human Health interactions through transdisciplinary research

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Epidemiological studies have demonstrated that living near blue spaces is associated with enhanced well-being, with marine and coastal environments offering a unique combination of physical, psychological, nutritional, and social advantages to human health. Moreover, oceans play a crucial role in addressing global challenges: they contribute to food security through fisheries and aquaculture, regulate climate, and serve as a source of novel pharmaceuticals and therapeutic applications. Despite this growing evidence of their importance, the complex interactions between oceans and human health remain understudied. Moreover, these ecosystems are under significant stress due to climate change, population growth, environmental degradation, economic inequality, supply chain disruptions, food waste, water scarcity, and technological challenges. The complexity of these challenges demands a more holistic approach. By transcending disciplinary boundaries, transdisciplinary collaboration can uncover deeper insights and deliver more impactful solutions.

Therefore, the H2OPE initiative brings together partners from Ghent University (BE), University of Groningen (NL), University of Galway (IE) and University of Basque Country (ES), each mobilizing regional stakeholder hubs to collaboratively address challenges related to oceans and human health. By integrating humanities, biological sciences, food sciences, nutritional sciences, and social sciences, H2OPE will explore these complex oceans and human health interactions. By developing innovative research methodologies and educational tools, like thematic workshops, a summer school, and collaborative engagement with stakeholders, the H2OPE thematic network offers researchers and students a platform for transdisciplinary learning, while creating accessible content for the public, policymakers, and healthcare professionals. By empowering individuals and communities to take action in protecting ocean health, H2OPE seeks to drive evidence-based policies that simultaneously safeguard ocean ecosystems and enhance human well-being.

Keywords
One Health, Stakeholder Engagement, Marine Ecosystems, Human Health, Wellbeing