Nathalie Bourgougnon, Director of Laboratory of Marine Biotechnology and Chemistry
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Grade: PR Section CNU Cl ex 1: CNU 66

Assignment Institution: University of South Brittany
Laboratory of Marine Biotechnology and Chemistry
Doctoral School: Doctoral School in Marine and Coastal Sciences

Qualifications
1994 PhD: Faculty of Pharmacy, University of Nantes, Institute of Research on the Substances and Organizations of the Sea (ISOMer) under the direction of Professor Jean-Michel KORNPROBST: *Antiviral activity and antiproliferative of the sulphated polysaccharide of Schizymenia dubyi (Rhodophytes, Gigartinales),*
2000 : Habilitated to supervise PhD students (HDR) in Marine Biology "Marine Substances with biological activities", University of La Rochelle.

Scientific skills
- Physiology of seaweeds cell wall : extraction, characterization of seaweeds cell wall, analysis of biochemical composition
- Marine Seaweed Biotechnology and biochemistry : extraction and purification of biological compounds by eco-friendly processes (EAE…)
- Evaluation of biological activities : antiviral, antifouling, antibacteria, cosmetic activities *in vitro*

Teaching activities
Plant et Physiology Biology, Plant and Marine Biotechnology from the licence to the master level.

Administrative duties
Director of the Laboratory

Examples of scientific production
Stiger-Pouvreau V, Bourgougnon N, Deslandes E. (2016) Chapitre Eight Carbohydrates from seaweeds. In: Seaweed in Health and Disease Prevention, Fleurence J, Levine I (Eds). Elsevier. eBook ISBN : 9780128027936

Bedoux G., Bourgougnon N. 2015. Bioactivity of secondary metabolites from macroalgae. Cellular Origins, Life in Extreme Habitats and Astrobiology. Editors Sahoo D. & Seckbach J. - Ed. Springer. ISSN: 1566-0400

Kevin Hardouin Gilles Bedoux, Anne-Sophie Burlot, Claire Donnay-Moreno, Jean-Pascal Bergé, Pi Nyvall-Collén, Nathalie Bourgougnon (2016). Enzyme-assisted extraction (EAE) for the production of antiviral and antioxidant extracts from the green seaweed Ulva armoricana (Ulvales, Ulvophyceae). Algal Research 16 (2016) 233–239

Burlot Anne-Sophie, Bedoux Gilles and Bourgougnon Nathalie (2016). Response Surface Methodology for Enzyme-Assisted Extraction of Water-Soluble Antiviral Compounds from the Proliferative Macroalga Solieria chordalis. Enzyme Engineering. 5:2 DOI: 10.4172/2329-6674.1000148

Romain Boulho, Christel Marty, Yolanda Freile-Pelegrín, Daniel Robledo, Nathalie Bourgougnon and Gilles Bedoux. Antiherpetic (HSV-1) activity of carrageenans from the red seaweed Solieria chordalis (Rhodophyta, Gigartinales) extracted by Microwave Assisted Extraction (MAE) Journal Applied Phycology, 1-10

Romain Boulho, Julie Le Roux, Céline Le Quémener, Grégoire Audo, Nathalie Bourgougnon and Gilles Bedoux. (2017) Isolation of anti-UVB and antioxidant compounds from Solieria chordalis by using Centrifugal Partition Chromatography. Phytochemistry Letters. https://doi.org/10.1016/j.phytol.2017.03.010

Isuru Wijesekara, Marie Lang, Christel Marty, Marin-Pierre Gemin; Romain Boulho, Philippe Douzenel Gilles Bedoux, Nathalie Bourgougnon (2017). Different extraction procedures and analysis of protein from Ulva sp. in Brittany, France. Journal Applied Phycology, 1-9

Kevin Hardouin, Gilles Bedoux, Anne-Sophie Burlot, Pi Nyvall-Collen, Nathalie Bourgougnon (2014). Enzymatic recovery of metabolites from seaweeds: potential applications. *Advance Botanical research,* Volume 71, Pages 279-320.

Bouhlal R, Haslin C, Chermann JC, Colliec-Jouault S, Sinquin C, Simon G, Cerantola S, Riadi H, and Bourgougnon N. (2011). Antiviral activities of sulfated polysaccharides isolated from *Sphaerococcus coronopifolius* (*Rhodophytha*, *Gigartinales*) and *Boergeseniella thuyoides* (*Rhodophyta*, *Ceramiales*). *Marine Drugs* 7, 1187-1209.

Bazes, A. Silkina, D. Defer, E. Quéméner, JP Braud, and N. Bourgougnon (2006). Allelopathic substances from *Ceramium botryocarpum* used as antifouling products. *Aquaculture*, 258, 664-674.

C. Olicard, T. Renault, C. Torhy, A. Benmansour and N. Bourgougnon (2005). Putative antiviral activity in haemolymph from adult Pacific oysters, *Crassostrea gigas*. *Antiviral research*, 66, 147-152.