

**Research Lecturer in analytical chemistry – Natural products - Seaweeds**

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PhD in Life sciences (2005), Université de Bretagne-Sud

“Structural analysis of *Pseudomonas aeruginosa* serogroup O5 lipopolysaccharide”

Vice President in charge of “academic innovation and digital” - University South Brittany

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**Current position**

- **Research Lecturer** (Maître de Conférences) – CNU 31 – Analytical chemistry  
Faculty of Sciences and Engineering Sciences (UFR SSI)  
Research Lab : Marine Biotechnology and Chemistry Lab (LBCM)  
Assignment Institution: University South Brittany (Université Bretagne Sud)

**Scientific skills and research activities**

- **Analytical chemistry** : Structural analysis of seaweed metabolites – biological activities  
chemical structure–biological function relationships & extraction process impact
- **Chemical characterization of polysaccharides isolated from various organisms**: Lipopolysaccharide, Polysaccharide and Oligosaccharide, proteins and peptides
- **Analytical methods** : Extraction & fractionation - concentration - Chromatography – HPLC – HPAEC – HPSEC – CPC – Mass spectrometry – NMR

**Teaching activities**

- **Analytical chemistry** : general chemistry and chromatography – Formulation of cosmetics

**Award and Grants**

- **Research Allowance PEDR A**
- **Project coordinator**: Project EVHELCAAP Collaborative Project of Brittany - France (2016-2018) French company BIOARMOR ; PROCESSALG (2014-2017) (ARED thesis) Collaborative Project with three french companies
- **International Project partner** : ECOS NORD Mexico (2015-2018) "Up grading of macroalgae by combining innovative biotechnologies and process for human health"
- **National Project partner** : Project OSEO ISI ULVANS "Enzymatic hydrolysis of marine invasive seaweeds and upgrading in human animal and vegetal health" ; Project FUI VALORALG "Enzymatic hydrolysis of marine invasive seaweeds for upgrading in human, animal and vegetal health, cosmetics"

**ACL 1. Bedoux, G.**, Caamal-Fuentes, E., Boulho, R., Marty, C., Bourgougnon, N., Freile-Pelegrín, Y., Robledo, D. 2017. Antiviral and cytotoxic activities of polysaccharides extracted from four tropical seaweed species. *Natural Product Communications*, 12: 807-811.

**ACL 2.** Boulho, R., Marty, C., Freile-Pelegrín, Y., Robledo, D., Bourgougnon, N., **Bedoux, G.** 2017. Antiherpetic (HSV-1) activity of carrageenans from the red seaweed *Solieria chordalis* (Rhodophyta, Gigartinales) extracted by Microwave Assisted Extraction (MAE). *J. Appl. Phycol.* 29 : 2219–2228.

**ACL 3.** Boulho, R., Le Roux, J., Le Quémener, C., Audo, G., Bourgougnon, N., **Bedoux, G.** 2017. Fractionation of UV-B absorbing molecules and of free radical scavenging compounds from *Solieria chordalis* by using Centrifugal Partition Chromatography. *Phytochem. Lett.*, <http://dx.doi.org/10.1016/j.phytol.2017.03.010>.

**ACL 4.** Terme, N., Boulho, R., Kendel, M., Kucma, J.P., Wielgosz-Collin, G., Bourgougnon, N., **Bedoux, G.** 2017. Selective extraction of lipid classes from *Solieria chordalis* and *Sargassum muticum* using supercritical carbon dioxide and conventional solid-liquid methods. *J. Appl. Phycol.*, 29: 2513–2519.

**ACL 5.** Wijesekara, I., Lang, M., Marty, C., Gemin, M.P., Boulho, R., Douzenel, P., **Bedoux, G.**, Bourgougnon, N. 2017. Different extraction procedures and analysis of protein from *Ulva* sp. in Brittany, France. *J. Appl. Phycol.*, 29: 2503–2511.

**ACL 6.** Hardouin K., **Bedoux G.**, Burlot A.S., Donnay-Moreno C., Bergé J.P., Nyvall-Collén P., Bourgougnon N., 2016. Enzyme-Assisted Extraction for the production of bioactive extracts from the green seaweed *Ulva armoricana*. *Algal Res.*, 16: 233–239.

**ACL 7.** Kendel, M., Wielgosz-Collin, G., Bertrand, S., Roussakis, C., Bourgougnon, N., **Bedoux, G.** 2015. Lipid composition, fatty acids and sterols in the seaweeds *Ulva armoricana*, and *Solieria chordalis* from Brittany (France): an analysis from nutritional, chemotaxonomic, and antiproliferative activity perspectives. *Mar. Drugs*, 13: 5606-5628.

**ACL 8.** **Bedoux, G.**, Hardouin, K., Marty, C., Taupin, L., Vandanson, L., Bourgougnon, N., 2014. Chemical characterization and photoprotective activity measurement of extracts from the red macroalgae *Solieria chordalis*. *Bot. Mar.*, 57: 291 – 301.