



Imen Hmani

Email : imen.hmani@unifg.it

Education

PhD in Biological Sciences. Faculty of Sciences of Tunis. Tunis El Manar University. Very Honorable, with Committee Praise. **2024.**

Master's Degree in Agriculture Sciences: Biotechnological Valuation of Marine Resources. National Agronomic Institute of Tunisia. Carthage University. Very good. **2016.**

Master's degree in Biology: Functional Biology and Plant Productivity. Faculty of Sciences of Tunis. Tunis El Manar University. **2015.**

Bachelor degree in Environmental Sciences: Valorization of Bio-Resources and Sustainable Development. Faculty of Sciences of Tunis. Tunis El Manar University. **2012.**

Highschool diploma in Experimental Sciences. Mourouj I High school. **2008.**

Language

Mother tongue: **Arabic**

Other languages: **French:** B2: reading, writing, spoken; **English:** B2: reading, writing, spoken; **German:** A2: reading, writing, spoken

Work experience

(i) PostDoc STAR*Facility Centre – University of Foggia (Italy), **01/06/2025–present;** **(ii) PostDoc:** Møreforsking Ålesund (Norway), **17/04/2024-17/06/2024;** **(iii) University internship:** Institute of Inorganic and Analytical Chemistry. Friedrich Schiller University Jena (Germany), **15/09/2020 – 07/03/2021;** **(vi) University internship:** Institute of Inorganic and Analytical Chemistry. Friedrich Schiller University Jena (Germany), **15/09/2019 – 15/12/2019;** **(v) University internship:** National Institute of Marine Sciences and Technologies (Tunisia), **01/02/2017 –13/12/2023;** **(vi) Master's research internship:** National Institute of Marine Sciences and Technologies (Tunisia), **01/03/2016 – 31/12/2016;** **(vii) Master's research internship:** National Institute of Marine Sciences and Technologies (Tunisia), **01/03/2014 – 31/12/2014;** **(viii) Bachlor's internship:** National Institute of Marine Sciences and Technologies (Tunisia), **01/02/2012 – 30/06/2012;** **(viii) Internship:** SAGEMCOM (Tunisia), **01/06/2010 – 30/06/2010.**

Techniques and methodology

(i) Culture, DNA metacoding and biochemical analysis of *Ulva*; **(ii)** Preparation of axenic cultures and control of the life cycle of *Ulva*; **(iii)** Algae-epibiont interaction and study of the metabolome by LC-MS; **(iv)** Organic extraction of antioxidant biomolecules; **(v)** Characterization and molecular identification of bacteria; **(vi)** Identification of algae: morphological, biochemical and molecular; **(vii)** algicidal, antifouling and antibacterial activities; **(viii)** Flow cytometry; **(ix)** Thin layer chromatography; **(x)** Culture, control and biochemical characterization of microalgae; **(xi)** Nanopore sequencing.

Publications as first author

Hmani, I., Ktari, L., Sadok, S., Wichard, T., El Bour, M. (2024). The Alien Species *Ulva ohnoi*: New Geographical Record from the Northern Coast of Tunisia, DNA Barcoding, Nutrient Analysis and Biological Activities. EMCEI 2022. Advances in Science, Technology & Innovation. doi:10.1007/978-3-031-51904-8_64. Conference paper.

Hmani, I., Ghaderiardakani, F., Ktari, L., El Bour, M., Wichard, T. (2023). High-temperature stress induces bacteria-specific adverse and reversible effects on *Ulva* (Chlorophyta) growth and its chemosphere in a reductionist model system. *Botanica Marina*. 2023:0053. doi :10.1515/bot-2023-0053. (Impact Factor 2,2).

Hmani, I., Ktari, L., Ismail, A., El Bour, M. (2023). Biotechnological potential of *Ulva ohnoi* epiphytic bacteria: enzyme production and antimicrobial activities. *Front. Mar. Sci.* 10:1042527. doi: 10.3389/fmars.2023.1042527. (Impact Factor 3,7).

Hmani, I., Ktari L., Ismail A., M'dallel, C., El Bour, M. (2021). Assessment of the antioxidant and antibacterial properties of red algae (Rhodophyta) from the north coast of Tunisia. *Euro-Mediterranean Journal for Environmental Integration* 6:13. doi: 10.1007/s41207-020-00222-7. (Impact Factor 2).

Hmani, I., Ktari L., Ismail A., M'dallel, C., El Bour, M. (2021). Mediterranean Seaweeds as Source of Bioactive Compounds: Case Study of Some Red Algae (Rhodophyta) from North Coast of Tunisia Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (2nd Edition). Book chapter.

Oral communications

I. Hmani, F. Ghaderiardakani, L. Ktari, M. El Bour, T. Wichard. Exploring the role of bacterial symbiosis in the secondary metabolite production of *Ulva compressa*: implications for stress adaptation and bioactive compound biosynthesis. International Symposium On Medicinal And Aromatic Plants- SIPAM-7. (Tunisia, April 2025).

I. Hmani, L. Ktari, S. Sadok, T. Wichard, M. El Bour. The alien species *U. ohnoi*: new geographical record from northern coast of Tunisia, DNA barcoding, nutrient analysis and biological activities. Euro-Mediterranean Conference for Environmental Integration, (Tunisia, November 2022).

I. Hmani, A. Zouari, W. Cherif, M. EL Bour, L. Chebil and L. Ktari. "Analyzing biofilms community structure and abundance by flow cytometry for antifouling tests". The 3 International Conference on Integrated Environmental Management for Sustainable Development (Tunisia, May, 2018).

I. Hmani, C. M'dallel, A. Ismail, M. El Bour and L. Ktari. "Study of the bioactive properties of red algae collected on the Tunisian coast". Scientific days of the National Agronomic Institute of Tunisia (Tunisia, May 2015).

Four posters, two of which are presented at international conferences.

Prize

Second best poster: I. Hmani, M. EL Bour, C. M'dallel, L. Ktari. « Antifouling properties of the brown alga *Taonia atomaria* ». International Congress on " Natural Products: From Plants to Medicaments and Bio-agriculture" (Tunisia, November 2018).

International training with scholarships

(i) GOOD-OARS Summer School (Malaysia) **04/11/2025-12/11/2025**; (ii) International Summer School of Blue Biotechnology (ISSBB) 2nd Edition (Italy), **01/10/2024-04/10/2024**; (iii) Resilient blue biorefinery technologies: innovative solutions for valorizing secondary fishing products (Norway), **24/10/2023-26/10/2023** BlueBio ERANET COFUND; (iv) Cultivation technologies for terrestrial and marine algae systems (Spain), **26/06/2023-29/06/2023** COST Action project; (v) Blue Bio-refinery technologies: from research to industry with applications on products and biomaterials from algal biomass and secondary products from fishing and aquaculture (Italy), **15/01/2023-18/01/2023** BlueBio COFUND; (vi) Eighth conference on microbial communication for young researchers (Germany), **29/03/2021-31/03/2021** supported by the Friedrich Schiller University Jena (Germany); (vii) Screening of cyanobacterial metabolites for their anti-virulence activity (Czech Republic), **08/07/2019-26/07/2019** partially funded by the algatech center in the Czech Republic; (viii) Expertise on marine flora and biodiversity (France), **03/07/2018-20/07/2018**.

National training

(i) Algae cultivation and biotechnology, **12/09/2023 – 18/09/2023**; (ii) Reveal the biotechnological potential of algae to contribute to sustainable blue growth in the Mediterranean. **28/09/2021**; (iii) Language courses in English. Bourguiba Institute of Modern Languages. **01/01/2018-31/12/2020**; (iv) Language courses in German. Bourguiba Institute of Modern Languages. **01/01/2017-31/12/2019**; (v) Web of science, Journal Citation Report and EndNote online. **12/04/2018**; (vi) Biosensor: principle and applications in environmental, agri-food and medical analysis (Tunisia). **22/03/2018-23/03/2018**; (vii) Level 1 of the LATEX Software. **11/03/2018**; (viii) Coastal risk and morphosedimentary dynamics of sand bodies at the mouth of the Mejerda River, Gulf of Tunis. **22/01/2018**; (ix) Introduction to GIS software. **23/01/2018**; (x) Introduction to experimental designs. **28/11/2017-30/11/2017**; (xi) Discover, read, cite, publish and get cited. **04/04/2017**; (xii) Web of Sciences and EndNote. **14/11/2016**; (xiii) The first theoretical and practical workshop on the genomics and meta-genomics of aquatic microorganisms. **20/06/2016-22/06/2016**; (xiv) Elsevier, Sciedirect, Scopus. **03/02/2016**; (xx) Awareness of quality and meteorology. **30/09/2015**.

Software used

(i) Microsoft Office; (ii) Graphic design (Canva); (iii) LC-MS analysis: MetaboAnalyst; (iv) phenogenetic analysis: MEGA 11; (v) Level 1 of the LATEX Software; (vi) EndNote; (viii) XCMS.

Social activities

Executive member in the International Society of Applied Phycology (ISAP) **2024-2027**

The ocean, future and global warming (Slovenia). Obtained a grant from the Scientific Committee for Ocean Research (SCOR). **06/2023**.

Tunisian Red Cross volunteer.

Volunteer at the Jeune Liberté association (charity).

Promotion of local heritage through the creation of tourist circuits in the mountains. Euro Mediterranean Campus (Tunisia).

08/2015.

Organization

Organizing member for the installation of an "algae" pavilion in the Salammbô museum, November **30, 2023**.

Organizing member of a training course on algae cultivation and biotechnology, September **12-16, 2023**.

Hobbies and interests

Sport and Hiking; creation and design of jewelry; travel and discovery.

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