

Géraldine LE GOFF



CNRS, ICSN

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Current position

Research Engineer CNRS, ICSN

Running projects

- **EU Projects:** TASC MAR (coordinator team, www.tascmar.eu), Microsmetics (partner, <http://www.microsmetics.eu>)
- **ANR Projects:** Migenis (partner), Herbifun (partner)
- **Industrial:** Ethnodyne (www.ethnodyne.com/fr)
- **Academic:** various worldwide collaborations (Spain, Germany, UK, Greece, Brazil, Thailand, Morocco ...)

Education

- **2012-2016** Post-doctoral fellowship, ICSN-CNRS, France
- **2012** PhD (Medicinal Chemistry and Microbiology), ICSN-CNRS, France
- **2009** Master (Natural Resources Valorization), Université de La Réunion, France

Education

- **Since 2017**, Lecturer (Biotechnology), Mines Paris-Tech, Paris, (France).

Fields of expertise

Dr. Géraldine LE GOFF is a CNRS¹ research engineer at Natural Product Chemistry Institute, ICSN (www.icsn.cnrs-gif.fr). ICSN benefit from a worldwide-recognition in the chemistry of natural compounds, including isolation, structure elucidation, bioassays and industrial valorization, from various natural bioresources (plants, marine organisms, microorganisms)

• **Since 2009, Specialist in Bioactive Microbial Secondary Metabolites.** The Pilot-Unit is a unique R&D structure in CNRS, equipped with up-to-date pilot scale facilities in the fields of fermentation, extraction and purification of small molecules and proteins. This structure is dedicated to the discovery of drugs from microorganisms. The team of the Pilot Unit develops new cultivation supports and metabolite trapping strategies and technologies, and is now considered as a reference in the field of solid-state cultivation and solid-phase extraction. Unique pilot-scale innovative instruments were invented and built offering an exceptional support for the discovery of new families and scaffolds of natural compounds (Platotex, Unifertex, Zippertex, Somartex). She is specialist in natural products structural elucidation (Geralcins family, Sporochartine family, Crambescins and crambescidins family). In partnership with indisputable experts, she initiated the total syntheses and the investigation of the biosynthetic gene clusters of particular families of natural compounds from actinomycetes (Geralcins)

Selected recent publications

¹ CNRS. National Center for Scientific Research, CNRS, France (<http://www.cnrs.fr/>)

- 1- P. Vlachou, **G. Le Goff**, C. Alonso, P. A. Álvarez, J-F. Gallard, Nikolas Fokialakis and Jamal Ouazzani; Innovative Approach to Sustainable Marine Invertebrate Chemistry and a Scale-Up Technology for Open Marine Ecosystems. *Mar. Drugs*, **2018**, 16, 0152
- 2 – C. Leman-Loubière, **G. Le Goff**, C. Debitus and J. Ouazzani ; Sporochartines A–E, A New Family of Natural Products from the Marine Fungus *Hypoxylon monticulosum* Isolated from a *Sphaerocladina* Sponge; *Frontiers in Marine Science*, **2017**, 4, 399
- 3 – C. Leman-Loubière, **G. Le Goff**, P. Retailleau, Cécile Debitus, and Jamal Ouazzani; Sporothriolide-Related Compounds from the Fungus *Hypoxylon monticulosum* CLL-205 Isolated from a *Sphaerocladina* Sponge from the Tahiti Coast; *J. Nat. Prod.* **2017**, doi.org/10.1021/acs.jnatprod.7b00714
- 4 – **G. Le Goff**, E. Adelin, G. Arcile and J. Ouazzani; Total synthesis of the antibiotic 4-hydroxycyclopent-2-en-1-one acrylate derivative EA-2801; *Tetrahedron Letters*, **2017**, 58, 2337
- 5 – E. Adelin, **G. Le Goff**, P. Retailleau, M. Bonfill and J. Ouazzani; Isolation of the antibiotic methyl (R,E)-3-(1-hydroxy-4-oxocyclopent-2-en-1-yl)-acrylate EA-2801 from *Trichoderma atroviridae*; *The Journal of Antibiotics*, **2017**, 00, 1–4. doi:10.1038/ja.2017.107
- 6 - A. Vingadassalon, F. Lorieux, M. Juguet, **G. Le Goff**, C. Gerbaud, J.-L. Pernodet, and S. Lautru ; Natural Combinatorial Biosynthesis Involving Two Clusters for the Synthesis of Three Pyrrolamides in *Streptomyces netropsis*. *ACS Chem. Biol.*, **2015**, 10 (2), 601.
- 7 - **G. Le Goff**, J. Ouazzani ; Natural hydrazine-containing compounds: Biosynthesis, isolation, biological activities and synthesis. *BMC.*, **2014**, 22(23),6529.
- 8 - **G. Le Goff**, E. Roulland and J. Ouazzani; Total synthesis of geraldin A, a representative of a new family of hydrazine-containing natural products. *Tet. Lett.*, **2013**, 54(39), 5299.
- 10 - **G. Le Goff**, E. Adelin, S. Cortial, C. Servy, and J. Ouazzani; Application of solid-phase extraction to agar-supported fermentation. *Bioprocess and Biosystems Engineering*, **2013**, 36(9), 1285.
- 11 - **G. Le Goff**, M.T. Martin, C. Servy, S. Cortial, I. Bogdan, E. Adelin and J. Ouazzani; Isolation and Characterization of Unusual Hydrazides from *Streptomyces* sp. Impact of the Cultivation Support and Extraction Procedure. *J. Nat. Prod*, **2013**, 76(2), 142.
- 12 - **G. Le Goff**, M.T. Martin, C. Servy, S. Cortial, P. Lopes, A. Bialecki, J. Smadja and J.Ouazzani; . Isolation and Characterization of α,β -Unsaturated γ -Lactono-Hydrazides from *Streptomyces* sp. *J. Nat. Prod*, **2012**, 75, 915.
- 13 - E. Adelin, C. Servy, S. Cortial, H. Levaique, M.T. Martin, P. Retailleau, **G. Le Goff**, B. Bussaban, S. Lumyong and J. Ouazzani; . Isolation, structure elucidation and biological activity of metabolites from Sch-642305-producing endophytic fungus *Phomopsis* sp. CMU-LMA. *Phytochemistry*, **2011**, 72, 2406.
- 14 - J. Smadja, D. Strasberg, **G. Le Goff** and A. Gauvin-Balecki; Volatile compounds from *Melicope obscura*. *Chemistry and Biodiversity*, **2010**, 7(2), 467.

Patents.

1. Jamal OUAZZANI, **Géraldine LE GOFF**. Somartex, Self Operating MARine Trapping EXtractor. CNRS, INPI 1850669, **2018**
2. Jamal OUAZZANI, **Géraldine LE GOFF**, Doru FELEZEU, Arnaud TOURON, Christophe ALLEGRET-BOURDON, UNIFERTEX, UNiversal FERmentor EXpert, device for microbial cultivation. CNRS/Pierre Guerin Technologies, INPI 1763222, **2017**
3. Chérif RABHI, Léon CARIEL, Christian DA COSTA NOBLE, Jamal OUAZZANI, Guillaume ARCILE, **Géraldine LE GOFF**. Compounds For Treating Neurodegenerative Disorders, ETHNODYNE/CNRS, PCT/IB2017/001757, **2017**
4. Chérif RABHI, Léon CARIEL, Christian DA COSTA NOBLE, Jamal OUAZZANI, Guillaume ARCILE, **Géraldine LE GOFF**. Compounds For Treating Neurodegenerative Disorders, ETHNODYNE/CNRS, PCT/IB2017/001758, **2017**
5. Chérif RABHI, Léon CARIEL, Christian DA COSTA NOBLE, Jamal OUAZZANI, Guillaume ARCILE, **Géraldine LE GOFF**. Compounds For Treating Neurodegenerative Disorders, ETHNODYNE/CNRS, PCT/IB2017/001758, **2017**
6. Ouazzani, J., Adelin, E., **Le Goff, G.** 4-vinyl-2-cyclopenten-1-one, the production thereof, and the use of same as an antibiotic agent. WO2015/169876, PCT/EP2015/059999, **2015**