

## PROFESSIONAL EXPERIENCES

### *Chargé de Recherche*

Faculty of Pharmacy of  
Strasbourg  
Alain Wagner's team  
Jan. 2017-present

- Development of new tools for the bioconjugation of tyrosine residues
- Application of multicomponent reactions to the site-specific bioconjugation of native proteins
- Late-stage functionalisation of bioactive molecules for metabolomic studies

**Achievements:** ranked first in the 2016 CNRS competitive examination, section 16.

**Supervision:** 1 post-doctoral researcher (Dr Fabien Thoreau, 2017-now), 2 PhD students (Ms Charlotte Sornay, 2017-now; Mr Victor Lehot, start in 2018), 2 Masters students (Ms Deborah Chidharom & Mr Brayon Roulier, 2018).

**Grants & fundings:** Région Grand-Est & Médalis (100 k€, recruitment of Ms Sornay); Région Grand-Est (20 k€, part of Dr Thoreau's salary), IDEX (40 k€, equipment & consumables).

### PDRA

University of Oxford  
E. A. Anderson group  
Feb. 2014-Jan. 2017

- Studies towards the total syntheses of Rubrifloridilactones A and B
- Ligands synthesis for rhodium-catalysed [5+2] cycloisomerisation of ynamide-vinylcyclopropanes
- Synthesis of small heteroaromatic rings using palladium catalysis

**Key points:** stereoselective total synthesis using palladium or cobalt-catalysed cyclisation; chiral phosphoramidites synthesis and subsequent ligand screening; development of new, cheap and efficient palladium-catalysed syntheses of furans, pyrroles, thiophenes and isoxazoles.

**Grants:** SCG Chemicals for the ligand synthesis project; European Research Council/Marie Skłodowska-Curie Actions for the palladium-catalysed synthesis of heteroaromatics project.

### PhD

Université Montpellier II  
J. Martinez group  
Oct. 2010-Dec. 2013

- New ring-contraction reactions: tools for the construction of organised edifices

**Key points:** stereoselective synthesis of spiro lactams and analyses of their folding properties, diketopiperazines to hydantoins ring contraction, Lewis acid catalysed fused to spiro rearrangement.

**Grants and awards:** grant from the Ministry of Higher Education and Research, French Chemical Society prize for the **best PhD thesis** in chemistry of the Languedoc-Roussillon region, second inter-regional prize.

### Master's degree

Université Montpellier  
J. Martinez group  
Feb. 2010-Jun. 2010

- Synthesis of a new family of aminothiazoles with anti-tuberculosis aim (J. Martinez group / Feb. 2010-Jun. 2010)
- Synthesis of ( $\pm$ )-1',4'-dimethyladenosine as new nucleoside analogue (C. Périgaud group / Apr. 2009-Jun. 2009)

**Key points:** aza-Friedel-Crafts reaction, Hantzsch cyclisation, Baeyer-Villiger oxidation, Vorbrüggen coupling, methodological work, protecting group chemistry.

## EDUCATION

### Master's degree

Université Montpellier II  
2008-2010

- Biomolecular Chemistry and Biomolecules Engineering

**Main classes:** synthesis and reactivity of amino acids, carbohydrates, lipids and nucleic acids; NMR; mass spectrometry; organometallic chemistry.

**Awards:** *bourse au mérite* - merit-based fellowship from the Ministry of Higher Education and Research.

### Bachelor's degree

Université d'Avignon  
2005-2008

- Organic Chemistry and Life Sciences

**Main classes:** organic and medicinal chemistry, biochemistry.

## SKILLS

**Organic synthesis:** stereoselective synthesis and tandem reactions; total synthesis; micro-wave assisted organic synthesis; peptide synthesis; transition metal catalysis.

**Analysis:** analytic, chiral and preparative HPLC; MS; 1D and 2D NMR of  $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{11}\text{B}$ ,  $^{19}\text{F}$ ,  $^{29}\text{Si}$ ; X-ray crystallography; circular dichroism; scanning electron microscopy.

**Languages:** French: mother tongue • English: fluent • German: intermediate.

## PUBLICATIONS

- **"Recent, non-classical, approaches to antibody lysine modification"** G. Chaubet\*, F. Thoreau, and A. Wagner, *Drug Discov. Today Technol.*, 2018, DOI: [10.1016/j.ddtec.2018.09.002](https://doi.org/10.1016/j.ddtec.2018.09.002).
- **"Dual oxidation state tandem catalysis in the palladium-catalyzed isomerization of alkynyl epoxides to furans"** C. Arroniz, G. Chaubet, and E. A. Anderson, *ACS Catal.*, 2018, **8**, 8290.
- **"Arginine-selective bioconjugation with 4-azidophenyl glyoxal: application to the single and dual functionalisation of native antibodies"** I. Dovgan, S. Erb, S. Hessmann, S. Ursuegui, C. Michel, C. Muller, G. Chaubet, S. Cianférani, and A. Wagner, *Org. Biomol. Chem.*, 2018, **16**, 1305.
- **"Total Synthesis of the Schisandraceae Nortriterpenoid Rubriflordilactone A"** G. Chaubet, S. S. Goh, M. Mohammad, B. Gockel, M.-C. A. Cordonnier, H. Baars, A. W. Phillips, and E. A. Anderson, *Chem. Eur. J.*, 2017, **23**, 14080; selected as "Hot Paper".
- **"Total Synthesis of (+)-Rubriflordilactone A"** S. S. Goh, G. Chaubet, B. Gockel, M.-C. A. Cordonnier, H. Baars, A. W. Phillips, and E. A. Anderson, *Angew. Chem. Int. Ed.*, 2015, **54**, 12618.
- **"Microwave-Assisted Hydantoins Synthesis on Solid Support"** G. Chaubet and I. Parrot, *Comprehensive Organic Chemistry Experiments for the Laboratory Classroom*, Royal Society of Chemistry, *in press*.
- **"Enantioselective Synthesis of the Predominant AB Ring System of the Schisandra Nortriterpenoid Natural Products"** B. Gockel, S. S. Goh, E. Puttock, H. Baars, G. Chaubet, and E. A. Anderson, *Org. Lett.*, 2014, **16**, 4480.
- **"From diketopiperazines to hydantoins: an unprecedented rearrangement"** G. Chaubet, G. Cazals, A. Lebrun, J. Martinez, and I. Parrot, *Synlett*, 2014, **25**, 0574.
- **"Stereoselective synthesis of original spiro lactams displaying promising folded structures"** G. Chaubet, T. Coursindel, X. Morelli, S. Betzi, P. Roche, Y. Guari, A. Lebrun, L. Toupet, Y. Collette, I. Parrot, and J. Martinez, *Org. Biomol. Chem.* 2013, **11**, 4719. **Highlighted** on ChemInform, 2013, **44**, DOI: [10.1002/chin.201346103](https://doi.org/10.1002/chin.201346103).
- **"A tandem aza-Friedel-Crafts reaction/Hantzsch cyclization: a simple procedure to access polysubstituted 2-amino-1,3-thiazoles"** G. Chaubet, L. T. Maillard, J. Martinez, and N. Masurier, *Tetrahedron* 2011, **67**, 4897.
- **"Synthetic Studies towards New Nucleoside Analogues: Preparation of (±)-1',4'-Dimethyladenosine"** G. Chaubet, D. Bourgeois, and C. Périgaud, *Eur. J. Org. Chem.* 2011, 319.