

Present & previous positions

Aug 2013 -
Present

Organic Chemist, Assistant Engineer at URD

AgroBiotechnologies Industrielles (ABI) – AgroParisTech, Pomacle, France.

- Lignocellulosic biomass valorization using white biotechnologies, green chemistry and Chemical/process engineering: bio-based monomers/oligomers/polymers, synthons, ingredients, surfactants, flavor and fragrances, bioactive (macro)molecules (e.g., antioxidant, antimicrobial) . . .
- Total synthesis of biologically relevant phenolics

Sept 2008-
June 2013

Synthetic Chemist, at AstraZeneca R&D Oncology, Reims, France.

Education

2004 – 2008 **M.Sc.in Chemistry M2**, U. of Nantes, France.

2003 – 2004 **Undergraduate courses** to prepare nationwide competitive exams in sciences (physic and chemistry), Arras, France.

2003 **Baccalauréat** , French secondary school diploma/high-school degree, Arras, France.

Scientific production

Patents :

Method for converting levoglucosenone into 4-hydroxymethyl butyrolactone and 4-hydroxymethyl butenolide without using any organic solvent and catalyst Allais, Florent; Bonneau, Guillaume; Peru, Aurelien; Flourat, Amandine WO 2018007764

Method for synthesizing a precursor of a single dairy-lactone isomer as aroma and flavor substances for food and cosmetic products Allais, Florent; Flourat, Amandine; Peru, Aurelien; Greatrex, Ben; Warwick, Douglas; Duncan, Anthony WO 2016162646

Method for transforming levoglucosenone into 4-hydroxymethyl butyrolactone or 4-hydroxymethyl butenolide Allais, F. ; Flourat, A. L. ; Peru, A. A. M. ; Teixeira, A. R. S. ; Brunissen, F. ; Spinnler, WO 2015165957

Publications in peer-reviewed journals :

From bench scale to kilolab production of renewable ferulic acid-based bisphenols: optimisation and evaluation of different purification approaches towards technical feasibility and process environmental sustainability Teixeira, A. R. S.; Willig, G.; Couvreur, J.; Flourat, A. L.; Peru, A. A. M.; Ferchaud, P.; Ducatel, H.; Allais, F. *Reaction Chemistry & Engineering* (2017), 2(3), 406-419.

Chemo-Enzymatic Synthesis of Chiral Epoxides Ethyl and Methyl (S)-3-(Oxiran-2-yl)propanoates from Renewable Levoglucosenone: An Access to Enantiopure (S)-Dairy Lactone Peru Aurelien A M; Flourat Amandine L; Allais Florent; Gunawan Christian; Raverty Warwick; Jevric Martyn; Greatrex Ben W; *Molecules* (Basel, Switzerland) (2016), 21(8).

Lipase-Catalyzed Baeyer-Villiger Oxidation of Cellulose-Derived Levoglucosenone into (S)- γ -Hydroxymethyl- α,β -Butenolide: Optimization by Response Surface Methodology Teixeira Andreia R S; Flourat Amandine L; Peru Aurelien A M; Brunissen Fanny; Allais Florent *Frontiers in chemistry* (2016), 4, 16.

Discovery of (R)-8-(1-(3,5-difluorophenylamino)ethyl)-N,N-dimethyl-2-morpholino-4-oxo-4H-chromene-6-carboxamide (AZD8186): a potent and selective inhibitor of PI3K β and PI3K δ for the treatment of PTEN-deficient cancers Barlaam Bernard; Cosulich Sabina; Degorce Sebastien; Fitzek Martina; Green Stephen; Hancox Urs; Lambert-van der Brempt Christine; Lohmann Jean-Jacques; Maudet Mickael; Morgentin Remy; et al *Journal of medicinal chemistry* (2015), 58(2), 943-62.

Investigation of (E)-3-[4-(2-Oxo-3-aryl-chromen-4-yl)oxyphenyl]acrylic Acids as Oral Selective Estrogen Receptor Down-Regulators Degorce Sebastien L; Bailey Andrew; Callis Rowena; De Savi Chris; Ducray Richard; Lamont Gillian; MacFaul Philip; Maudet Mickael; Martin Scott; Morgentin Remy; et al *Journal of Medicinal Chemistry* (2015), 58(8), 3522-3533.

Chemo-enzymatic synthesis of key intermediates (S)- γ -hydroxymethyl- α,β -butenolide and (S)- γ -hydroxymethyl- γ -butyrolactone via lipase-mediated Baeyer-Villiger oxidation of levoglucosenone Flourat, A. L.; Peru, A. A. M.; Teixeira, A. R. S.; Brunissen, F. and Allais, F. *Green Chemistry* (2015), 17(1), 404-412

Structure-Activity Relationships and structural design optimization of a series of para-hydroxycinnamic acids-based bis- and trisphenols as novel sustainable antiradical/antioxidant additives Armando F. Reano, Julie Chérubin, Aurélien M. M. Peru, Qiao Wang, Tiphaine Clément, Sandra Domenek, Florent Allais *ACS Sustainable Chemistry & Engineering* (2015), 3(12), 3486-3496

Unprecedented syntheses of 1,5-difluoropentan-3-amine and 4-fluoro-2-(2-fluoroethyl)butan-1-amine. Lach F. and Peru A *Tetrahedron Lett.* 53(6):3, February 2012.

Two-directional approach for the rapid synthesis of 2,4-bis-aminoaryl pyridine derivatives. Rémy Morgentin, Bernard Barlaam, Kevin Foote, Lorraine Hassall, Janet Hawkins, Clifford D. Jones, Antoine Le Griffon, Aurelien Peru, and Patrick Plé. *Synthetic Communications*, 42(1):8–24, 2012.

Supervision

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|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 2016
6 months | Maxime MOREAUX,
Synthèse chimio-enzymatique de dérivés de sucres à forte valeur ajoutée à partir de la lévoglucosénone Part 2 |
| 2015
6 months | Guillaume BONNEAU
Synthèse chimio-enzymatique de dérivés de sucres à forte valeur ajoutée à partir de la lévoglucosénone Part 1 |