Caroline NUGIER-CHAUVIN
Assistant Professor
Ecole Nationale Supérieure de Chimie de Rennes
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Professional

2011-	Head of the Engineer Formation at ENSC Rennes
2003	Assistant Professor
1994	Associate Professor at the ENSC Rennes
1992	Post-doctoral researcher at the Glaxo Group Research in medicinal chemistry department (Greenford-London).
1988-1991	PhD student (New regioselective acylations of unprotected sucrose by chemical and chemo-enzymatic syntheses, Prof. D. Plusquellec).
1988	MSc (Regioselective synthesis of thiocarbonates from free monosaccharides, Prof. D. Plusquellec)

Education

2003	DSc diploma in chemistry and physical chemistry
1991	PhD diploma in organic chemistry
1988	French Graduate Chemical Engineer Degree- ENSC Rennes MSc in organic chemistry – Rennes I

Teaching

- ✓ Organic chemistry
- ✓ Glycochemistry
- ✓ Metabolic Biochemistry
- ✓ Biological chemistry
- ✓ Biocatalysis

Research area

- ✓ Glycochemistry, glycosidic synthesis
  - Rare furanosides
  - Nucleotide furanoses
- ✓ Novel biocatalyzed syntheses of glycofuranosidic haptens, (thioglycoligases, glycosidases) protection and deprotection steps catalyzed by lipases
- ✓ Bioactive molecules
  - Immunomodulation
  - immunostimulation
  - Anti-parasitic drugs

Bibliography

- ✓ 51 publications
- ✓ 4 Patents
- ✓ ≈ 30 lectures/oral communications

10 Most relevant publications

- ✓ "Stereoselective chemo-enzymatic synthesis of UDP 1,2-cis-furanoses from α,β–furanosyl-1-phosphates"
  Peltier, P.; Guégan, J-P. ; Daniellou, R.; Nugier-Chauvin, C. ; Ferrières, V. **Eur. J. Org. Chem., 2008***,* 5988-5994.

- ✓ "Recent knowledge and innovations related to hexofuranosides. structure, synthesis and applications"
  Peltier P. ; Euzen, R. ; Daniellou R ; Nugier-Chauvin C. ; Ferrières V. **Carbohydr. Res**. **2008,** *343,* 1897-1923.

- ✓ "Influencing the regioselectivity of lipase-catalyzed hydrolysis with [bmim]PF_6"
  Gervaise, C. ; Daniellou, R. ; Nugier-Chauvin, C. ; Ferrières, V. **Tett. Lett., 2009**, 50, 2083–2085.

- ✓ "Synthetic UDP-furanoses inhibit the growth of the parasite *Leishmania*"
  Dureau, R. ; Robert-Gangneux, F. ; Gangneux, J-P. ; Nugier-Chauvin, C. ; Legentil, L. ; Daniellou, R. ; Ferrières, V. **Carbohydr. Res***,* **2010,** 345, 1299-1305.

- ✓ "Enzymatic synthesis of oligo-D-galactofuranosides and L-arabinofuranosides: from molecular dynamics to immunological assays. "
  Chlubnová, I. ; Filipp, D. ; Spiwok, V. ; Dvořáková, H.; Daniellou, R. ; Nugier-Chauvin, C. ; Králová, B.; Ferrières, V. **Org. Biomol. Chem**. **2010**, 8, 2092-2102.

- ✓ "Natural glycans and glycoconjugates as immunomodulating agents"
  Chlubnová, I. ; Sylla, B.; Nugier-Chauvin, C. ; Daniellou, R. ; Legentil, L. ; Králová, B. ; Ferrières, V. **Nat. Prod. Rep. 2011**, 28, 937-952.

- ✓ "Exploring the synthetic potency of the first furanothioglycoligase through original remote activation"
  Almendros, M. ; Danalev, D. ; Heude, M-F. Loyer, P. ; Legentil, L. *;* Nugier-Chauvin, C. ; Daniellou, R. ; Ferrières, V. **Org. Biomol. Chem. 2011***,* 9, 8371–8378.

- ✓ "Characterization of biodegradable poly(butylenes adipate-co-terephtalate)/sodium caseinate films loaded with an alkyl furanoside as antimicrobial agent"
  Audic, J-L. ; Legentil, L. ; Nugier-Chauvin, C. ; Ferrières, V. ; Potel, M. ; Roisnel, T. **J. Mater Sciences 2012**, 47(15), 5806-5814.

- ✓ "The versatile enzyme Araf51 allowed efficient synthesis of rare pathogen-related β-D-galactofuranosyl-pyranoside disaccharides"
  Chlubnová, I.; Králová, B.; Dvořáková, H.; Hošek, P.; Spiwok, V. ; Filipp, D.; Nugier-Chauvin, C.; Daniellou, R.; Ferrières, V. **Org. Biomol. Chem. 2014**, 12, 3080-3089.

- ✓ "Environmentally benign glycosylation of aryl pyranosides and aryl/alkyl furanosides demonstrating the versatility of thermostable CGTase from *Thermoanaerobacterium sp*."
  Pennec, A ; Legentil, L. ; Herrera-Estrella, L. ; Ferrieres, V. ; Chauvin, A.-L. ; Nugier-Chauvin, C. **Green Chem., 2014,** 16, 3803-3809.