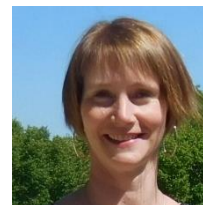




## Dr. Laure Guilhaudis



Assistant Professor

Analysis and Modelling team

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### PROFESSIONAL EXPERIENCES

- 2000 - Assistant Professor; University of Rouen Normandy, France.  
2000 Postdoctoral Associate; Advisor: Dr. M.S. Caffrey, University of Illinois at Chicago, United States.

### EDUCATION

- 2011 HDR, University of Rouen, France.  
1996-2000 Ph.D. in Structural Biology, University of Grenoble (Joseph Fourier), France.  
1995-1996 MSc Biological NMR and Crystallography, University of Grenoble (Joseph Fourier), France.

### ADMINISTRATIVE & INSTITUTIONAL RESPONSIBILITIES

- 2020- Head of Master 2 Analysis and Spectrochemistry, University of Rouen Normandy, France.  
2020- Member of the executive committee of the XL-Chem graduate school of research, Normandy University, France.  
2013- Member of the management board of the faculty of Science and Technology, University of Rouen, France.  
2013-2017 Dean of Students, faculty of Science and Technology, University of Rouen, France.  
2012- Member of the Advisor Commission of faculty specialists (CCSE, section 31) – University of Rouen, France.  
2012-2014 Vice-President of the Advisor Commission of faculty specialists (CCSE, section 31) – University of Rouen, France.  
2009-2014 Member of the steering committee of the European network IS:CE – Chem (Interreg IVA program), Normandy University, France.  
2008-2012 Member of the Scientific Council of the University of Rouen, France.  
2004-2008 Member of The Commission of faculty specialists (section 31) – University of Rouen, France.  
2003-2008 Member of The Chemistry Department Council, University of Rouen, France.

## RESEARCH INTERESTS

**Structural studies by Circular Dichroism, NMR and Molecular Modelling of bioactive peptides and proteins.**

**Characterization of plant extracts by NMR (metabolic profiling).**

## SCIENTIFIC ACHIEVEMENTS

**Academic record (h-index: 17)**

30 publications, 2 book chapters, 10 invited lectures (academia & industry)

**Selected awards**

2017 Chevalier de l'ordre des palmes académiques

## SUPERVISION ACTIVITIES

Thesis supervisor for 7 PhD students.

Supervisor of 19 master (or equivalent degree) students.

## GRANTS AND FELLOWSHIPS

Regional thesis fellowships (2012, 2016, 2020)

IS:CE-Chem thesis fellowships (2010)

ANR ChemoTx-ProG (2012-2015)

CNRS and FEDER fundings (2009, 2010): use of transgenic plants as cell factory for producing <sup>13</sup>C and <sup>15</sup>N labeled proteins.

## TEACHING ACTIVITIES

**Taught academic disciplines:**

Physical Chemistry (atoms and molecules, chemistry in solution), Analytical Chemistry (CD, fluorescence), Structural Biology (NMR, CD, fluorescence applied to polypeptides).

## PUBLICATIONS

**Selection of publications:**

Migliore M.; Bonvicini A.; Tognetti V.; Guilhaudis L.\*; Baaden M.; Oulyadi H.; Joubert L.; Ségalas-Milazzo I. Characterization of  $\beta$ -turns by electronic circular dichroism spectroscopy: A coupled molecular dynamics and time-dependent density functional theory computational study. *Physical Chemistry Chemical Physics*. 2020, 22 (3), 1611-1623. DOI: <https://doi.org/10.1039/C9CP05776E>

Musale V.; Guilhaudis L.; Abdel-Wahab Y. H.; Flatt P.; Conlon J. M. Insulinotropic activity of the host-defense peptide frenatin 2D: Conformational, structure-function and mechanistic studies. *Biochimie*. 2019, 156, 12-21. DOI: <https://doi.org/10.1016/j.biochi.2018.09.008>.

Téné N.; Bonnafé E.; Berger F.; Rifflet A.; Guilhaudis L.; Ségalas-Milazzo I.; Pipy B.; Coste A.; Leprince J.; Treilhou M. Biochemical and biophysical combined study of bicarinalin, an ant venom antimicrobial peptide. *Peptides*. 2016, 79, 103-113. DOI: <https://doi.org/10.1016/j.peptides.2016.04.001>

Trouillard R.; Hubert-Roux M.; Tognetti V.; Guilhaudis L.; Plasson C.; Menu-Bouaouiche L.; Coquet L.; Guerineau F.; Hardouin J.; Ele Ekouna J.-P.; Cosette P.; Lerouge P.; Boitel-Conti M.; Afonso C.; Ségalas-Milazzo I. Determination of Multimodal Isotopic Distributions: The Case of a (15)N Labeled Protein Produced into Hairy Roots.. *Analytical Chemistry*. 2015, 87 (12), 5938-5946. DOI: <https://doi.org/10.1021/acs.analchem.5b01558>.

Pierry C.; Couve-Bonnaire S.; Guilhaudis L.; Neveu C.; Marotte A.; Lefranc B.; Cahard D.; Ségalas-Milazzo I.; Leprince J.; Pannecoucke X. Fluorinated pseudopeptide analogues of the neuropeptide 26RFa: synthesis, biological, and structural studies.. *ChemBioChem*. 2013, 14 (13), 1620-1633. DOI: <https://doi.org/10.1002/cbic.201300325>

Carlier L.; Couprie J.; Le Maire A.; Guilhaudis L.; Milazzo-Ségalas I.; Marie C.; Moutiez M.; Gondry M.; Davoust D.; Gilquin B.; Zinn-Justin S. Solution structure of the region 51-160 of human KIN17 reveals an atypical winged helix domain. *Protein Science*. 2009, 16 (12), 2750-2755

Bourgault S.; Vaudry D.; Ségalas-Milazzo I.; Guilhaudis L.; Couvineau A.; Laburthe M.; Vaudry H.; Fournier A. Molecular and conformational determinants of pituitary adenylate cyclase-activating polypeptide (PACAP) for activation of the PAC1 receptor.. *Journal of Medicinal Chemistry*. 2009, 52 (10), 3308-3316. DOI: <https://doi.org/10.1021/jm900291j>

Boivin S.; Ségalas-Milazzo I.; Guilhaudis L.\*; Oulyadi H.; Fournier A.; Davoust D. Solution structure of urotensin-II receptor extracellular loop III and characterization of its interaction with urotensin-II. *Peptides*. 2008, 29 (5), 700-710. DOI: <https://doi.org/10.1016/j.peptides.2008.02.024>