Dr. Laure Guilhaudis

Assistant Professor
Analysis and Modelling team
Tel : 33 (0)2 35 52 29 34 E-mail : laure.guilhaudis@univ-rouen.fr
Orcid ID, IDHal (laure-guilhaudis), Researchgate, linked in

PROFESSIONNAL 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 ^{13}C and ^{15}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 β-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-Segalas 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