Curriculum vitae

Dr. Rénato Froidevaux / UMRt 1158 BioEcoAgro

E-mail: renato.froidevaux@univ-lille.fr

Phone: [redacted]

Education and training

2014-: Professor, University of Lille

2001-2014: Associate Professor, University of Lille

2008: Accreditation to Supervise Research, University of Lille

2001: Doctorate in Enzyme Engineering, Bioconversion and Microbiology, University of Lille

1996: Master of Biochemistry, University of Lille

1994: DUT Applied Biology, IUT “A”, University of Lille

Work experience

2020-present: Head of the "Biotransformation/Biocatalysis" team (10 permanent staff) - UMRt 1158 BioEcoAgro

2016-2019: Head of the ProBioGEM team (25 people) - Institut Viollette

2013-present: Member of the scientific committee of GECCO Industrie (Department 59)

2011-present: Member of the steering and scientific committee of EQUIPEX Realcat (University of Lille)

(Co-)supervision of 12 PhDs (4 currently), 12 post-docs, and 23 master's and technician-level students

Project rapporteur: ANR, regional projects, CPER, NWO

Expert member of HCERES in 2019 LBAE University Toulouse 3, in 2020 IRCELyon.

Pedagogical and administrative responsability

2009-today: Director of studies of the Master (M1 & M2) in Quality, Health, Safety and Environment, University of Lille (80 students per year)

2009-2019: Director of studies for the French-Romanian double diplomation Master 2 (15 students per year)

Domains of competence

The valorization of agro-resources of plant origin (lignin, co-products, pea and alfalfa proteins), animal origin (milk proteins) by enzymatic means and "hybrid catalysis," which involves the combination of different types of catalysis (biological, chemical, mechanical), to obtain

molecules of interest (bioactive peptides, aromatics, furfurals, esters). This theme allows to address topics such as the influence of reaction conditions (the notion of medium engineering) for the production of these molecules, and the consideration of their physicochemical properties for the development of one-pot/two-step and one-pot/one-step hybrid processes.

Keywords: Enzymes, Proteases, Oxido-reductases, Lipases, Enzymatic biocatalysis in homogeneous and heterogeneous media, Enzymatic hydrolysis, Enzymatic depolymerization of lignin, Hybrid catalysis, Reaction engineering and associated processes, Bioactive peptides, Biosourced chemical intermediates.

Publications & projects:

55 international peer-reviewed articles, the cover of the first issue of ChemCatChem in January 2021, 7 book chapters and 3 patents. To date, 54 oral communications, including 33 international and 21 national, and 29 poster communications, including 15 international and 14 national.

Research team member in 12 grants/projects; coordinator for 6 national projects

Hirsch Index : 18, more than 800 citations

Other activities

-Projects reviewer since 2010: ANR (national projects), regional projects, NWO (Netherlands call).

-HCERES expert members in 2019 LBAE University of Toulouse 3, in 2020 IRCELyon.

-Since 2023, scientific director (French part) of the international associated laboratory on the bioproduction of natural antimicrobials (LIAAN) with Laval University in Quebec.

-Member of the Domain of Strategic Activities “Bioeconomy” in the Hauts-de-France Region since 2022. It brings together socio-economic actors (SME-VSE-GE companies, the European Metropolis of Lille, the Region , the B4C competitiveness clusters, ClubsterNSL), academic (ULille laboratories).

-Member of the HUB “Innovation in the service of a changing planet” since 2022 which is part of I-SITE ULNE, the university of excellence label Université Lille Nord-Europe obtained in 2017.

-Since 2010, member of the Scientific Committee of the company GECCO which is a Social and Solidarity Enterprise created in 2007, expert in the collection and recovery of waste from the agro-food industry in the Hauts-de-France Region.

-Organization of a stand at the « Fête de la Science 2023 » on coproducts valorisation for obtaining bioactive and functional molecules for applications in the fields of mutrition/bioenergy/materials.