

#OrganicChemistry
#BioOrganic
#Reactivity #Analysis

COBRA

« Laboratoire de Chimie Organique
et Bio organique, Réactivité et Analyse »

www.lab-cobra.fr

RESEARCH
laboratory



Staff over
160

Founded in
1996

3
common
laboratories with
industry

COBRA lab is supported by CNRS (French national research center for science, label UMR6014), Normandy University of Rouen and INSA Rouen Normandy. It is integrated into the Normandy doctoral school of chemistry and the Normandy network for research "Biomedical and Chemistry". It plays a central part in the «Institut Carnot» I2C, and is member of the Laboratory of Excellence SynOrg.

Research fields

- ✓ Analysis and modeling
- ✓ Bio-organic chemistry
- ✓ Synthesis of fluorinated biomolecules
- ✓ Exploratory methodologies for organic and organometallic synthesis
- ✓ Heterocycles

Application areas



Pharmaceutical
industry



Cosmetics



Energy



Agri-food



Environment

Know-how and expertise

✓ Analysis and modeling

Molecular and supramolecular mass spectrometry, NMR and molecular modeling, theoretical chemistry.

✓ Organic and organo-metallic synthesis

Organo (bi) metals in enantioselective synthesis, carbometalation of alkenes and alkynes, organometallic, organocatalytic and natural product synthesis methodologies, continuous organic synthesis and reactivity, organic synthesis under ultra high pressure.

✓ Bioorganic chemistry

Chemistry of organic fluorophores, probe for imaging, medicinal chemistry and reactivators, immunoenzymatic detection of toxins, synthetic methodology.

✓ Fluorinated biomolecules synthesis

New methods of synthesis in organofluorinated chemistry, elaboration and synthesis of fluorinated biomolecules.

✓ Heterocycles

Pharmacochemistry of heterocycles, direct functionalization of the C-H bond of heterocycles, organocatalysis.

🔗 A wide range of collaborations

COBRA lab has close links with companies, including three common laboratories: Janssen, Total and Holodiag. 4 start-ups have emerged from the scientific success of the laboratory and more than 50 patents have been filed since its creation. COBRA is also the winner of an ERC. The skills of COBRA are widely exported: Germany, England, Italy, Spain, Switzerland, United States, Japan ...

Facilities

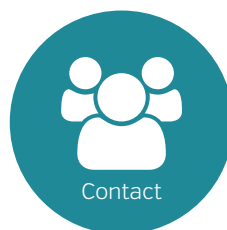
Advanced equipment

- 6 NMR: 600 MHz, 500 MHz, 400 MHz and 3 x 300 MHz
- Mass Spectrometry: FT-ICR ultra-high resolution, Q-IM-TOF-MS, MALDI-TOF-MS, LC-MSMS, GCMS ...
- ICP-MS
- equipment for continuous flow and microfluidic synthesis
- high pressure devices ...

Keep in mind

INSA Rouen Normandie is the first public engineering technical university of Normandy. The 10 different engineer education tracks, the 7 masters in research and the 2 masters in applied sciences are deeply connected to its 8 research laboratories.

INSA Rouen Normandie provides two education tracks directly connected to the COBRA lab: engineer in fine chemistry, research master in chemistry.



Contact

Laboratoire COBRA

Bâtiment IRCOF - 1, rue Tesnière
76821 Mont-Saint-Aignan cedex - FRANCE
tél : +33 [0]2 35 52 24 00
dir-cobra@insa-rouen.fr