



Université Bordeaux Segalen – INSERM U 869 : ARNA

Team: ChemBioMed

PERMANENT STAFF

➤ Six extra permanent researchers/engineers are not (yet) involved in AMADEus-relevant projects



Philippe Barthélémy
Prof.
Team leader



Isabelle Bestel
Ass. Prof.



Arnaud Gissot
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Laurent Latxague
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Laurent Azema
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Frederic Vigier
IE

MOBILIZED COMPETENCES

➤ Molecular and supramolecular chemistry for Biomedical applications
+ Nano sciences
+ Drug delivery
+ Bioinspired systems
+ Nucleic acid chemistry

- Synthesis and applications of hybrid bioinspired molecules: Nucleoside Lipids (NLs), Glycosylated Nucleoside Lipids (GNLs), Amino Acid nucleoside lipids (AANLs), Lipid Oligonucleotide conjugates (LONs) etc.
- Supramolecular engineering, bottom up approach for the preparation of nano organized systems (nanoparticles, nanocapsules, nanotubes, nanogels etc)
- Biofunctionalization, and hybrid lipids wrapping of nanomaterials
- Formulation in water or physiological media
- Conception, design and development of specific drug delivery systems (DDS)

MAIN FACILITIES

- Conventional facilities for molecular, supramolecular and physico chemistry (organic synthetic lab, NMR, UV-Vis, tensiometer, nano-sizer, zeta potential, ultrasound...
- Specific synthesis facilities: Automated oligonucleotides synthesis, microwave-assisted synthesis, etc.

CURRENT AND FUTURE PROJECTS WITHIN AMADEus FRAMEWORK

- Development of advanced systems for drug delivery applications
- NanoGels for Stem cells culture
- Transfection hybrid lipids for the delivery of oligonucleotides sequences, siRNA, DNA etc).
- Self-vectorized oligonucleotide targeting biological relevant RNA sequences
- Physico chemistry of hybrid synthetic molecules (Nucleolipids, Lipid oligonucleotide conjugates etc)
- Design of encoded supramolecular systems

