

CQB is located at the Department of Chemistry and Biochemistry (FCUL) and was founded in 2001 aiming at developing internationally competitive science, particularly at the frontier of chemistry and biochemistry. This involvement of the two areas in the same unit is almost unique at a national level. CQB currently consists of twelve groups with complementary scientific interests, in a structure that promotes sharing of resources and collaborative work.

The mission of CQB is grounded on three pillars:

- to investigate challenging problems in chemistry and biochemistry
- to conduct advanced training
- to create social, economic and cultural value from scientific knowledge

Research interests:

- Synthesis, characterization, reactivity and bioactivity of new molecules and materials
- Supramolecular science
- Structure-activity/reactivity and function relationships
- Computational (bio)chemistry and molecular and systems modeling
- Biochemistry and biomedicine
- Analytical science

### Services

Analytical Service  
Technical Expertise Consulting  
Analytical Methods Development  
Molecular Modelation

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### Contacts

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**Ciências**  
**ULisboa**

**CQB**  
Centro  
de Química  
e Bioquímica



## Research Groups

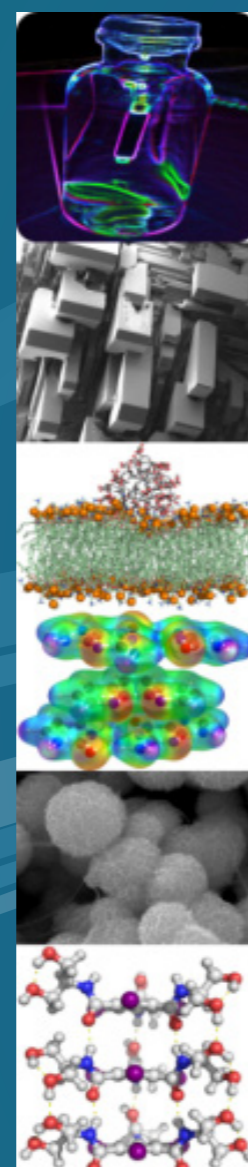
**Adsorption and Adsorbent Materials**  
**Carbohydrate Chemistry**  
**Environmental and Biological Mass Spectrometry**  
**Enzymology**  
**Inorganic and Theoretical Chemistry**  
**Interfacial Electrochemistry**  
**Molecular Biophysics**  
**Molecular Energetics**  
**Redox Biology**  
**Separation Science and Technology**  
**Solid State Chemistry**  
**Structure and Reactivity**

## Thematic Lines

**Chemistry and Biochemistry for a Clean Environment**  
**Healthy Life: Molecular Interventions & Regulation Mechanisms**

Aligned with H2020 Societal Challenges  
 Aligned with Lisbon area regional priorities

**63 Integrated Members**  
**125 Colaborators**



## CQB in numbers\*

117 / year

Publications in peer-review International Journals

35 / year

Ph.D. & Master Theses

4 / year

Patents

\* from 2011-15

## European Projects, Commitments and QREN

- LIFE-Impetus: Improving current barriers for controlling pharmaceutical compounds in urban wastewater treatment plants
- Personalised ICT Supported Service for Independent Living and Active Ageing
- Diagnostic and Drug Discovery Initiative for Alzheimer's Disease
- Healthy ageing with innovative functional foods/leads for degenerative and metabolic diseases (INOVAFOUNAGEING)

## FCT newly funded projects

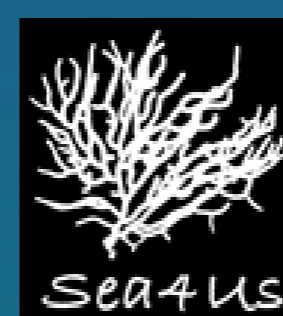
- Multifunctional Luminescent Spin Labile Hybrid Materials
- Overcoming environmental problems associated with antifouling agents: synthesis of Nature inspired nontoxic biocides and immobilization in polymeric coatings
- Sphingolipid organization in the plasma membrane of *Saccharomyces cerevisiae*. Implication in antifungal mode of action and fungal resistance
- Biomimetic/nanobioconjugates flexible platforms for sensitive immunosensing
- CpHMD-L simulations of pHLIP peptides: design of new tumor-targeted drug delivery systems
- Anion transmembrane transport promoted by drug-like molecules: building a library of anion carriers inspired in Ataluren

+ 6 ongoing FCT funded projects

## CQB was involved in launching three start-up companies:

Adsorfoam, SA.

Filtering media for improving indoor air quality



New marine leads



Bio-additives for marine antifouling paints

## CQB networking

The European Innovation Partnership on Active and Healthy Ageing (EIP AHA), Action Group A3

- Prevention of functional decline and frailty
- More than 70 consortia and institutions
- CQB belongs to the FCUL consortium

The European Institute of Innovation and Technology (EIT) has launched an application to a Knowledge and Innovation Community (KIC) on **Healthy Life and Active Ageing**

- FCT approved the project EIT-KIC/IVE/0051/2013 to prepare the application
- CQB is one of the founders of the consortium LISBONLIVING+ built within this project. This consortium involves Industry, Governmental bodies and Academia

7th Sino-Portugal Scientific and Technological Cooperation, 2013-2015, for the Construction of Novel Sensitive Biosensing Interfaces for Tumor Marker and BOD Detection

Participation in 15 COST actions



## Smart Specialization

Contracts and research projects with national & international Industries, collaboration with high-tech SMEs & governmental bodies

