

# Projeto INTERBIO



[www.itqb.unl.pt](http://www.itqb.unl.pt)



INSTITUTO  
DE TECNOLOGIA  
QUÍMICA E BIOLÓGICA  
/UNL

**Knowledge Creation**



# Projecto INTERBIO



Cofinanciado pelo programa de cooperação transnacional INTERREG IVB Sud-Ouest Européen 2007-2013

**Prioridade 1** - "Promoção da inovação e constituição de redes de cooperação perene no domínio das tecnologias"



**Interdisciplinaridade**

**Inovação**

**Transferência de tecnologia**

**Instrumentação avançada**

# INTERBIO – objetivos



## Objetivos

- **Promover a interdisciplinaridade em centros de excelências transnacionais** no domínio das ciências da vida através da associação de pólos de referência do SUDOE
- Desenvolver uma política concertada **de desenvolvimento e de exploração mútua de plataformas de interface em torno das ciências da vida**, tendo como objetivo a médio e longo prazo a configuração de uma rede perene
- **Ampliar e facilitar as operações de parcerias público-privadas** mediante o empenho na redução dos impedimentos às associações potenciais, com a preocupação permanente de transferência dos resultados às empresas, em particular as PME, empresas "start-up" e "spin-off" do sector das ciências da vida

# INTERBIO – parcerias entre centros de excelência



## Espanha

### Região da Catalunha

- BIOCAT - Fundación Privada BioRegió de Catalunya (Catalunha )

### Comunidade Valenciana

- FIVEC- Fundación de la Comunidad Valenciana para la Innovación Urbana y Economía del Conocimiento - (Valência )

## França

### Região Languedoc-Roussillon

-UPS - Université Paul Sabatier (Toulouse)

### Região Midi-Pyrenées

- IECB - Institut Européen de Chimie et Biologie (Bordéus)

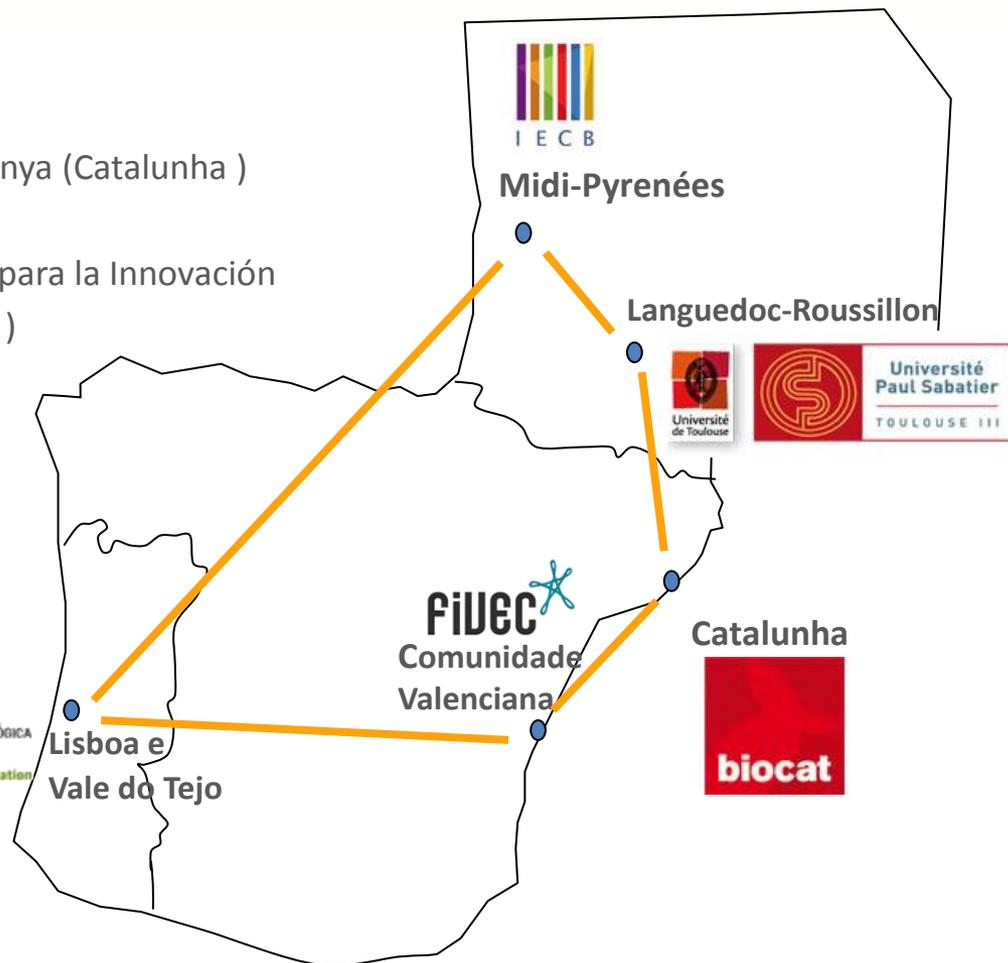
## Portugal

### Região de Lisboa e Vale do Tejo

- ITQB



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# INTERBIO – operacionalização

## Duração

32 Meses - de 1/5/2009 até **31/12/2011**

## Reunião de lançamento

Toulouse 22- 23 Setembro de 2009

## Orçamento total

1,9 Milhões de Euros

## Orçamento para o ITQB

224 Mil Euros

## Coordenação geral

Université Paul Sabatier (Alain-Michel Boudet)

## Coordenação local

ITQB (Miguel S. Teixeira)

## Membros associados ao ITQB



# INTERBIO – os Grupos de Tarefas

O projeto está dividido em **7 Grupos de Trabalho**

GT1 – coordenação e gestão

GT2 - posicionamento

GT3 – promoção da interdisciplinaridade

GT4 – plataformas tecnológicas

GT5 \* – Transferência de tecnologia

GT6 - capitalização do projeto e auditoria ao projeto

GT7- divulgação, comunicação e promoção

## Coordenação no ITQB

Responsável e coordenador científico: Miguel S. Teixeira

Gestão e administração: Lurdes Conceição

Responsável GT3 e GT4: Cláudio M. Gomes

Responsável GT5: Alexandra Veiga

Responsável GT7: Ana M. Sanchez

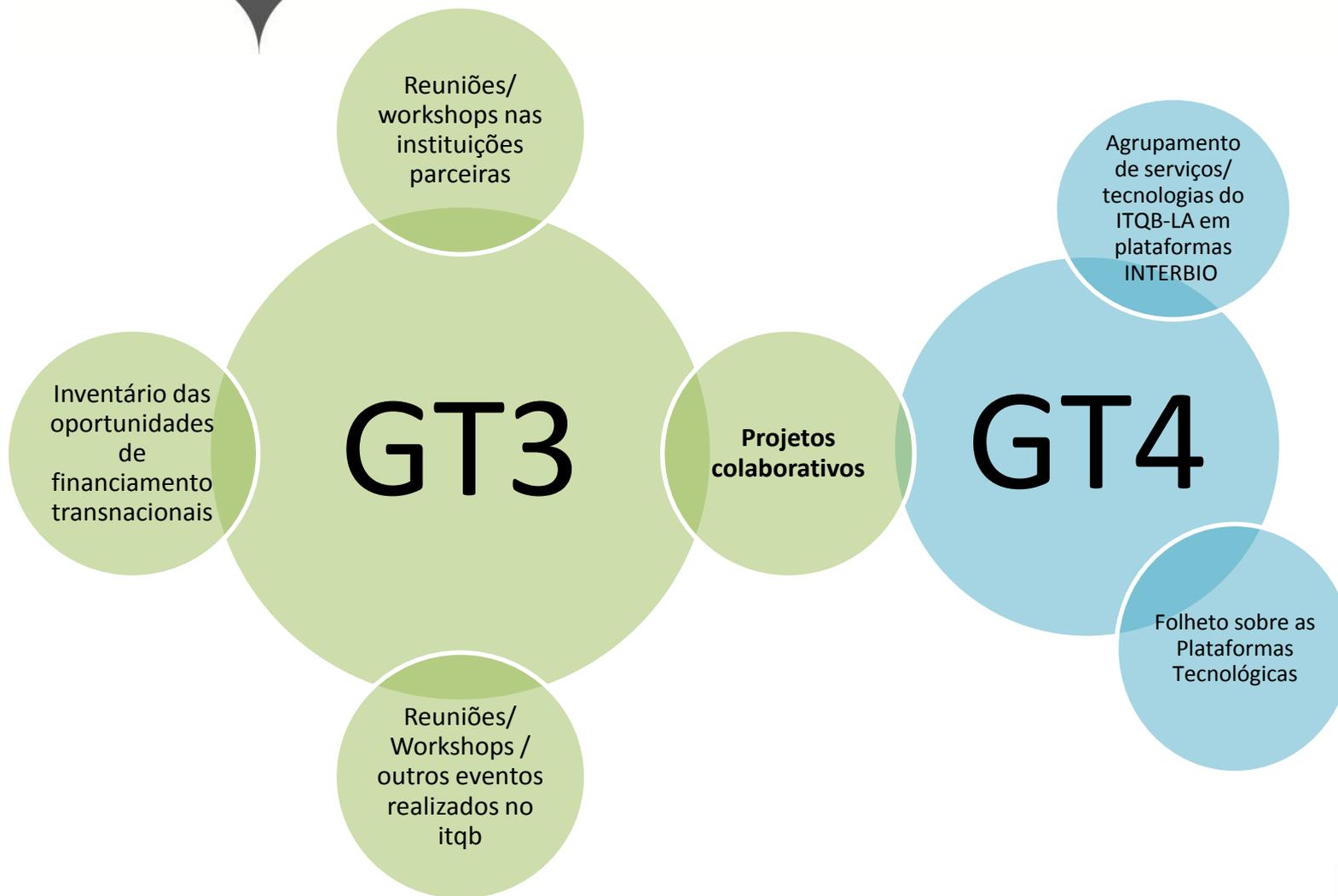
Bolseira do projeto: Cristina Oliveira

## Grupos de tarefas do ITQB



\* – O ITQB não obteve financiamento para o GT5

# GT3 em destaque – promoção da interdisciplinaridade



# GT3- Reuniões/ workshops nas instituições parceiras

**Simpósio  
Frontiers in  
Chemical  
Biology**  
(ITQB,  
Abril 10)

**Seminário  
INTERBIO**  
(ITQB,  
Maio 10)

Meeting  
*Young Scientist Day*  
(Bordéus, Maio 10)

*2nd Biotechnology and  
Healthcare Euro-Regional  
Meeting*  
(Montpellier, Julho 10)

*Workshop NanoBiotechnology & IT for Health*  
(Barcelona, Outubro 10)

**Seminário  
INTERBIO**  
(ITQB,  
Novembro 10)

**Seminário  
INTERBIO**  
(ITQB,  
Janeiro 11)

Meeting  
*Looking to the future*  
(Toulouse, Fevereiro 11)

**Simpósio  
Frontiers in Protein  
Research**  
(ITQB, Maio 11)

Scientific workshop  
*Microfluids from single  
molecule to cell biology*  
(Bordéus, Junho 11)

**Summer School  
NMR  
applications in  
Protein Research**  
(ITQB, Setembro 11)

*Research to Business  
in Health Sciences  
and Technologies*  
(Valência, Novembro 11)

**Próximo evento:  
Workshop  
'Two-faces of Science  
Communication'**  
ITQB, 19-23 Março 2012

Meeting  
*Forging Partnerships*  
(Valência, Janeiro 10)

# GT3- Reuniões/ Workshops / outros eventos realizados no itqb



## Simpósio 'Frontiers in Chemical Biology'

12 Abril 2010

Delegação do  
IECB Institute  
Européen de Chimie  
et Biologie  
(Bordéus)

16 apresentações

Investigadores do  
IEBC e do ITQB

## Seminários Interbio

Maio 2010

**Francesc Palau**  
(CSIC, Valência)

Novembro 2010  
**Peter Faller**  
(Université Paul  
Sabatier, Toulouse)

Janeiro 2011  
**Jean Jacques  
Toulmé**  
(EICB, Bordéus)

## Simpósio 'Frontiers in Protein Research'

5-7 Maio 2011

10 oradores  
Interbio

140  
participantes

Meeting dos  
GTs

35 posters  
apresentados

## Summer School

'NMR applications  
in Protein Research'

22- 30 Setembro 2011

6 oradores  
Interbio

14 jovens  
investigadores  
Interbio

80  
participantes

32 posters  
apresentados

## Evento futuro

### Workshop

'Two-faces of  
Science  
Communication'  
19-23 Março 2012

# Divulgação das atividades

## Cartaz de divulgação

**INTERBIO Symposium**  
**Frontiers in Protein Research**  
ITQB Oeiras | 5-7 May 2011

**May 5**  
Protein Biogenesis & Folding

**May 6**  
Enzymes & Catalysis  
Membrane Proteins

**May 7**  
Structural & Computational Biology  
Proteins in Systems

www.itqb.unl.pt

## Webpage ITQB

<http://www.itqb.unl.pt/about-us/institutional-relationships/interbio>

Interbio

Partners

Initiatives

Documents

ITQB events

**Interbio** is a consortium of research institutions from Southwest Europe, funded for 2.5 years in 1.9 million euros under SUDOE Programme. The consortium's main objective is to develop interdisciplinary research in the interface between chemistry and life/health sciences following three main axes, promote interdisciplinary research collaborations, gather expertise and optimize access to technological platforms, and support technology transfer and social utilization of knowledge, namely through SMEs.

... Université Paul Sabatier (Toulouse), and includes four main partners; Instituto Tecnológico - ITQB, Institut Européen de Chimie et de Biologie (Bordeaux), ... and Economía del Conocimiento - FIVEC (València), e o BiolRegio da ... Instituto Gulbenkian de Ciência, Instituto de Biologia Experimental e ... pharmaceutical company Alliana are among the number of associated partners.

NEW INTERBIO Newsletter Issue 3

## Galeria de fotografias

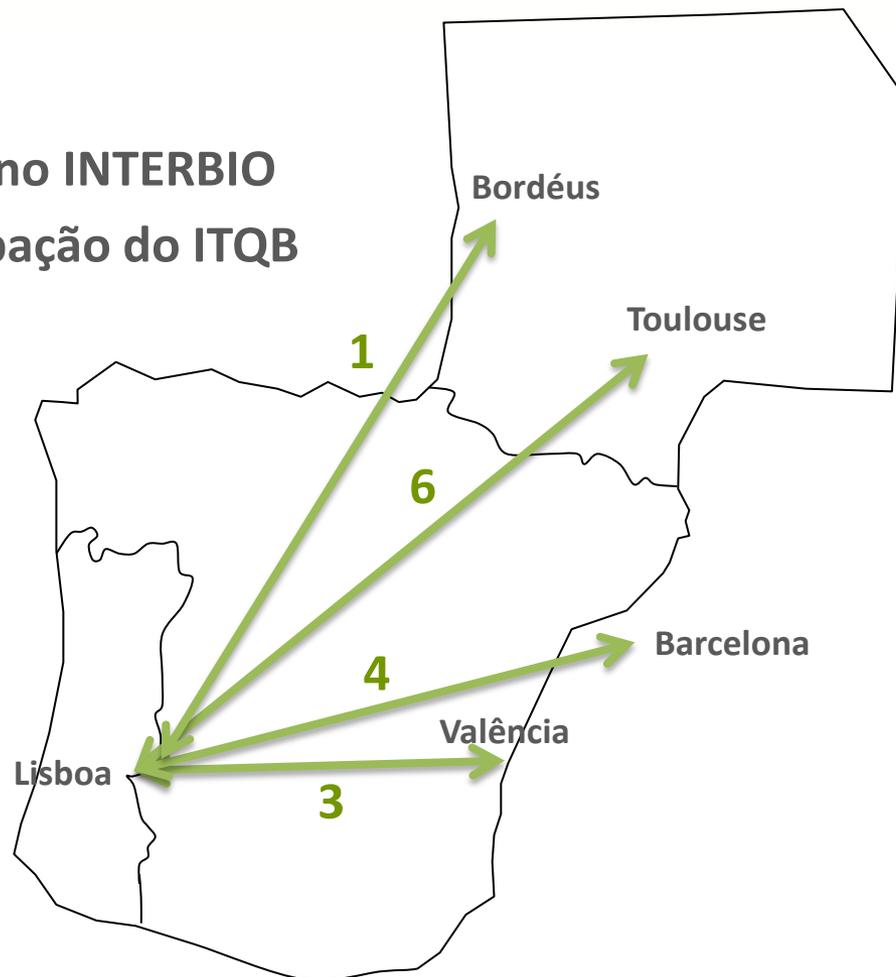
### Summer School



## GT3 - Projetos colaborativos

19 Projetos colaborativos realizados no INTERBIO  
- 14 desses projetos com participação do ITQB

Participação em **74%**  
dos projetos colaborativos



| Título  | Instituição A                         | Instituição B                       | Grupo de investigação                                | Investigador(es)                |
|---|---------------------------------------|-------------------------------------|--|---------------------------------|
| Using metabonomics to understand fatty acid oxidation disease   | CIFP (Valência)                       | ITQB                                | Biochemistry Folding & Stability<br>C. Gomes         | Bárbara Henriques               |
| Proteomic analysis of celular responses to protein-aggregation-mediated stress  | UAB (Barcelona)                       | ITQB                                | Mass Spectrometry - A. Coelho                        | Carmen Muñoz                    |
| Nanochannels for single molecule studies  | ITQB                                  | IBEC (Barcelona)<br>UPS (Toulouse)  | Single Molecular Processes<br>Yann Astier            | Yann Astier                     |
| The MicroRNAs in Eucalyptus wood world  | UPS                                   | ITQB                                | Plant Cell Biotechnology - P. Fevereiro              | Jorge Paiva                     |
| Molybdenum complexes containing chiral oxazoline ligands: coordination and catalysis                                    | ITQB                                  | UPS (Toulouse)                      | Homogeneous Catalysis<br>B. Royo                     | Jose Brito Castro               |
|   |                                       |                                     |  | Beatriz Royo                    |
| Studying functional diversification and evolution of regulatory sequences after a gene duplication event                | UPS (Toulouse)                        | IGC                                 | Evolution and Development                            | Elio Sucena                     |
| Structural and functional aspects of the Cu/Fe-amyloid-beta complex   | UPS (Toulouse)                        | ITQB                                | Biochemistry Folding & Stability<br>C. Gomes         | Vinda de investigador convidado |
| Molecular Simulations of Hemagglutinin from Influenza virus   | ITQB                                  | UAB (Barcelona)                     | Protein Modelling - C. Soares                        | Bruno Victor                    |
| Stabilome E. coli   | ITQB                                  | UPS (Toulouse)                      | Control of Gene Expression - C. Arraiano             | Clémentine Dressaire            |
|   |                                       |                                     |  | Cecília Arraiano                |
| Invasiveness of pneumococcal serotypes and clones circulating in Catalonia during heptavalente conjugate vaccine period | Hospital Sant Joan de Deu (Barcelona) | ITQB                                | Molecular Genetics - H. Lencastre                    | Vinda de investigador convidado |
| Study of the influence of peptide flexibility on metal ion coordination properties                                      | ITQB                                  | Barcelona                           | Bioinorganic Chemistry - Peptide design - Olga Irazo | Olga Irazo                      |
| Investigating the subcellular trafficking of human recombinant proteins expressed in plants                             | ITQB                                  | Universitat Politècnica de Valencia | Plant Cell Biology - R. Abranches                    | Ana Rita Campos                 |
| Evaluation of mitochondrial beta-oxidation flavoenzymes in a cellular model of Friedreich ataxia                        | CSIC (Valência)                       | ITQB                                | Biochemistry Folding & Stability<br>C. Gomes         | Vinda de investigador convidado |
| Studies on human S100 protein-aptamer complexes   | IECB                                  | ITQB                                | Biochemistry Folding & Stability<br>C. Gomes         | Sofia Carvalho                  |

# GT5\* – Transferência de Tecnologia



## Participação em eventos

- *2nd Biotechnology and Healthcare Euro-Regional Meeting*  
(Montpellier, Julho 2010)

- *Research to Business in Health Sciences and Technologies*  
(Valência, Novembro 2011)

### Biodevices

representada pelo seu CEO Luís Meireles

### GenIbet

representada através de um poster apresentado por  
Alexandra Veiga

### Officer of Technology Transfer

Bruno Reynolds

### Technology Platform - Proteomics

Ana Coelho

### Technology Platform - Bioinformatics

Pedro Fernandes

## White Book on Technology Transfer

- Preparação de resposta a questionário sobre transferência de tecnologia em Portugal, para elaboração do  
*White Book on Technology Transfer*

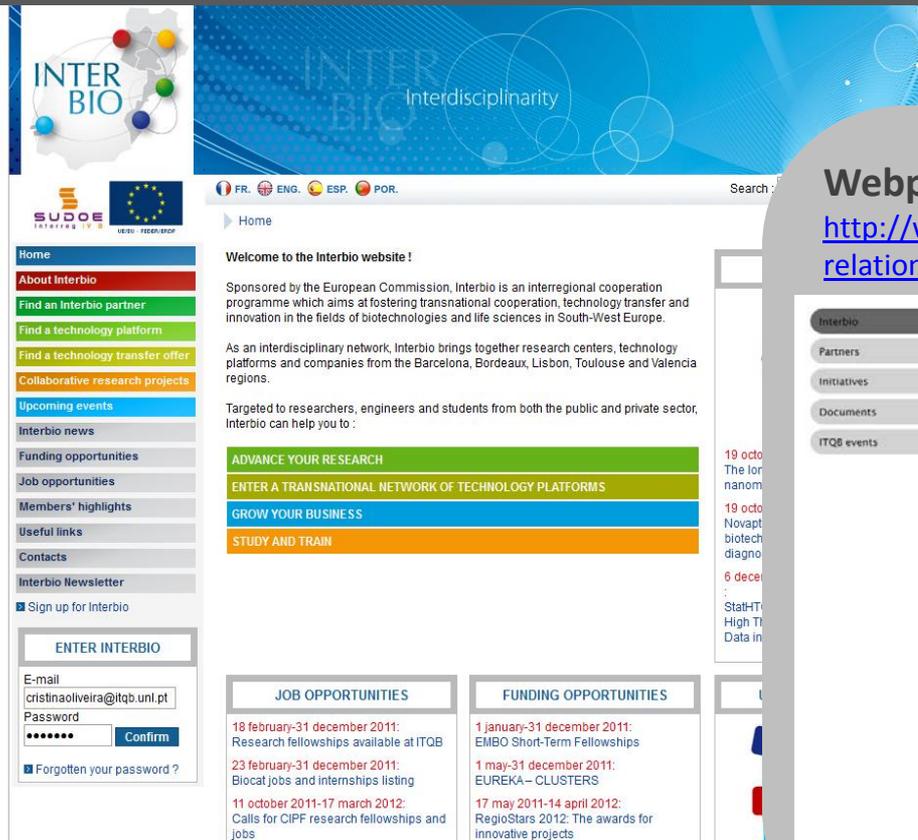
Contactos com: IBET, APBio, outros elementos necessários ao preenchimento do questionário (IST, INETI)

\* – O ITQB não obteve financiamento para o GT5

# GT7- divulgação, comunicação e promoção

## Divulgação e comunicação online

Website oficial - <http://www.interbio-sudoe.eu/>



The screenshot shows the official Interbio website. The header features the Interbio logo and the word "Interdisciplinarity". Below the header, there are navigation links for Home, About Interbio, Find an Interbio partner, Find a technology platform, Find a technology transfer offer, Collaborative research projects, Upcoming events, Interbio news, Funding opportunities, Job opportunities, Members' highlights, Useful links, and Contacts. A sidebar on the left contains a newsletter sign-up form. The main content area includes a welcome message, a description of the program, and several highlighted sections: "ADVANCE YOUR RESEARCH", "ENTER A TRANSNATIONAL NETWORK OF TECHNOLOGY PLATFORMS", "GROW YOUR BUSINESS", and "STUDY AND TRAIN". There are also sections for "JOB OPPORTUNITIES" and "FUNDING OPPORTUNITIES" with specific dates and descriptions.

## Webpage ITQB -

<http://www.itqb.unl.pt/about-us/institutional-relationships/interbio>



The screenshot shows the ITQB webpage about Interbio. The header features the ITQB logo and the word "Interbio". Below the header, there are navigation links for Interbio, Partners, Initiatives, Documents, and ITQB events. The main content area includes a large banner with the Interbio logo and the ITQB logo. Below the banner, there is a text block describing Interbio as a consortium of research institutions from Southwest Europe, funded for 2.5 years in 1.9 million euros under SUDOE Programme. The text describes the consortium's main objective and its three main axes. Below the text, there is a list of partners and a section for the steering committee and scientific committee at ITQB.

# INTERBIO Newsletter 1



## Newsletter 1 – Outubro 2011

Interbio Symposium  
'Frontiers in Protein Research'

ITQB (Oeiras- Portugal)  
5-7 May 2011



### "Frontiers in Protein Research", an Interbio symposium at ITQB (May 5-7 2011 - Lisbon)

The international Interbio Symposium 'Frontiers in Protein Research' will take place at the Instituto de Tecnologia Quimica e Biologica (ITQB) from 5-7 May 2011. In the unique setting of the town of Oeiras, located at the Tagus river mouth and the Estoril beach coast, just outside Lisbon, this meeting will cover recent progresses in different areas of protein research. Gathering mainly experts working within one of the nodes of the Interbio network, this 3-days symposium is organised in five thematic sections whose broad coverage will highlight the unique challenges of the protein world in biological sciences, biomedicine and technological applications. [Read more...](#)

### Scientific Highligts

TOULOUSE  
VALENCIA  
BARCELONA  
LISBON  
BORDEAUX

A strong development of White Biotechnology in Toulouse [Learn more...](#)

Artificial pancreas: advances, challenges and opportunities [Learn more...](#)

Feedback on Interbio cross-border research projects, by Antoni Homs Corbera (IBEC) [Learn more...](#)

Silencing genes in bacteria: Target-dependent small RNA regulation pathway uncovered [Learn more...](#)

The ARNA Lab in Bordeaux [Learn more...](#)

### Funding Opportunities

8 new calls for proposals available now on the Interbio website ! [Learn more...](#)

### Studentship and Job Opportunities

TOULOUSE  
VALENCIA  
BARCELONA  
LISBON  
BORDEAUX

100 thesis proposals on the doctoral school Biology-Health-Biotechnologies of Toulouse [Learn more...](#)

Scientific writing course in Valencia [Learn more...](#)

Biocat jobs and internships listing [Learn more...](#)

Research fellowships available at ITQB [Learn more...](#)

Post-doctoral position in molecular biology at the ARNA Lab [Learn more...](#)

# INTERBIO Newsletter 2



## Newsletter 2 – Junho 2011

### Editorial

By Prof. Miguel S. Teixeira, Coordinator of Interbio Lisbon



The INTERBIO project, in the frame of the [INTERREG IVB South West Europe](#) programme, took the challenging objective of acting through three important and complementary vectors, in the spirit of the Lisbon strategy for turning Europe into a knowledge-based society. As such, the three main vectors are i) the establishment of collaborations to promote interdisciplinarity in the field of biosciences and the associated technologies, ii) the shared use of existing technology platforms and the common development of specialized equipment needed in life sciences and, iii) contribute more directly to the economical development of South West Europe, by taking actions in technology transfer processes. Among these three vectors, for this editorial, I chose to focus on the first one - interdisciplinarity in research, a cornerstone in biosciences research, and whose success within Interbio is well documented by the thirteen on-going projects, covering areas from RNA biochemistry in bacteria and plants, to chemical catalysis, passing through nanobiotechnology, chemical and structural biology and human diseases. [Read more...](#)

### Frontiers in protein research highlighted through an Interbio Symposium held in May in Lisbon



In the beginning of May, ITQB welcomed the Interbio symposium "Frontiers in Protein Research". With over 140 registered participants, this meeting showed the strength of the Interbio network in the field of protein science. According to the organizing committee, "the scientific diversity and high quality of scientists working in each node made it very easy to arrange a high standard scientific program that resulted in very high quality talks". [Read more...](#)

### Scientific Highlights

TOULOUSE  
VALENCIA  
BARCELONA  
LISBON  
BORDEAUX

Toulouse-Lisbon Interbio collaborative project "MicroRNA European project" [Learn more...](#)  
Researchers at Valencia Polytechnic University develop a [more...](#)  
An Interbio collaborative project with Bordeaux leads to FF  
How bacteria trick each other in their math [Learn more...](#)  
A molecule from oak wood to fight osteoporosis [Learn mo](#)

### Advanced Instrumentation and Technology

TOULOUSE  
TOULOUSE  
VALENCIA  
BARCELONA  
LISBON  
BORDEAUX

METATOUL: the metabolomics and fluxomics technology platform of Toul  
METATOUL: an Interbio breakfast for companies on July 1st 2011 in Toul  
Valencian Biobank La Fe: A success model of biobanks for biomedical re  
Technology platforms and major research infrastructures in Catalonia [Le](#)  
IBET viral vector platform [Learn more...](#)  
Liquid and solid NMR ranging from 300 to 800 MHz at IECB [Learn more...](#)

### Studentship and Job Opportunities

TOULOUSE  
BARCELONA  
LISBON  
BORDEAUX  
BORDEAUX  
BORDEAUX

100 thesis proposals on the doctoral school Biology-Health-Biotechnologies of Toulou  
Biocat jobs and internships listing [Learn more...](#)  
Research fellowships available at ITQB [Learn more...](#)  
Project leader positions at IECB, Bordeaux [Learn more...](#)  
PhD position in structural biology [Learn more...](#)  
Post-doctoral position in molecular modelling at IECB [Learn more...](#)

### Funding Opportunities

FP7 Cooperation Specific Programme: Be prepared for the WP 2012 calls - to be published in July 2011 [Learn more...](#)  
Innovative Medicines Initiative call for proposals - coming soon [Learn more...](#)  
RegioStars 2012: Awards for innovative projects [Learn more...](#)  
Academic exchanges between the University of Valencia and other foreign institutions 2011 [Learn more...](#)  
FP7 - ERA-NET projects - new search facility [Learn more...](#)  
EMBO Long-Term Fellowships [Learn more...](#)  
EUREKA-CLUSTERS [Learn more...](#)  
Marie Curie Intra-European Fellowships for career development (IEF) [Learn more...](#)  
Marie Curie Career Integration Grant (CIG) - NEW [Learn more...](#)



## Newsletter 3 – Outubro 2011



### Summer School on NMR Applications: Latest INTERBIO initiative at ITQB dedicated to protein research

From September 22nd to 30th, ITQB hosted the international [Interbio Summer School on Structural Biology](#) 'NMR applications in Protein Research'. For 2 weeks, fourteen participants within INTERBIO had the opportunity to focus on topics such as protein dynamics, protein-protein, protein-drug interactions and biomolecular Solid State NMR. [Read more...](#)

#### Scientific Highlights

- TOULOUSE A new mechanism of defense against infections [Learn more...](#)
- TOULOUSE "TULIP" laboratory of excellence in Toulouse [Learn more...](#)
- VALENCIA Intelligent nanoparticles fight against cancer [Learn more...](#)
- LISBON To sporulate or not to sporulate: Negative feedback loop controls positive auto-regulation in bacteria [Learn more...](#)
- BORDEAUX Over 200 000 beads from Bordeaux screened in Barcelona in the frame of Interbio [Learn more...](#)

#### Advanced Instrumentation and Technology Platforms

- TOULOUSE The NMR platform of the Institute of Pharmacology and Structural Biology (IPBS) [Learn more...](#)
- VALENCIA Valencia microclusters "VLC-CAMPUS: Valencia, International Campus of Excellence" [Learn more...](#)
- BARCELONA Technology platforms and major research infrastructures in Catalonia [Learn more...](#)
- LISBON ITQB Mass Spectrometry Platform [Learn more...](#)
- BORDEAUX The brochure about Interbio technology platforms is out !!! [Learn more...](#)

#### Funding Opportunities

- Marie Curie Initial Training Networks [Learn more...](#)
- Marie Curie International Research Staff Exchange Scheme (IRSES) [Learn more...](#)
- COST : European Cooperation in Science and Technology [Learn more...](#)
- RegioStars 2012: Awards for innovative projects [Learn more...](#)
- EMBO Long-Term Fellowships [Learn more...](#)
- EMBO Short-Term Fellowships [Learn more...](#)
- EUREKA-CLUSTERS [Learn more...](#)
- Marie Curie Intra-European Fellowships for career development (IEF) [Learn more...](#)
- Marie Curie Career Integration Grant (CIG) - NEW [Learn more...](#)
- FP7-NMP-2012-SMALL-6: Nanosciences, Nanotechnologies, Materials and new Production Technologies [Learn more...](#)
- FP7-NMP-2012-LARGE-6: Nanosciences, Nanotechnologies, Materials and new Production Technologies [Learn more...](#)
- FP7-NMP-2012-SME-6: Nanosciences, Nanotechnologies, Materials and new Production Technologies [Learn more...](#)

#### Studentship and Job Opportunities

- TOULOUSE Postdoctoral research fellow in synthetic organic chemistry [Learn more...](#)
- BARCELONA Biocat jobs and internships listing [Learn more...](#)
- VALENCIA Calls for CIPF research fellowships and jobs [Learn more...](#)
- LISBON Research fellowships available at ITQB [Learn more...](#)
- BORDEAUX Post-doctoral position in platelet/endothelial cell biology [Learn more...](#)

# Próximas atividades



## Exchanges between Technological platforms

- 'Mass Spectrometry Service Platform'

a partir de Dezembro 2011



## Bioinformatics course

- Training sessions

a partir de 2012



## Science Communication Workshop

- 'Two-faces of Science Communication'

19-23 Março 2012

# Propostas para o Futuro do INTERBIO



## 1. Assegurar a sustentabilidade das redes de cooperação já conseguidas

## 2. Aumento do número parceiros

- Incentivo à participação de novos parceiros, nomeadamente PME
- Ampliação das redes de transferência de tecnologia
- Equilíbrio na participação (natureza e nº de instituições envolvidas) em cada região

## 3. Novas atividades e iniciativas

- Grupos de trabalho sobre temas específicos incluindo membros dos diferentes grupos/ sectores
- Novas iniciativas/ temáticas
  - Educação e formação
  - Colaboração sector académico – sector empresarial
  - Comunicação