

News from above and below the

waves

CIIMAR's monthly NEWS LETTER

CIMAR
LABORATÓRIO ASSOCIADO

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All Aboard

Strategic thinking in an Associate Laboratory

In the month of March, CIIMAR celebrated its 10th anniversary! Ten years of discoveries and partnerships; with the creation of the associate laboratory on the way. When we think about the future, we should always remember CIIMAR's objectives; one of which is to "develop the public understanding of science". This newsletter within CIIMAR contributes to this important challenge. The better we communicate with each other, the better we reinforce the fabric and social coherence of the centre to then convey our ideas onto society. It is thus with a new step in that direction, the appearance of a newsletter in CIIMAR, symbolically called *waves* makes its debut. Let us all make it a space of debate and knowledge.



João Coimbra

Project of the Month

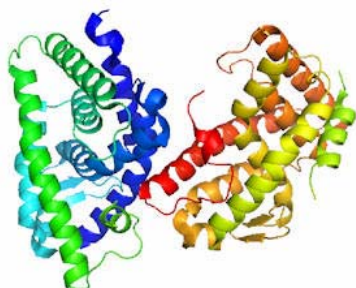
CIIMAR research lines in action

The modulation of retinoic acid signalling pathways by environmental pollutants in teleosts

PI: Miguel Santos (LETOX). LECEMA (F Castro) and LEGE (AAntunes) also participate.

Certain environmental chemicals are able to disrupt retinoid acid signalling pathways. Since retinoids play key functions in a vast diversity of living organisms, this project will use an innovative approach combining molecular biology tools, bioinformatics parameters to infer mechanism of disruption in an evolutionary context.

[More at www.ciimar.up.pt](http://www.ciimar.up.pt)



What the paper says

Journal Club

Animals thrive without oxygen at sea bottom

[R. Danovaro et al. BMC Biol. doi:10.1186/1741-7007-8-30; 2010](https://doi.org/10.1186/1741-7007-8-30)

Danovaro and colleagues' BMC Biology paper provides the first evidence of a metazoan life (Loricifera) cycle that is spent entirely in permanently anoxic sediments (of the Mediterranean Sea). They find that these metazoans live under anoxic conditions through an obligate anaerobic metabolism that is similar to that demonstrated so far only for unicellular eukaryotes and that they lack of mitochondria. The discovery of these life forms opens new perspectives for the study of metazoan life in habitats lacking molecular oxygen.



Organism in Focus

Scyliorhinus canicula



The European Lesser Spotted Dogfish is common throughout European coastal waters and is readily available through regional fisheries. As an experimental animal it is also well suited to holding in captivity as it feeds well and with its sedentary lifestyle can be kept in relatively small tanks unlike pelagic sharks, which need to swim constantly. As an elasmobranch fish it occupies an important position in the early evolutionary history of the vertebrates.

The sequencing of the *S.canicula* genome is also now underway which will provide an important future resource. In the LECOF group, *S.canicula* has been used as a study organism for investigating hydrostatic pressure adaptation and the evolution of the stomach and gastric related genes.

Jonathan Wilson (LECOF)

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*"Deus ao mar o perigo e o abismo deu,
Mas nele é que espelhou o céu."* F. Pessoa

Open Calls

Funding Opportunities

1. Transnational cooperation

CYTED-Iberian American Program for Science Technology and Development

Funding applications for Thematic Networks and Research Consortium Projects in the area of Sustainable Development, Global Change and Ecosystems

Information at: <http://alfa.fct.mctes.pt/apoios/cooptrans/cyted/>

Dead line: 20 April 2010.

Pessoa Program - Agreement between Portugal and France

Applications for subsidies to support the implementation of joint research projects in all areas of science; it funds only research mobility.

Information at : <http://alfa.fct.mctes.pt/apoios/cooptrans/pessoa/2010/>

Dead line: 17 May 2010

2. 7^o PQ of ID&T - Program People - Marie Curie actions

Applications to Intra-European Fellowships (IEF), International Incoming Fellowships (IIF) e International Outgoing fellowships (IOF) Information: <http://alfa.fct.mctes.pt/apoios/mariecurie/>.

Deadline: 17 August 2010

3. ON.2 – O Novo Norte, Promoção e Capacitação Institucional - Internacionalização

Applications for financing: (i) participation of entities from the North Region in networks or organizations of international scope, (ii) organisation of international meetings in North Portugal and (iii) development of preparatory actions for future projects of international cooperation.

Info: http://www.ccr-norte.pt/novonorte/pci_1_2010.pdf

Susana Moreira

This month at...

Events in the calendar

► **1/30th April Exhibition:** "Há pesca em Vila do Conde"- 9-19 h. CIIMAR entrance lounge.

► **26 Seminar Oceanus**– To be announced

► **26/30th April, Advanced course on MARINE ECOTOXICOLOGY.** CIIMAR e ICBAS.

► **30th April International Workshop:** "New tools for better planning, response management and damage assessment in HNS, Inert and Oil Spills", ARCOPOL Project, European Agency of Marine Safety, Lisbon.

More at <http://www.arcpol.eu/eventos.aspx?t=A>

Paper of the month

CIIMAR publishes

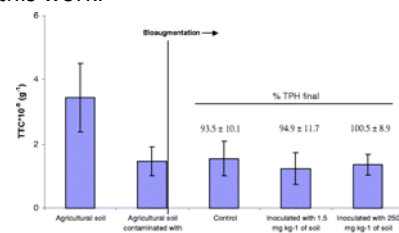
Mesocosm trials of bioremediation of contaminated soil of a petroleum refinery: comparison of natural attenuation, biostimulation and bioaugmentation

Nazaré et al., 2010. **CS&B Lab**

Environmental Science and Pollution Research (2010)

DOI 10.1007/s11356-010-0318-y

Contamination with petroleum hydrocarbons (PHC) is a global problem with environmental implications. Physico-chemical treatments can be used for soil cleanup, but they are expensive, and can have implications for soil structure and environment. Otherwise, biological remediation treatments are cost-effective and restore soil structure. Several remediation experiments have been carried out in the lab and in the field; however, there is the challenge to achieve as good or better results in the field as in the laboratory. In the ambit of a project aiming at investigating suitable biological remediation approaches for recovering a refinery contaminated soil, we present here results obtained in bioremediation trials. The approaches biostimulation and bioaugmentation were tested, in parallel, and compared with natural attenuation. For this purpose, mesocosm experiments were carried out inside the refinery area, which constitutes a real asset of this work.



(IN) FORMATION BOGA



The Aquatic Organisms Bioterium (BOGA) is implementing several regulations in order to comply with the directions from Direcção Geral de Veterinária for obtaining accreditation for animal experimental research. The beginning of this new stage will include the search for an image for BOGA, both through the launch of BOGA's website and through a logo. In this way, we would like to inform all of you that we will launch a contest soon entitled "À pesca do logotipo" ("Fishing for a Logo"), where we hope everyone will participate to help us find an image that transmits the wide range of research taking place in our bioterium. To participate make note of the contest rules that will be available soon. And there will be **excellent** prizes!

Hugo Santos

Have your say in *waves*

Contributions welcome. Contact Vitor Vasconcelos, Filipe Castro or Jonathan Wilson @ waves.ciimar@gmail.com