



IMM 2010 HIGHLIGHTS

INSTITUTO DE MEDICINA MOLECULAR
FACULDADE DE MEDICINA DA UNIVERSIDADE DE LISBOA

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INSTITUTO DE MEDICINA MOLECULAR (IMM)
FACULDADE DE MEDICINA DA UNIVERSIDADE DE LISBOA

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Edition

1000

Photos

IMM

-

May, 2011

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FACULDADE DE MEDICINA DA UNIVERSIDADE DE LISBOA

IMM AT A GLANCE

3 RESEARCH PROGRAMMES

Cell and Developmental Biology
Immunology and Infectious Diseases
Neurosciences

29 RESEARCH UNITS

2 EXTERNAL UNITS

2 COMPANIES

6 TECHNOLOGICAL FACILITIES

379 RESEARCHERS IN 2010

179 PhD holders

1 PHD PROGRAMME

19 new PhD students in 2010

58 RESEARCH GRANTS STARTING IN 2010

40 Public National - FCT
7 Other National
5 EC-FP7
6 Other International

263 PEER-REVIEWED SCIENTIFIC PUBLICATIONS IN 2010

19 in journals with > 10 impact factor

3 ERC LAUREATES

1 EURYI LAUREATE

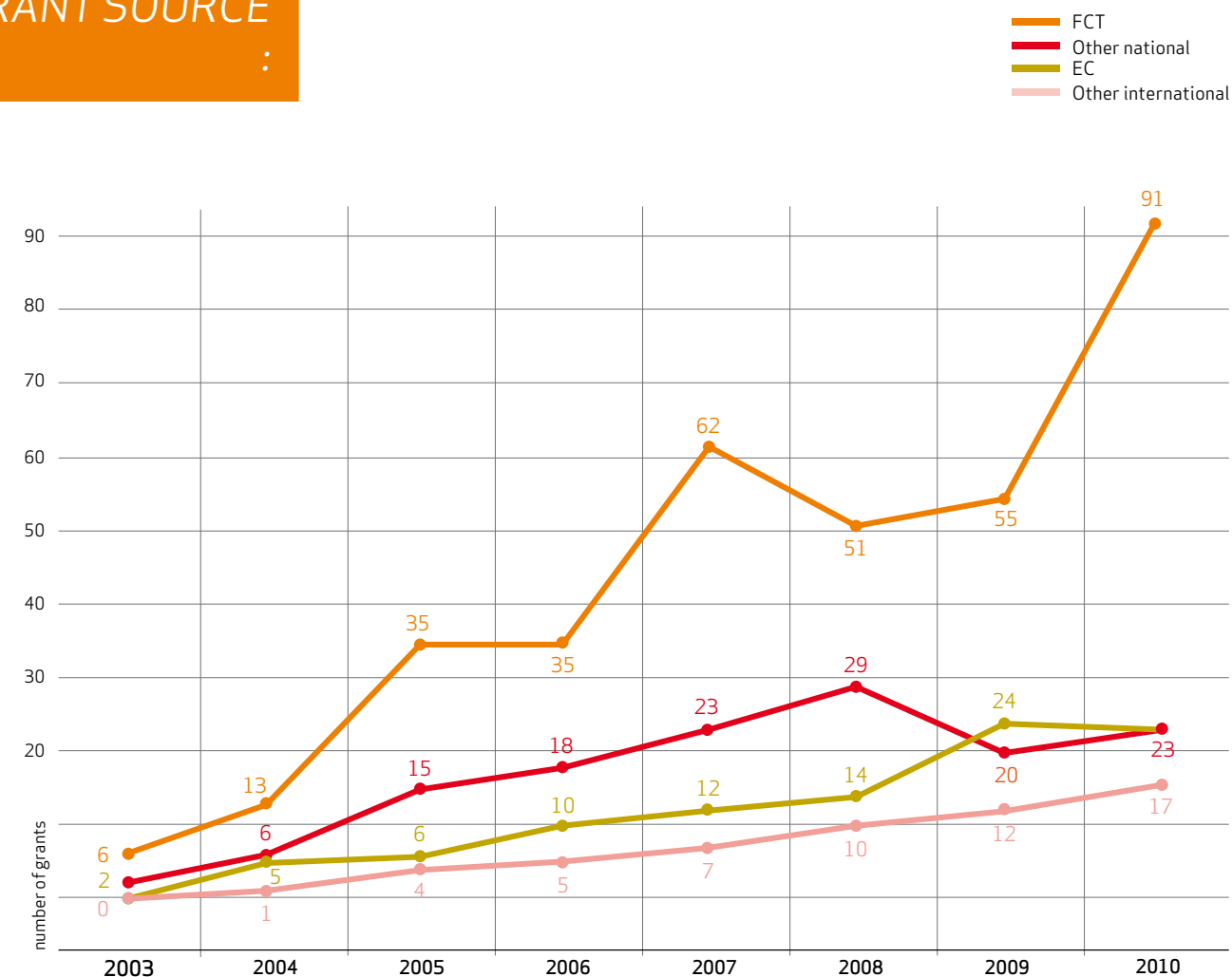
1 HOWARD HUGHES SCHOLAR

1 EMBO MEMBER

1 EMBO YOUNG INVESTIGATOR

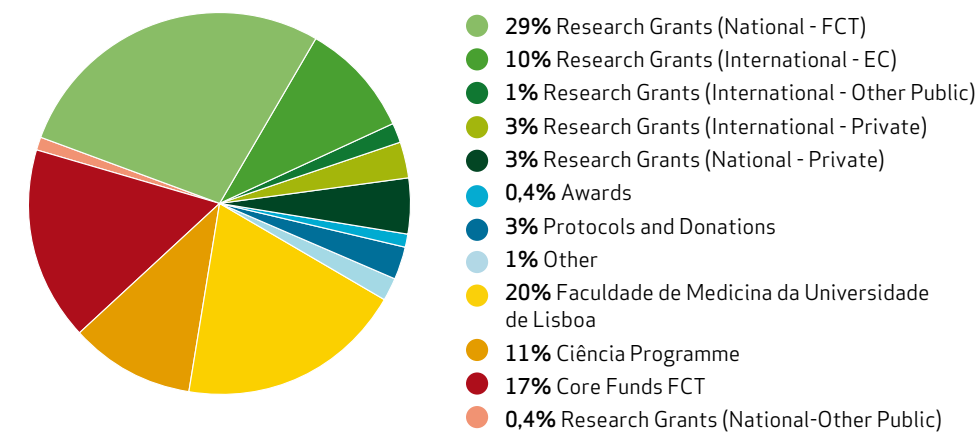
1 BILL & MELINDA GATES FOUNDATION GRANTS

EVOLUTION OF GRANT SOURCE



IMM FUNDING 2010

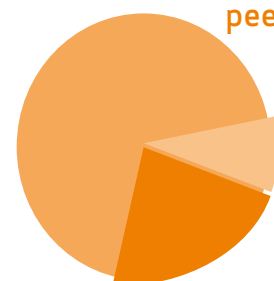
Expenditure in 2010
by Funding Source
Total expenditure:
9,209,736 €



RESEARCH HIGHLIGHTS

PAPERS
2010
:

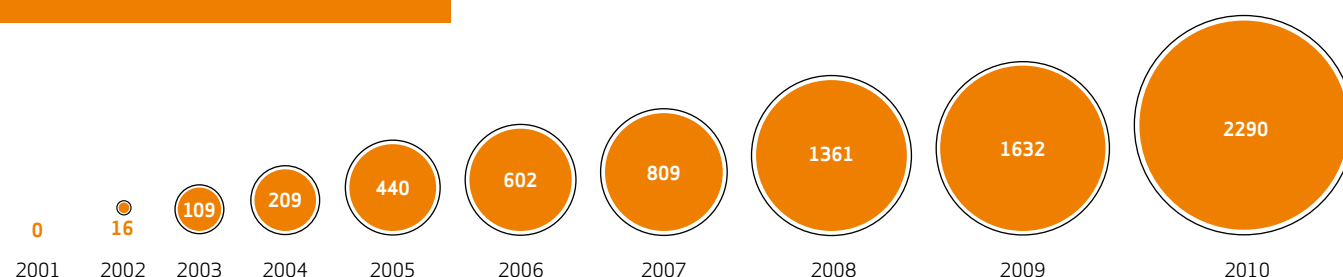
263
papers published in
peer-reviewed journals:



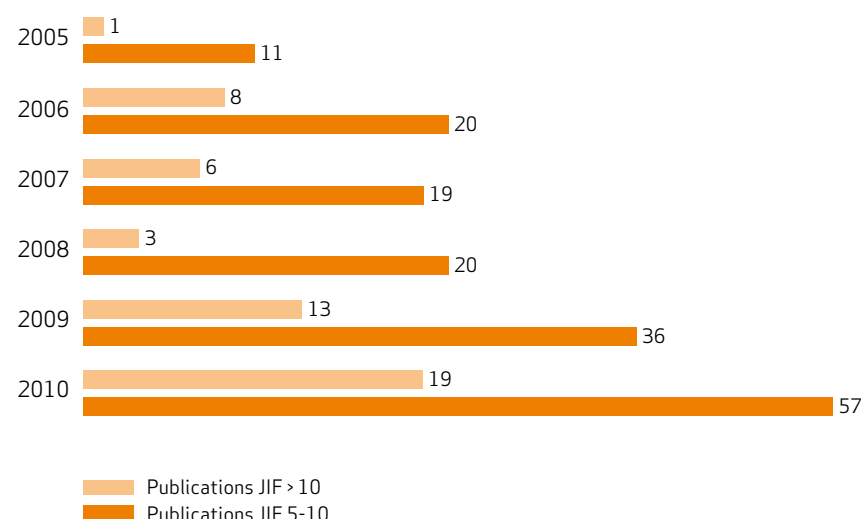
19 publications in journals with an impact factor higher than 10

57 publications in journals with an impact factor between 5 - 10

CITATIONS
PER YEAR
:



IMPACT FACTOR
OF PUBLICATIONS
PER YEAR
:



10 MOST
CITED ARTICLES
2001 -2010
:

Grossman Z, Meier-Schellersheim, M., Sousa AE, Victorino RM and Paul WE (2002) CD4+ T-cell depletion in HIV infection: are we closer to understanding the cause? *Nat Med.* **8**, 319-321 (**Times cited: 243**) (Journal IF: 27.553)

Di Fonzo A, Rohe CF, Ferreira RJ, Chien HF, Vacca L, Stocchi F, Guedes L, Fabrizio E, Manfredi M, Vanacore N, Goldwurm S, Breedveld G, Sampaio C, Meco G, Barbosa E, Oostra BA and Bonifati V (2005) A frequent LRRK2 gene mutation associated with autosomal dominant Parkinson's disease. *Lancet* **365**, 412-415 (**Times cited: 209**) (Journal IF: 28.409)

Sousa AE, Carneiro J, Meier-Schellersheim M, Grossman Z, and Victorino RM (2002) CD4 T cell depletion is linked directly to immune activation in the pathogenesis of HIV-1 and HIV-2 but only indirectly to the viral load. *J Immunol.* **169**, 3400-3406 (**Times cited: 204**) (Journal IF: 6.000)

Ribeiro JA, Sebastião AM and De Mendonça A (2002) Adenosine receptors in the nervous system: pathophysiological implications. *Prog Neurobiol.* **68**, 377-392 (**Times cited: 186**) (Journal IF: 9.130)

Emre M, Aarsland D, Brown R, Bum DJ, Duyckaerts C, Mizuno Y, Broe GA, Cummings J, Dickson DW, Gauthier S, Goldman J, Goetz C, Korczyn A, Lees A, Levy R, Litvan I, McKeith I, Olanow W, Poewe W, Quinn N, Sampaio C, Tolosa E and Dubois B (2007) Clinical diagnostic criteria for dementia associated with Parkinson's disease. *Movement Dis.* **22**, 1689-1707 (**Times cited: 169**) (Journal IF: 3.898)

Duarte A, Hirashima M, Benedito R, Trindade A, Diniz P, Bekman E, Costa L, Henrique D and Rossant J (2004) Dosage-sensitive requirement for mouse D114 in artery development. *Gene Dev.* **18**, 2474-2478 (**Times cited: 163**) (Journal IF: 13.623)

Carmo-Fonseca M (2002) The contribution of nuclear compartmentalization to gene regulation. *Cell* **108**, 1-20 (**Times cited: 123**) (Journal IF: 31.253)

Stamm S, Riethoven JJ, Le Texier V, Gopalakrishnan C, Kumanduri V, Tang YS, Barbosa-Morais NL and Thanaraj TA (2006) ASD: a bioinformatics resource on alternative splicing *Nucleic Acids Res.* **34** (Special Issue), D46-D55 (**Times cited: 109**) (Journal IF: 6.878)

Santos NC, Figueira-Coelho J, Martins-Silva J and Saldanha C (2003) Multidisciplinary utilization of dimethyl sulfoxide: pharmacological, cellular, and molecular aspect. *Biochem. Pharmacol.* **65**, 1035-1041 (**Times cited: 107**) (Journal IF: 4.838)

Healy DG, Falchi M, O'Sullivan SS, Bonifati V, Durr A, Bressman S, Brice A, Aasly J, Zabetian CP, Goldwurm S, Ferreira JJ, Tolosa E, Kay DM, Klein C, Williams DR, Marras C, Lang AE, Wszolek ZK, Berciano J, Schapira AH, Lynch T, Bhatia KP, Gasser T, Lees AJ, Wood NW; International LRRK2 Consortium (2008) Phenotype, genotype, and worldwide genetic penetrance of LRRK2-associated Parkinson's disease: a case-control study. *Lancet Neurol.* **7**, 583-590. (**Times cited: 106**) (Journal IF: 18.126)



2010 AWARDS

Pessoa Award 2010
Maria Carmo-Fonseca

Crioestaminal Award 2010
Luísa Figueiredo

Chromatin and antigenic variation: The role of histone H1 in gene regulation in African trypanosomes.

Young Investigator EMBO 2010
Bruno Silva-Santos

Installation Grant EMBO 2010
Luísa Figueiredo

Michael J. Fox Rapid Response Innovation Award 2010
Tiago F. Outeiro

Deciphering the molecular effects of alpha-synuclein in the nucleus: DNA binding and transcriptional dysregulation

Bill & Melinda Gates Foundation, Grand Challenges Explorations, Programme 2010
Miguel Prudêncio

A New Whole-Organism Vaccine Against Malaria

BES Innovation Award in Health Technology 2010
Luís Graça, Marta Monteiro, David Cristina

Acellera Therapeutics – Cellular therapy as prevention of liver transplant rejection

Calouste Gulbenkian Foundation Award on the Frontiers in Life Sciences 2009
Ivo Martins

The interplay between lipid droplets, RNA and the capsid protein during dengue virus assembly.

Pulido Valente Science Award 2009
Ana Silva

PTEN posttranslational inactivation and hyperactivation of the PI3K/Akt pathway sustain primary T cell leukemia viability.

ONGOING PARTNERSHIPS



Centro Académico de Medicina de Lisboa: IMM is associated with the Faculdade de Medicina da Universidade de Lisboa and with the Santa Maria teaching hospital through the Lisbon Academic Medical Centre of Lisbon (CAML). CAML is a newly formed consortium that aims at promoting the academic dimension in clinical practice, renewing the teaching hospital concept.



IMM is also a partner of the **Harvard Medical School – Portugal** programme, sponsored by the Portuguese Fundação para a Ciência e a Tecnologia. This programme aims at promoting translational and clinical research and the dissemination of medical and health information.



IMM and Inserm, aware of the need to develop international cooperation in the fields of life sciences, health research and health care, assigned an agreement in 2010 to establish a partnership which builds on sound research expertise of both institutions to deliver scientific international workshops, short-term staff exchanges and research mentoring for MD students.



IMM fosters scientific ideas to turn into products and technologies that make difference in health care. Presently, there are three companies incubated at IMM: **Genomed** and **Technophare** (see Companies).



IMM is one of the leading founders of the **Health Cluster Portugal**, a consortium that promotes initiatives to increase the national competitiveness, innovation and technology in health care.

ADVANCED TRAINING

PhD STUDENTS AT IMM

In the summer of 2010 we launched the **Lisbon Academic Medical Centre Doctoral Programme**, a joint PhD Programme between IMM, Faculdade de Medicina da Universidade de Lisboa (FMUL) and the Santa Maria University Hospital (HSM-CHLN). This programme was inspired by the IMM practices, the goal being to have a programme focused on the excellence of the research proposals, which features a flexible and modular training component. The three partner institutions, FMUL, IMM and HSM-CHLN, actively participated in the design of the CAML PhD Program, using the existing resources and synergies to create an attractive and stimulating environment for doctors and researchers to develop their doctoral thesis.

PhD STUDENTS IN NUMBERS :

114 Students

89 Students with fellowships from Fundação para a Ciência e Tecnologia (FCT)

Other PhD fellowships:

1 Axa Research Fund

2 Marie Curie Initial Training Network

3 MD Residents (PFMA-FCT)

2 IMM

16 Medical Doctors

18 PhD Thesis Defenses in 2010

SCIENCE & SOCIETY 2010



1.



2.



3.

Legend:

1. Workshop “Science, Politics and the Media”. Researchers, journalists and policy makers gathered to debate the interactions between these different communities. April, 2010

2. Brain Awareness Week 2010. Students Discover the Brain in IMM Neurosciences Open Day. March, 2010

3. “Online Scientists”: an IMM initiative during the Portuguese Science and Technology Week aiming to promote the interaction between scientists and the general public using the social networks. November, 2010

Promoting an informed discussion on health and biomedical research issues is a priority for the IMM. This has been achieved through the engagement of researchers and non-scientific partners in the IMM’s Outreach programme. The programme includes training for younger generations, an Annual School Visits scheme (which in 2010 benefited more than 385 students from all levels of schooling), using *web 2.0* (social networks) to promote dialogue and specific outreach projects, such as the Workshop “Science, Politics and the Media” or the hosting of the artistic residencies of Herwig Turk and Maria Manuela Lopes.

REGULAR COLLABORATION WITH THE MEDIA

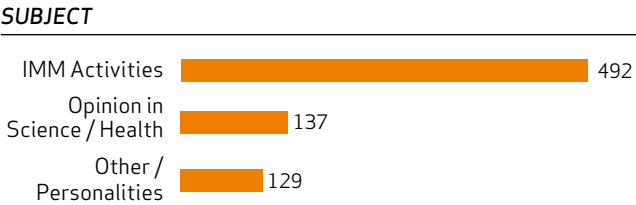
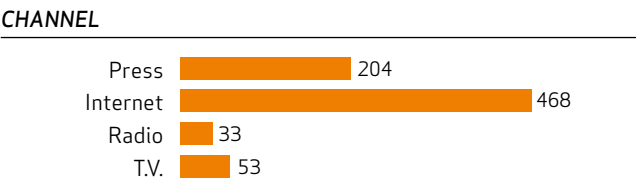
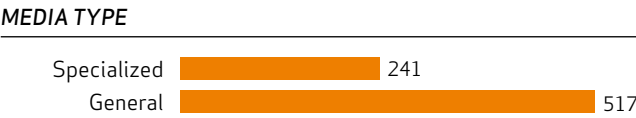
14-15/week
Participations in the media

15-20 / year
Press releases

> 50 /year
Media visits to IMM

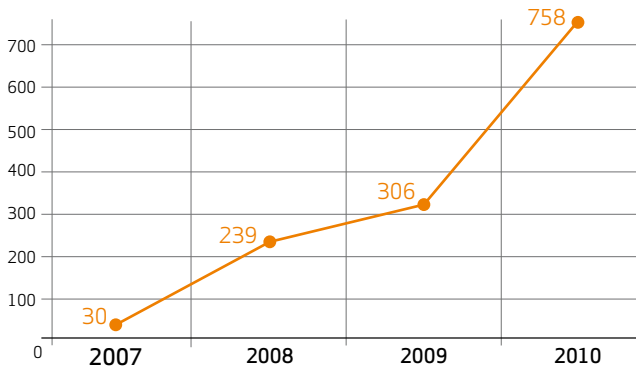
1 / year
Training course for researchers

IMM PARTICIPATION IN THE MEDIA (2010)



A major effort is also placed in regular collaboration with the media, in particular in the promotion of dialogue and opinion making in health and biomedicine, as well in highlighting the research developed by IMM teams. A proactive attitude towards the media includes regular production of press releases and articles, support to press conferences and media visits at IMM, contact management and media training for researchers.

EVOLUTION OF IMM PRESENCE IN THE MEDIA



1 YEAR IN THE LIFE OF IMM

JAN | 22-23

FEB | 18

MAR | 17

30 | APR | 10

13 | 15

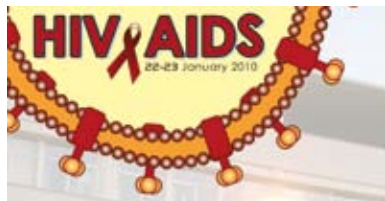
MAY | 08

14

2010

22-23
JANUARY

In the scientific meeting “HIV/AIDS: Closing the Gap between Basic Research and Clinical Practice” clinicians and researchers worldwide present and debate the state of the art in HIV/AIDS research.


18
FEBRUARY

PhD student Ana Silva is awarded the Prof. Francisco Pulido Valente Ciência Award 2009, for the study that identified a novel mechanism of leukemia development in humans.


17
MARCH


EUA Patent Office grants Portuguese researchers a patent on a novel strategy to prevent malaria. Maria Mota lead the research in the basis of it.

30
MARCH

Holiday at the University: young children engage in science at IMM during the holiday Campus organized by the Social Services of the University of Lisbon.


10
APRIL


1st IMM Parkinson's Disease course for caregivers and family members

13
APRIL

Researchers Miguel Castanho, Marta Ribeiro, Isa Serrano and Henri Franquelim win Cotec's contest of entrepreneurs with a project that aims at developing an innovative test to evaluate the ability of molecules to get across cellular barriers to reach its cellular target.



photo by COTEC Portugal

15
APRIL

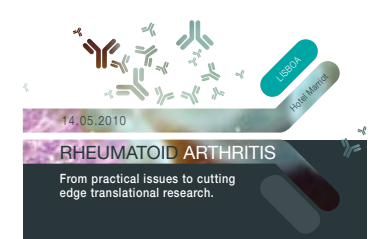
Workshop “Science, Politics and the Media” gathered together researchers, journalists and policy makers to debate the role of science in the public agenda.


8
MAY

IMM researchers run the Terry Fox Race, an initiative to raise awareness in the fight against cancer.


14
MAY

Meeting “Rheumatoid arthritis: from practical issues to cutting edge translational research”.



MAY 26 29 JUN 01 17 JUL 20 SEP 07 24 OCT 25 NOV 03

26
MAY

Award ceremony of the Fundação Calouste Gulbenkian Programme "Investigação na Fronteira das Ciências da Vida" where IMM researcher Ivo Martins received the 1st prize.



29
MAY

2nd IMM Teaching Course in Movement Disorders at IMM, targeted at medical residents in Neurology.



01
JUNE

IMM joins Facebook, LinkedIn and Twitter, as part of its commitment to engage science with the publics



17
JUNE

Renown oncologist Robert Maki (Memorial Sloan-Kettering Cancer Center, New York, USA) participate on the 2010 edition of the Oncology series, a seminar series dedicated to clinical investigation in cancer.

20
JULY

Directors of Inserm (France) and IMM sign the partnership agreement.



7
SEPTEMBER

Welcome party at the renewed Zebrafish Facility.



24
SEPTEMBER

IMM launched "The Fish Challenge" for teenagers at Researchers' Night 2010, in an initiative where scientists set the stage again with theater, music and other activities in 4 portuguese cities.



25
OCTOBER

Start up Acellera Therapeutics wins the health and Technology prize in the BES Innovation National Competition, based in research developed at IMM.



3
NOVEMBER

BioSafety Level 3 Laboratory opens its doors.



9
NOVEMBER

Bill & Melinda Gates Foundation awards researcher Miguel Prudêncio a Grand Challenges Exploration grant to develop a vaccine against malaria.



22-23
22-26

23

DEC 09

17

22-23 NOVEMBER

IV IMM PhD Students Meeting.



22-26 NOVEMBER

"Online Scientists": During the Portuguese Science and Technology Week 2010, IMM promotes a Facebook initiative where researchers and the facebook public talk about science.

23 NOVEMBER

Criostaminal Prize 2010 awarded to IMM researcher Luísa Figueiredo.



9 DECEMBER

Bruno Silva-Santos selected for Young Investigator of European Molecular Biology Organization (EMBO).



17 DECEMBER

IMM's Executive Director Camo Fonseca wins Prémio Pessoa 2010, one of the most prestigious awards of the Portuguese society.



Image from Expresso newspaper

