

# Harvard Medical School - Portugal

Program In Translational Research And Information

## 1º Simpósio Anual – 14 e 15 de Dezembro, CCB, Lisboa

O primeiro simpósio anual do programa **Harvard Medical School-Portugal** tem lugar nos próximos dias **14 e 15 de Dezembro**, no Pequeno Auditório do Centro Cultural de Belém, em Lisboa.

A entrada é livre e o simpósio está aberto à comunidade científica da biomedicina, médicos, estudantes de medicina e outros profissionais das ciências da saúde, assim como ao público interessado pelos temas a abordar.

O simpósio consta de oito conferências temáticas que introduzem alguns dos temas mais actuais da biomedicina, da imunologia às neurociências e às doenças infecciosas, passando pelo cancro, diabetes, alzheimer, o combate ao envelhecimento as doenças degenerativas e as ameaças epidémicas.

**Ron DePinho** (Dana-Farber Cancer Institute and Harvard Medical School, Boston), **Benedita Rocha** (Necker Institute, Paris), **Adrianno Aguzzi** (Institute of Neuropathology, University Hospital of Zurich), **Nuno Sousa** (Universidade do Minho, Braga), **Judy Lieberman** (Immune Disease Institute and Harvard Medical School, Boston), **Aaron Cypess** (Joslin Diabetes Center and Harvard Medical School, Boston), **Maria Mota** (Instituto de Medicina Molecular, Universidade de Lisboa) e **Dyann Wirth** (Harvard School of Public Health, Boston) são os convidados deste primeiro simpósio.

Após as conferências, os oradores estarão disponíveis para responder às questões da assistência.

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### Contactos Media

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## HARVARD MEDICAL SCHOOL - PORTUGAL

### 1<sup>st</sup> ANNUAL SYMPOSIUM - PROGRAM

(14<sup>th</sup>/15<sup>th</sup> December 2009, CCB - Pequeno Auditório, Lisbon, Portugal)

#### Day 1 (Monday, 14<sup>th</sup> Dec)

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17h Registration and Opening

17h30 **Ron DePinho**: Telomeres in Cancer and Aging

18h30 **Benedita Rocha**: The Role of D1 Cyclin in Lymphopoiesis

#### Day 2 (Tuesday, 15<sup>th</sup> Dec)

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09h30 **Adrianno Aguzzi**: Molecular Biology on Prions

11h00 **Nuno Sousa**: The Stressed Brain

12h00 **Judy Lieberman**: Silencing Sexual Transmission of HSV-2 and HIV

14h30 **Aaron Cypess**: Brown Adipose Tissue: Location, Significance and Health Implications

15h30 **Maria Mota**: Approaching Malaria from Various Angles

17h00 **Dyann Wirth**: Malaria: A 21<sup>st</sup> Century Solution for an Ancient Disease

18h Closing

## **Ron DePinho**

Dana-Farber Cancer Institute and Harvard Medical School, Boston  
[ron\\_depinho@dfci.harvard.edu](mailto:ron_depinho@dfci.harvard.edu)

Dr. DePinho is the Director of the Belfer Institute for Applied Cancer Science at the Dana-Farber Cancer Institute, Professor of Medicine and Genetics at Harvard Medical School, and holds the coveted American Cancer Society Research Professorship. His research program has made major discoveries of fundamental importance to cancer medicine, aging and degenerative disorders. He has been a leader in the field of molecular genetics and in the development of mouse models of human cancer. His independent scientific career began at the Albert Einstein College of Medicine where he was the Feinberg Senior Scholar in Cancer Research and launched the first mouse genome engineering program to model and study the genetic basis of cancer. He is now a member of the Department of Medical Oncology at the Dana Farber Cancer Institute and Department of Medicine and Genetics at the Harvard Medical School. Dr. DePinho is a former member the Board of Directors of the American Association for Cancer Research, chaired the advisory boards for the NCI Mouse Models of Human Cancer Consortium and is chair of the Advisory Committee of the Human Cancer Genome Atlas Project. He has chaired and served on dozens of numerous advisory boards in the public and private sectors. Dr. DePinho studied Biology at Fordham University where he graduated Class Salutatorian and received his M.D. degree with distinction in Microbiology and Immunology from the Albert Einstein College of Medicine. His honors and awards include the March of Dimes Basil O'Connor Award, James S. McDonnell Scholar Award, the Cancer Research Institute Scholar Award, the Melini Award for Biomedical Excellence, the Irma T. Hirshcl Award, Kirsch Foundation Investigator Award, the Richard and Claire Morse Scholar Award. He is the 2002 recipient of the American Society for Clinical Investigation Award, the 2003 AACR Clowes Award, the 2007 Helsinki Medal, the 2007 Harvey Lectureship and is the 2009 recipient of the Albert Szent-Gyorgyi Prize. He is a member of the Institute of Medicine of the National Academy of Sciences. He is a Founder of several biotechnology companies focused on cancer therapy and diagnostics including Aveo Pharmaceuticals, Eden Therapeutics, Metamark Genetics and plays an active advisory role for oncology portfolios of several large Pharmaceutical companies.



14 Dec: 17h30 to 18h30

Telomeres in Cancer and Aging

## **Benedita Rocha**

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B. Rocha, M.D. Ph.D. obtained her medical degree at the Medical Faculty of the Classical University of Lisbon, her Ph.D. at the Medical Faculty of Glasgow and the full professorship at the Medical Faculty of the New University of Lisbon. During her career she also was Research fellow at the Sloan-Kettering Cancer Center in New York and at the Basel Institute for Immunology. She moved to Paris in 1987, and is now DRCE (Director of research exceptional class) from the Centre National de la recherche Scientifique, Vice-Dean of the Medical Faculty René Descartes Paris V, and director of the INSERM U 591. She is honorary member of the Portuguese Society of Immunology, member of EMBO and received the prize for basic research at the INSERM, the CNRS silver medal and was nominated chevalier de la Légion d'Honneur. Her research work has concentrated on T cell differentiation and CD8 T cells behavior in normal and pathological conditions.



14 Dec: 18h30 to 19h30  
The Role of D1 Cyclin in Lymphopoiesis

**Adriano Aguzzi**

(MD PhD FRCP FRCPath)

Institute of Neuropathology, University Hospital of Zürich  
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Adriano Aguzzi, M.D., Ph.D., is professor and director of the Institute of Neuropathology at the University of Zurich. His research career has focused entirely on prions, exploring how they damage brain cells, why they accumulate in lymphoid organs, and how they reach the brain after entering the body from peripheral sites. Dr. Aguzzi has been Associate Dean for research at the University of Zurich Medical School, and president of the Swiss Society of Neuropathology. He is the Founder and Director of the Swiss National Reference Center for Prion Diseases, and is on the Board of Governors of the Swiss Federal School of Technology. Dr. Aguzzi has developed and patented several diagnostic and therapeutic methods in the field transmissible spongiform encephalopathies. He is an adviser to the British, Italian, and Swiss government on spongiform encephalopathies. He sits on the editorial boards of numerous journals and on the scientific advisory board of various philanthropic foundations and biomedical companies. Among other honors, Dr. Aguzzi has won 2009 the Antonio-Feltrinelli Prize in Rome, as well as the medal of the European molecular biology organization.



15 Dec: 09h30 to 10h30  
Molecular Biology on Prions

## Nuno Sousa

Escola de Ciências da Saúde, Universidade do Minho, Braga  
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Nuno Sousa (41 years-old, MD, PhD) is Associate Professor at the School of Health Science, University of Minho. He is the Director of the Medical Degree at University of Minho. He is the Coordinator of the Neuroscience Research Domain. His research main interests are focused in the establishment of functional and structural correlations mediated by stress and its implications in neuropsychiatric disorders. Detailed assessment of neuroplastic events, incorporation of newly generated cells into neuronal networks, rearrangements of established dendritic and synaptic contacts, combined with behavioural, neurochemical and electrophysiological correlates have been established in his laboratory and several modulatory interventions have also been tested in order to promote recovery of structure and function in neuronal tissues.

Nuno Sousa has published 73 peer-reviewed research articles (more than 1000 citations) and 5 reviews or book chapters. He has supervised 7 PhD students and currently supervises another 8 PhD students. He has received 3 awards and honours for his research accomplishments. In addition to academic merits, Nuno Sousa serves on several science policy and advisory board positions, and as an *Ad hoc* reviewer for various neuroscience journal and international funding organizations.

### Main Research Accomplishments

- Identification of the morphological correlates of stress-induced behavioural and endocrine disruption.
- First demonstration of the reversibility of stress-induced synaptic events.
- Demonstration of the importance of MR/GR balance in the regulation of hippocampal and prefrontal cortex structure.
- Description of the early-life hormonal programming of structure and function of the limbic system, including the hypothalamic-pituitary-adrenal axis function.
- Identification of gradients of adult hippocampal cellular turnover and its implications in psychiatric disorders.
- Demonstration that the Smad pathway mediation of BDNF and TGF- $\beta$ 2 regulates proliferation and differentiation of hippocampal granule neurons.
- First demonstration that anti-inflammatory cytokines are involved in depressive-like behavior.
- Demonstration that stress and glucocorticoids trigger the amyloidogenic processing of APP and tau hyperphosphorylation.
- Demonstration that the actions of antidepressants do not depend on neurogenesis but rather on neuronal plasticity effects.
- Demonstration that chronic affects differentially corticostriatal networks which is of relevance for decision-making processes.



15 Dec: 11h00 to 12h00  
The Stressed Brain

## **Judy Lieberman**

Immune Disease Institute  
Harvard Medical School, Boston  
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Dr. Lieberman is Senior Investigator at the Immune Disease Institute and Professor of Pediatrics at Harvard Medical School. She received a Ph.D. in physics from Rockefeller University and worked as a theoretical physicist studying high energy particle physics at the Institute for Advanced Study in Princeton and the Fermilab before enrolling as a medical student in the joint Harvard-MIT Program in Health, Science and Technology. She trained in Internal Medicine and Hematology-Oncology at New England Medical Center and was a postdoctoral fellow with Herman Eisen studying T cell immunology at the Center for Cancer Research at MIT. Dr. Lieberman has been on the faculty of Harvard Medical School since 1995. From 2005-2009, she served as Director of the Division of AIDS at Harvard Medical School. She is a member of the American Association of Physicians and the American Academy of Arts and Science.

The Lieberman laboratory has been in the forefront of harnessing RNA interference for disease prevention and therapy, especially for HIV and cancer. She was the first to show that RNA interference could be used to protect mice from disease. Her group developed novel strategies for delivering small interfering RNAs that are effective in vivo. The lab is also investigating the role of the endogenous microRNA pathway in cellular differentiation, transformation and viral infection. They recently showed that the let-7 microRNA family regulates "stemness" of cancer stem cells and that miR-24 regulates cell cycle progression and the DNA damage response.

Her laboratory also studies how cytotoxic T lymphocytes kill viral infected or cancerous target cells and how T cell effector immune responses are regulated in the setting of chronic infections, such as HIV. She has helped develop two candidate HIV vaccines – one based on a detoxified bacterial toxin and another based on an engineered intracellular bacterium.



15 Dec: 12h00 to 13h00  
Silencing Sexual Transmission of HSV-2 and HIV

## Aaron Cypess

Joslin Diabetes Center  
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Dr. Aaron M. Cypess graduated from Princeton University summa cum laude in 1992, concentrating in chemistry, and did his postgraduate training at Rockefeller University where he studied signal transduction of peptide hormone receptors with Dr. Thomas P. Sakmar. After finishing medical school at Cornell University, Dr. Cypess did a residency in internal medicine and then endocrinology fellowship at Beth Israel Deaconess Medical Center (BIDMC) and Harvard Medical School. His postdoctoral research with Dr. C. Ronald Kahn at Joslin Diabetes Center (JDC) focused on insulin receptor signaling and brown adipose tissue development. In 2006, Dr. Cypess joined the Clinical Investigator Training Program, a masters program based at Harvard Medical School and MIT that trains physician-scientists in patient-oriented research. Dr. Cypess currently has dual clinical and research appointments at JDC and BIDMC. His translational research interests include brown adipose tissue function and whole-body energy metabolism.



15 Dec: 14h30 to 15h30  
Brown Adipose Tissue: Location, Significance and Health Implications



**Maria Mota**

Instituto de Medicina Molecular, Lisboa  
[mmota@fm.ul.pt](mailto:mmota@fm.ul.pt)

Dr. Mota is a group leader at Lisbon's Instituto de Medicina Molecular, University of Lisbon, Portugal. She received her Ph.D. in 1998 from University College of London. She was named an EMBO Young Investigator in 2003 and was a recipient of a 2004 European Research Young Investigator Award from the European Science Foundation.



15 Dec: 15h30 – 16h30  
Approaching Malaria from Various Angles

## **Dyann Wirth**

Chair, Department of Immunology and Infectious Diseases  
Richard Pearson Strong Professor of Immunology and Infectious Diseases  
Director, Harvard Malaria Initiative  
Harvard School of Public Health

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Dyann Wirth is an expert in tropical disease and molecular microbiology and has developed many of the molecular genetic tools used in the investigation of malaria and leishmania. Her work has focused on the mechanisms of drug resistance and her group was the first to discover multidrug resistance mechanisms in these organisms. Dyann has played a leadership role in raising awareness of the burgeoning malaria problem both in the research community and the general public. She is particularly interested in new drugs for multidrug resistant parasites and the application of genomics to drug and vaccine development. Her current work includes both fundamental investigation and field-based studies, primarily in Africa. Dr. Wirth graduated Phi Beta Kappa from the University of Wisconsin, spent one year as a Fulbright Fellow, and then completed her Ph.D. in cell biology and virology at Massachusetts Institute of Technology. She was awarded a Helen Hay Whitney Fellowship for her postdoctoral work in molecular biology at Harvard and joined the faculty of Harvard School of Public Health in 1982. Presently she is Richard Pearson Strong Professor and Chair, Department of Immunology and Infectious Diseases at the Harvard School of Public Health. In addition to numerous honors in recognition of her work and service on expert committees and advisory boards, she served as President of the American Society of Tropical Medicine and Hygiene (1998-99) and was elected to the Institute of Medicine, National Academy of Sciences (2004). She is co-director of the Harvard University Global Infectious Diseases Program, a university-wide interdisciplinary initiative to study, treat, and prevent deadly infectious diseases; director, Harvard Malaria Initiative; senior Associate Member at the Broad Institute of Harvard and MIT; and co-director of the Broad's Infectious Disease Initiative.



15 Dec: 17h00 to 18h00  
Malaria: A 21<sup>st</sup> Century Solution for an Ancient Disease

# Harvard Medical School - Portugal

Program In Translational Research And Information

<http://www.hmsportugal.org/>

The **Harvard Medical School-Portugal** program will:

- Create a program that facilitates new translational and clinical research. A total of 12 collaborative projects will be supported in areas related to human disease.
- Launch and streamline post-graduate medical training, including new Junior and Senior Clinical Research and Career Development Awards for Portuguese MD trainees.
- Produce and publish medical and health information for the general public, and distribute educational material to medical students and health professionals in Portugal.

The wide-ranging initiative will involve professors, researchers and students from the 7 schools of medicine in Portugal, as well as the country's main biomedical research laboratories. At Harvard University, the program will involve researchers from Harvard Medical School and affiliated institutions together with faculty and students from the Faculty of Arts and Sciences, the Harvard School of Public Health, and the Kennedy School of Government.

The Harvard Medical School–Portugal Program will help modernize and improve the quality of medical education in Portugal, which is today a priority that must be addressed with respect to best international practices. Moreover, it must include the broadening of cooperation between Portuguese medical schools and Associated Laboratories and R&D institutions active in the field of biomedical and health sciences in such a way as to spur the creation of a truly competitive level of training at the international level.

The translational research activities are designed to help populate Portuguese research institutions with an increasingly sophisticated clinical and translational research capacity, and to expand the rate and quality of Portuguese clinical and translational research contributions to the international community. The program is also designed to foster long-lasting collaborative ventures, both within Portugal and between Portuguese and Harvard research groups.

The activities on health information will be based in Portugal and led by Portuguese academics. HMS will provide training and content through its Harvard Health Publications Division (HHP), which has 33 years of experience creating and disseminating health information for the general public.

## **Contactos – Equipa de Gestão:**

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## **First Annual Symposium – Welcome Address**

We welcome you to the First Annual Symposium of the Harvard Medical School - Portugal Program in Translational Research and Information to be held in Centro Cultural de Belém, Lisbon, during Dec 14<sup>th</sup> and 15<sup>th</sup>.

During the two days of the Symposium, we will have eight great talks from invited speakers covering many exciting areas in biomedical research. We invite you to join the speakers and the Portuguese and Harvard Medical School Directors of the Program whom will be fully available for informal discussions throughout the duration of the Symposium.

We look forward seeing you all.



**Maria Carmo-Fonseca**  
Program Director in Portugal



**Tomas Kirchhausen**  
Program Director at Harvard Medical School