



Noite Europeia dos Investigadores

Ciência no dia-a-dia 30.set.2016

PROGRAMME

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EUROPEAN RESEARCHERS NIGHT 2016 | PORTO

PROGRAMME – September 30

INTRO NOTE

On September 30, from 18h00 to 00h00, in Porto the Natural History and Science Museum of the University of Porto (MHNC-UP) opens the doors of the emblematic and recently renewed Casa Andresen at Porto's Botanical Garden/MHNC-UP, and invites the public, from all ages, to take part in the celebration of this year's edition of the European Researchers Night, which will also happen simultaneously in Lisbon and in Braga.

During the longest, most interesting scientific night of the year, everyone is welcome to join us and engage in an exemplary and diverse selection of dissemination activities that illustrate the impact that scientific research has on society and on our everyday lives. As a member of the SCILIFE (Science in Everyday Life) Consortium, which is coordinated by the National Museum of Natural History and Science (ULISBOA/MUHNAC) and brings together the School of Sciences of the University of Minho, the Association for Innovation and Development of FCT (NOVA.ID. FCT), the Research Center in Sociology Studies (CIES), Lisbon University Institute (ISCTE-IUL), and Lisbon City Hall, the MHNC-UP's programme for the last night of September follows the main goal of contributing to raise awareness in this scope. From debates and lectures with experts in botany and digital information management, to quizzes, interactive games, hands-on activities, demonstrations, sensory experiences, including virtual reality, and guided visits to the Botanical Garden of Porto / MHNC-UP, a whole range of highly enticing actions has been prepared specifically to prompt the participants' close interaction with researchers from all areas of knowledge, from hard core science, such as physics, to the social sciences and every field in between.

This initiative will be promoted in close collaboration with over 15 partners, mobilizing more than thirty researchers, students and volunteers.

Amongst the numerous activities comprised in the event, one can highlight, for instance, a naturalist expedition, XIX century style, to the Botanical Garden, a fieldwork trip aimed at unveiling the animal species that inhabit its ponds, or a debate on the potential of open access policies in scientific research. In Porto, the MHNC-UP will challenge the visitors to find out how to produce algae-derived products with very useful applications, to operate a drone, to appraise the role played by nature conservation associations, to figure out the mechanical phenomena that are set in motion when we move and their implications for health, to appreciate the interaction between arts and cultural dissemination and the role of creativity in that context, to recognize the great impact of neuroscience research in our typical behaviours, to understand how scientists use satellite images to analyze land and ocean biodiversity patterns, to learn how to prepare a delicious dessert from different plant parts, using molecular cuisine "recipes", to notice the microscopic world around us and to acknowledge our collective role as builders of the territory we inhabit, and all the possible intersections between heritage, arts and science.

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18h00 | OPENING

18h00 – 00h00 | ONGOING ACTIVITIES

=> MACROALGAE PRODUCTION AND APPLICATIONS

Display of cultures from marine macroalgae and results of biomass production from cultures developed under different conditions. Demonstration of pigment extraction and food tasting of products based on macroalgae.

Activity promoted by: ALGApplus Produção e Comercialização de Algas e Seus Derivados, Lda. (Company focused on production of algae and its derivatives)

[Project: LIFE SEACOLORS - Demonstration of new natural dyes from algae as substitution of synthetic dyes actually used by textile industries.](#)

=> THE ROLE OF NATURE CONSERVATION ASSOCIATIONS

A display of different outreach actions that FAPAS has been promoting all over the country in the context of biodiversity conservation and nature conservation, aiming to raise awareness about the role played by nature conservation and environmental organizations in the education of citizens for environmental sustainability.

Activity promoted by: FAPAS - Fundo para a Protecção dos Animais Selvagens (Fund for the Protection of Wild Animals)

=> ACTIVE FOOT CARE

Clinical gait evaluation of pathologies (peripheral neuropathies and morphological and biomechanical disorders of the foot) that are in the basis of customized footwear development. Demonstration of the distribution of plant pressures during gait.

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Activity promoted by: LABIOMEPE – Laboratório de Biomecânica do Porto | FADEUP - Faculdade de Desporto - U.Porto (LABIOMEPE – Porto Biomechanics Laboratory, FADEUP - Faculty of Sports of the University of Porto)

[Projecto: StressLess Shoe e Newalk \(QREN\)](#)

=> RESOLVE PROGRAMME

The main objective of the RESOLVE program is to create the necessary conditions for innovative technologies to quickly make the leap to a stage that can attract interest of investors, gaining both autonomy and market potential. The goal of this project is also to overcome obstacles in the process of knowledge transfer, with a special focus on research entities in healthcare from the northern region of Portugal.

Activity promoted by: i3S – Instituto de Investigação e Inovação em Saúde, U.Porto (Institute for Research and Innovation in Health, University of Porto)

[Project: RESOLVE - NORTE-01-0246-FEDER-000018](#)

=> REFLECTING UPON AN ITINERANT CONCEPT

The project Itinerant Concept resulted from an interpretation and processing of 3 spaces (commercial space, monument, museum). It culminated in three exhibitions with the aim of analyzing similarities and differences among the creation of these spaces. This project has also promoted the interaction of national and international artists by adapting strategies of cultural dissemination and social creativity, and established connections and collaborations with Cape Verde. The last step, occurring at the House-Museum Abel Salazar (2015/16), will be the focus of the same type of analysis in the context of the surroundings and future prospects.

Activity promoted by: CITCEM - Centro de Investigação Transdisciplinar «Cultura, Espaço e Memória» | FLUP - Faculdade de Letras da U.Porto (CITCEM – Centre for Interdisciplinary Research on Culture, Space and Memory | FLUP - Faculty of Arts of the University of Porto)

=> EXPERIMENTAL MORPHOLOGY APPLIED TO NEUROSCIENCES

A research group that focuses on the morphology of the nervous system and some of the methodologies applied in research in this field, as well as its usefulness and applicability

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in society. An introduction will be performed about general concepts associated with the central nervous system and different fields in neurosciences, with a focus on different experimental models, laboratory techniques, and techniques of behavioral analysis.

Activity promoted by: CINTESIS - Departamento de Anatomia da Faculdade de Medicina da U.Porto (CINTESIS – Anatomy Department – Faculty of Medicine of the University of Porto)

=> BIOQUIZ

An entertaining game of questions and answers about biodiversity. Visitors will test their knowledge and discover numerous curiosities in an interactive environment.

Activity promoted by: CIBIO-InBIO – Centro de Investigação em Biodiversidade e Recursos Genéticos, U.Porto e Fundação de Serralves (CIBIO-InBIO - Research Centre in Biodiversity and Genetic Resources, University of Porto and Serralves Foundation)

=> EARTH OBSERVATION: SATELLITES IN ECOLOGY

CIBIO-InBIO – Centro de Investigação em Biodiversidade e Recursos Genéticos, U.Porto (CIBIO-InBIO - Research Centre in Biodiversity and Genetic Resources, University of Porto)

Demonstration of the applicability of satellite imagery data in our knowledge of the territory and biodiversity, as well as in ecosystems monitoring. Visitors will see satellite images, graphics, and photographs used frequently by this research group in their daily activities and meet the ECO POTENCIAL project.

[PROJECTO: H2020 ECO POTENCIAL - Improving future ecosystem benefits through Earth Observation](#)

=> PLANTS ON THE TABLE

This activity will explore the chemical processes used in molecular cuisine, with a special focus on plants. The visitors will extract flavors from seeds and fruits. Using these extracts a dessert will be produced and tasted.

Activity promoted by: CIBIO-InBIO – Centro de Investigação em Biodiversidade e Recursos Genéticos, U.Porto (CIBIO-InBIO - Research Centre in Biodiversity and Genetic Resources, University of Porto)

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=> TRACES OF BIODIVERSITY

This activity will allow to analyze traces left by animals, such as feathers, hairs, droppings, regurgitations, footprints, etc. Participants will come to realize that in a simple and economical way studies based on these elements can help to increase knowledge about living organisms and their habits.

Activity promoted by: CIBIO-InBIO – Centro de Investigação em Biodiversidade e Recursos Genéticos, U.Porto (CIBIO-InBIO - Research Centre in Biodiversity and Genetic Resources, University of Porto)

=> LET'S TALK ABOUT SLOTH?

A demonstration about the importance of an emblematic mammal from the neotropics – the sloth! This activity will foster the understanding about the importance of forest protection and the natural resources, such as water, essential to the survival of man.

Activity promoted by: CIBIO-InBIO – Centro de Investigação em Biodiversidade e Recursos Genéticos, U.Porto (CIBIO-InBIO - Research Centre in Biodiversity and Genetic Resources, University of Porto)

=> MICROCOSMOS; ELECTRIC BALLOONS

In this activity, visitors will be able to manipulate various optical instruments that will allow to observe the microscopic life around us. There will be also the opportunity to understand the properties of static electricity using household materials.

Activity promoted by: YScience (a company specialised in the promotion of scientific and technological culture)

=> IPCA EXPERIENCE

In this area, dedicated to interactivity, it will be possible to control a drone, become a FPV (*First Person View*) pilot, and enjoy a variety of virtual reality experiences .

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Activity promoted by: IPCA – Instituto Politécnico do Cávado e do Ave (IPCA - Polytechnic Institute of Cávado and Ave)

=> TERRITORY AS A COLLECTIVE CONSTRUCTION - DYNAMICS, ACTORS AND IDENTITIES

Exhibition of research studies on urbanization, especially in the northwest region of Portugal, and in support for the territorial management area. Visitor will also get to know the participation of this research group in various academic events.

Activity promoted by: MDT - Grupo de investigação Morfologias e Dinâmicas do Território | CEAU - Centro de Arquitectura e Urbanismo | FAUP - Faculdade de Arquitectura da U.Porto (MDT - Morphologies and Spatial Dynamics Research group | CEAU - Architecture and Urban Planning Center, FAUP – Faculty of Architecture of the University of Porto)

=> HERITAGE, SCIENCE AND SOCIETY

Visitors will watch videos, images, and other materials related to research conducted in the scope of the existing relationship between the study and teaching of artistic techniques, their respective application in conservation projects, restoration of heritage, and enjoyment by the communities.

Activity promoted by: CITAR - Centro de Investigação em Ciência e Tecnologia das Artes | Escola das Artes da Universidade Católica Portuguesa (CITAR - Centre for Research in Science and Technology of Arts - Portuguese Catholic University)

=> EUROPEAN CORNER

An area where visitors will have the opportunity to know more about the contribution of the European Commission, namely through the support programs it promotes, to the advancement of scientific knowledge.

Activity promoted by: Gabinete de Apoio à Investigação da U.Porto (Research Support Office of the University of Porto)

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=> TELL US ABOUT YOUR EXPERIENCE!

A set of activities intended to find out if the SCLIFE Team at Porto was able to help the visitors understand the work done by a research scientist.

Activity promoted by: MHNC-UP – Museu de História Natural e da Ciência da U. Porto (MHNC-UP – Natural History and Science Museum of the University of Porto)

18h00 – 23h00 | SCHEDULED ACTIVITIES

=> 18h00 – 23h00 | THERE IS A “NEW” MUSEUM IN TOWN – DISCOVER THE MHNC-UP

Activities promoted by: MHNC-UP – Museu de História Natural e da Ciência da U. Porto (MHNC-UP – Natural History and Science Museum of the University of Porto)

=> 18h00 – 19h00 | BONES QUIZ

Different bones from different animals! The challenge stems from finding out which animal each bone belongs to, how they are related, and their particularities.

=> 19h00 – 20h00 | WHERE DID THE PLANTS WE EAT COME FROM?

Plants have travelled the world by human hand and their history tells part of the history of human societies. In the long term, many different people that contacted or arrived at the Iberian Peninsula throughout the ages - such as the Phoenician, Greeks, Roman and Arabs - have brought new food plants or promoted specific native species. However, people usually have misguided ideas of the origin of plants they eat and have little knowledge of the History and stories surrounding their arrival at Europe and, in this particular case, Portugal.

For instance, most Portuguese people think bananas have an American origin. Archaeobotanical and written sources demonstrated that bananas were in fact brought from Asia into Africa in prehistoric times and then sent to South America by the Portuguese in the 16th century as food for the slaves. On the other hand, most people

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assume chestnut to have been introduced by the romans in the Iberian Peninsula when, in fact, it is a native species.

20h00 – 21h00 | INVADERS ALL AROUND US!

Invasive animals and plants are one of the major problems for biodiversity conservation nowadays. In this activity the main concepts regarding invasive species and the ecological problems they cause are presented. Selected cases of invasive species that occur in Northern Portugal are described and exemplified in a visit to the Botanical Garden.

=> 21h00 – 22h00 | BREAKING STONES, STONES THAT CUT

Before the development of metallurgy, human communities depended on different stone types to build cutting tools. Specific rocks were selected during prehistoric times to process plants and animals to be used as food, clothing etc. The MHN has one amazing archaeological rock collection and will show you how cutting stones look like and how they were knapped. Come and see how prehistoric populations prepared their food before kitchen knives were invented.

=> 22h00 – 23h00 | THE COLLECTION'S LOTTERY

Items from different collections are “raffled” by the museum through an interactive game. In this activity, items from the Museum collections are explained in detail by the respective curator to build curiosity for the museum collection.

18h30 – 20h00 | GUIDED TOUR: NATURALISTS NEEDED! A BOTANICAL EXPEDITION IN THE XXI CENTURY

During a tour in the Botanical Garden of Porto/MHNC-UP, visitors are invited to explore different areas. This activity aims at sparking curiosity and the ability to observe and experience the preservation of plant species for scientific collections. The visitors will have the chance to explore techniques and tools of the XVIII century, as well as modern approaches.

Activity promoted by: CIBIO-InBIO – Centro de Investigação em Biodiversidade e Recursos Genéticos, U.Porto (CIBIO-InBIO – Research Center in Biodiversity and Genetic Resources, University of Porto)

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19h00 – 20h00 | LECTURE: A GREEN TALK

A relaxed conversation about habitats and biodiversity and their relationship with the human being.

Activity promoted by: Prof. Paulo Farinha Marques, Director do Jardim Botânico do Porto/MHNC-UP

19h00 – 21h00 | FIELD EXIT: UNVEILING THE PONDS OF OPORTO BOTANICAL GARDEN

During a field trip to the Botanical Garden of Porto/MHNC-UP, participants will be invited to participate in the work of biologists in the study of ponds. Participants will learn about the study techniques used by researchers and will have the opportunity to observe some of the species that inhabit the ponds.

Activity promoted by: CIIMAR – Centro Interdisciplinar de Investigação Marinha e Ambiental, U.Porto CIIMAR - (Interdisciplinary Centre of Marine and Environmental Research, University of Porto)

21H00 – 22H00 | OPEN ACCESS: BRIDGING THE GAP TWOARDS SCIENCE

A lecture/debate focusing on the potential and impact of open access policy in regards to scientific publications, based on the exemple of U.Porto's Open Repository.

Activity promoted by: Eng. Augusto Ribeiro, U.Porto

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PRACTICAL INFORMATION

Throughout your participation in this event, a especially dedicated team of volunteers will be available to assist you.

LOCATION

Casa Andresen - Jardim Botânico do Porto/MHNC-UP
Rua do Campo Alegre, 1191
4150-181 Porto
Portugal

[Here on a map](#)

CONTACTS

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TIME AND DAY

September 30, 2016 - 18h00 to 00h00

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TECHNICAL INFO

PROMOTERS

The project has been funded by the European Commission under HORIZON 2020 in the framework of the Marie Skłodowska Curie actions

GLOBAL ORGANIZATION

SCILIFE Consortium - “Science in Everyday Life” – (Ciência no dia-a-dia)



LOCAL ORGANIZATION

Natural History and Science Museum of the University of Porto (MHNC-UP)

PARTNERS

