Barcelona Institute of Science and Technology

PRESS RELEASE
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BIST research institutes bring their research to Barcelona's Youth Mobile Festival

- **BIST will have a dedicated booth at YoMo with experiments about quantic systems, microscopes, 3D printing and artificial photosynthesis – among others.**
- **The goal is to approach the frontier research carried out at BIST centres to the more than 15000 students expected to visit the science festival.**

Barcelona's Youth Mobile Festival (YoMo) will take place at LA FARGA (Hospitalet, Barcelona) from February 27th to March 2nd. During these days, the Barcelona Institute of Science and Technology (BIST) will have a dedicated booth to approach its cutting-edge research to young students. BIST seven centres in Barcelona and Tarragona have prepared unique experiments and demonstrations to explain the latest advances in genetics, photonics, biomedicine, bioengineering, chemistry and energy.

With the activities designed by CRG, students will turn their smartphones into microscopes. Together with CRG scientists, they will observe *C. elegans* worms, an organism used in biomedicine research projects to model biological processes.

Youngsters will also explore the effects that measuring has on quantic systems like scientist do at ICFO. Thanks to an interactive set-up, visitants will be able to handle optical elements and understand the bases of quantum mechanics, and how some of its concepts are related to new technologies.

Students will learn about the bioengineering research carried out at IBEC thanks to a 3D pencil. They will think about the advantages and disadvantages of several therapies, and will have the opportunity of seeing real 3D printed tissue samples through a microscope.

ICIQ will introduce visitors to artificial photosynthesis. Using a visual, simple game, students will learn how chemists are capable of 'capturing' carbon dioxide and then transform it into new, clean biofuels that don't contribute to climate change.

Together with scientists from IFAE, visitors will be able to see cosmic rays, as well as alpha and beta particles. To do so, they will use detectors that give us a glimpse of the subatomic world, like a cloud chamber, scintillators or silicon detectors. They will learn you don't need microscopes, nor light, to see subatomic particles.

IRB Barcelona will present a workshop where students will learn how and why we study DNA. They will discover what genetic mutations are, and how they are related to diseases like cancer. Moreover, they will interact with a Lego microscope that mimics a real scientific instrument, which will allow them to take pictures with their phones of real fluorescent samples.

ICN2 will showcase demonstrations to teach the basic concepts of nanoscale, and innovative applications of nanoscience in the medical and energy fields. Furthermore, ICN2, in collaboration with the mSchools GSMA initiative –a project shared with UB, UAB, and CESIRE– to bring an interactive educative experience to the classroom, exploring the social uses of super-hydrophobicity with innovative technologies.

About BIST

The Barcelona Institute of Science and Technology (BIST) is an initiative of seven research centers of excellence in Catalonia whose objective is to increase their collaboration in order to build a common scientific project. Its strength is based in the research capacity of its centers and in its potential to promote leading multidisciplinary research projects. The centers of the BIST are the Center for Genomic Regulation (CRG), the Institute for Bioengineering of Catalonia (IBEC), The Institute of Photonic Sciences (ICFO), the Institute of Chemical Research of Catalonia (ICIQ), the Catalan Institute of Nanoscience and Nanotechnology (ICN2), the Institute for High Energy Physics (IFAE), and the Institute for Research in Biomedicine (IRB Barcelona).

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