2024 BIST Forum

The meeting of the BIST scientific community highlights the social and economic impact generated by frontier research

January 11, 2024

The BIST Forum discussed how excellent science enhances the development of society and economic growth
The president of the Generalitat, the mayor of Barcelona, the heads of the highest economic institutions and the rectors of the main universities were in attendance.
At the event, the new BIST IGNITE projects for multidisciplinary research were announced.

The BIST scientific community, made up of seven major Catalan research centers - CRG, IBEC , ICFO, ICIQ, ICN2, IFAE, and IRB Barcelona- held the BIST Forum today in the auditorium of La Pedrera. This year, the annual meeting dealt with the three main areas to which frontier research in Catalonia contributes: the expansion of knowledge, the change in the productive model and the development of society. **The president of the Generalitat, Pere Aragones**, inaugurated the Forum, which brought together two hundred people from the scientific,

political, economic and social worlds. Among them, the chancellors of UB, UAB, UPC and UPF universities, and heads of the Barcelona Chamber of Commerce, the Cercle d'Economia, Foment del Treball and Barcelona Global. President Aragones pointed out that "we have one of the most powerful research ecosystems, with the greatest potential in southern Europe" and the BIST community "is one of the clearest examples".

Likewise, the different sessions emphasized Catalonia's exceptional capacity for scientific production, which in two decades has risen to a position of leadership in Europe, and the potential to be the main source of industry of the 21st century The president of the Generalitat reaffirmed Catalonia's commitment to becoming a knowledge-based economy and praised the Catalan research system's ability to generate excellent science.

Illustrating this point, the event featured three successful cases of start-ups from the BIST community that have been awarded the National Innovation Research Award: Pulmobiotics (CRG), LuxQuanta (ICFO) and Ona Therapeutics (IRB Barcelona). In a round table format, the experience of the companies that all emerged from cutting-edge research was shared, noting as well the need for organizational, regulatory and financing changes in order to continue development of this sector.

The Forum also celebrated the scientific community's ability to attract funding from the European Research Council, the most prestigious call for research projects in Europe. Catalonia attracts half of the ERC grants received in the State and has more per population than Germany or France. The BIST community, in particular, hosts 24% of the ERCs received in Catalonia. In a conversation between three grant recipients, they analysed the impact the grants have had on their research as well as the value they bring to develop ambitious projects in centers within the BIST community.

Prof. Nuria Montserrat, ICREA researcher at IBEC and member of the Council for Research and Innovation of Catalonia, contributed a presentation the focused on the ways in which frontier research transforms people's living conditions, the well-being of society and the sustainability of the planet.

The BIST Forum culminated with the announcement of the five new multidisciplinary research projects between groups of the BIST community as part of the BIST Ignite program:

Nanolympics: a project led by researchers Nicoletta Liguori and Katherine Villa, from ICFO and ICIQ, respectively, which seeks to design "nano-swimmers" (nanometric compounds) for applications such as waste water treatment.

MOLOPEC: liderat pels investigadors postdoctorals Carles Ros, Sergi Grau i Sara Marti-Sanchez, de l'ICFO, l'ICIQ i l'ICN2, respectivament. Cerca fabricar materials organics fotoactius i catalitzadors moleculars. Els nous materials contribuirien a la utilitzacio de CO2 per la obtencio de productes de valor afegit com per exemple combustibles solars.

TriBioNics: led by postdoctoral researchers Carles Ros, Sergi Grau and Sara Marti-Sanchez, from ICFO, ICIQ and ICN2, respectively. It seeks to manufacture photoactive organic materials and molecular catalysts. The new materials would contribute to the use of CO2 to

obtain value-added products such as solar fuels.

bRaiNA: led by IBEC postdoctoral researcher Daniel Gonzalez-Carter, and CRG researcher Fatima Gebauer. The project will combine expertise in the biology of the brain's vascular cells from the former, and microRNA technologies from the latter, with the aim of finding new treatments for brain pathologies.

DendriPhotoSomes: a collaborative project between ICREA professors Pablo Ballester, at ICIQ, and Cesar Rodriguez-Emmenegger, at IBEC. They seek to generate artificial membranes, with the aim of converting and storing solar energy, making use of artificial photosynthesis.

The **BIST Ignite multidisciplinary** research program is supported by the Barcelona City Council, and it was **Mayor Jaume Collboni** who closed the Forum. Colllboni, who defends Barcelona's vocation as a European scientific capital, stressed "that it is important that people are aware of what frontier research contributes and the social return that it has, as well as the need to guarantee stable frameworks and funding in order for it to bear fruit."

***** Photos: Albert Mollon-BIST**

CCatalonia President Pere Aragones with ERC grantees

Barcelona Mayor Jaume Collboni with winners of BIST Ignite projects

Rountable: From Frontier Research to the Economy