

LSC NEWSLETTER

THIRD TRIMESTER | ISSUE 3 OCTOBER 2021

Rebecca Hernández Antolín
Técnico de bioquímica



Jorge Pelegrín Mosquera
Cryogenics Engineer (DIPC)

New additions to the LSC

Rebecca Hernandez Antolin recently joined the LSC staff as a biochemistry technician for setting up the new biolab underground and to also provide local support to the research groups exploring the impact of low radioactivity in life.

Likewise, the Donostia International Physics Center (DIPC) has seconded Jorge Pelegrín Mosquera, who will join the activities in gas systems and the water tank construction of NEXT-1ton and will lead new cryogenic applications in underground labs.



RITA Workshop

The Radium Tagging (RITA) Workshop held at the LSC had researchers from the DIPC, UPV/EHU, CFM, LSC & Ikerbasque presenting results on the design of barium and radium chelating molecules, surface binding, ultra-high vacuum measurements of molecular properties, cation separation by ICP-MS techniques and laser-induced molecular fluorescence measurements preparatory to the RITA facility that will be hosted at the LSC in 2022.

LSC patrons will earmark 16 M€ for the LSC.

The Council of Ministers has approved the extension of the agreement that finances the LSC (with 11M€ support for the coming decade). Aragon Government will contribute with over 5M€.

Considered the second most important underground facility in Europe, the Canfranc Underground Laboratory is built 800 meters underground. Two decadal projects and new strategic lines in cryogenics and biology and low background will set the future progress of the lab.

Biology brings more life to the LSC

New laboratory installations underground, a lead castle to host experiments in a reduced gamma background and the microbiology laboratory to prepare and manipulate samples, will be ready to host experiments that explore the striking impact of life in absence of cosmic rays since 2022.



LSC Publications:

The Dynamics of Ions on Phased Radio-frequency Carpets in High Pressure Gases and Application for Barium Tagging in Xenon Gas Time Projection Chambers

NEXT Collaboration•B.J.P. Jones et al. (Sep 8, 2021) e-Print: 2109.05902 [physics.ins-det]

Phonon-mediated crystal detectors with metallic film coating capable of rejecting α and β events induced by surface radioactivity

I.C. Bandac(LSC, Canfranc) et al. (Mar 12, 2021) Published in: Appl.Phys.Lett. 118 (2021) 18, 184105 • e-Print: 2103.07181