

LBS³:

a winning³ partnership in the conception of innovative medicines for the future

Bringing together the companies and the synchrotron facility in an efficient and sustainable way: this has been the stated ambition of SOLEIL since its start of operation in January 2008. The last decisive advance in this approach was embodied by the inauguration of the Laboratoire de Biologie Structurale (Structural Biology Laboratory) SERVIER at SOLEIL (LBS³) on the 23 June 2016.

LBS³ is the result of a partnership between 3 main players in French research and development in the medical field:

1. Servier Group, the first independent French pharmaceutical laboratory, which undertakes industrial research in 5 major therapeutic areas (cardiology, oncology, metabolic disorders, neuropsychiatry and rheumatology),
2. The SME NovAliX (90 staff), a company undertaking contract research on behalf of the pharmaceutical sector, having a high level of expertise in chemistry and biophysics,
3. Synchrotron SOLEIL, a French Very Large Scale Research Infrastructure, centre for research and services for research and industry for studies into live matter and advanced materials.

This partnership, effective since April 2015, has a renewable duration of 5 years and relates to the siting of a commercial laboratory in the synchrotron building of SOLEIL, as close as possible to its two bio-crystallography beamlines.

Servier is the first commercial group to benefit from facilities made available by a French synchrotron radiation centre, as part of a unique integrated technology platform which supplements the open platforms already available at SOLEIL, both by sector

(agriculture-food, cosmetics, cultural heritage) or region (administrative Grand Est region of France).

With a surface area of 170m², the LBS³ is a laboratory intended expressly for structural and functional studies of therapeutic target molecules (proteins). These studies are led by a team of 5 researchers from the NovAliX company, who likewise benefit from the offices made available by SOLEIL in the synchrotron building; at the heart of LBS³, these researchers perform the various steps of production, purification and crystallisation of proteins, before the possible transfer of the crystals to the bio-crystallography beamlines PROXIMA-1 and PROXIMA-2A of SOLEIL for the 3D determination of the structure of these proteins.

The three partners were already involved in bilateral collaboration programmes. Servier and NovAliX have been working together for twelve years, the two companies having been independently using the bio-crystallography beamlines of SOLEIL, since 2008 and 2011 respectively, while SOLEIL and Servier have been collaborating scientifically since 2011. The strengthened



Visit of the PROXIMA-2A beamline, during the inauguration of the LBS³, on the 23 June 2016. Standing, in the foreground, from left to right: Michel Bournat, Vice-President of the Conseil Départemental of Essonne and President of the Plateau de Saclay urban community, Olivier Laureau, President of Servier, Maud Olivier, Member of Parliament for Essonne, Stephan Jenn, President of NovAliX, and Christophe Gegout, Assistant Managing Director of CEA, following the explanations given, on his computer screen, by the PROXIMA-2A manager, William Shepard (seated, back to camera). Also present, in the background: Jean Dailant, Stéphanie Hustache, Andrew Thompson, respectively Director General, Head of the Communications and Life Sciences Director of SOLEIL, and Gabriel Chardin, President of the Very Large Scale Research Infrastructures comity at CNRS.

tripartite partnership embodies the scientific and technological complementarity between the three players and their shared willingness to advance medical research and reinforce the position of France in international competition.

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IN BRIEF

→ AN INDUSTRIAL CONSULTANCY COMMITTEE AT SOLEIL

The Comité d'Orientations Stratégiques pour l'Industrie à SOLEIL (Strategic Industrial Consultancy Committee at SOLEIL [COSIS]) will start operations at the end of 2016. A consultative structure advising the Director General of SOLEIL, COSIS brings together personalities from companies representative of the main SOLEIL application markets (pharmaceuticals, petrochemicals, aerospace, materials). Its main purpose is to express the requirements and expectations of industry in the short and medium terms in respect of the provided synchrotron research services.

→ μPPI AND NANOSATELLITES

SOLEIL is involved in the μPPI project aimed at miniaturising the electronic thrusters for a low mass class of satellites. This project, undertaken by an engineer of the University of Versailles Saint-Quentin-en-Yvelines, is also the responsibility of two other technical partners, CNRS and Ecole Polytechnique, and has a financial backer, SATT Paris-Saclay, which selected the project at the end of 2015 within the framework of its call for incubator projects.