StarLife is a unique infrastructure to improve the competitiveness of Barcelona biomedical pole set by Center for Genomic Regulation (CRG), Institute for Research in Biomedicine (IRB), and Barcelona Supercomputing Center (BSC) with the support of Fundació Bancària La Caixa, the Catalan Government and the European Structural and Investment Fund.

Current biomedical research requires huge capacity to create, store and analyses massive amounts of data implementing the most advanced computing techniques. The origin and format of data is diverse (genomics, phenomics, proteomics and metabolomics data; molecular and organismic information; high resolution clinic images and medical records, etc.) and the techniques with which these data are processed are also very varied, such as computational biology, data mining, machine learning or molecular simulations.

StarLife has 138.2 Teraflops of calculation power, 9.5 Petabytes of storage and an heterogeneous and reconfigurable architecture that makes itself suitable for this needs.

**StarLife composition:**

- Compute, 54 nodes, 2160 cores
  - 33 THIN nodes, 160 Gbytes/node
  - 3 FAT nodes, 320 Gbytes/node
  - 18 HADOOP nodes, 160 Gbytes - 72TB SATA disk
- High speed disk: 2 PB 20 GB/s
- Long-term storage: 1 PB disk, 12.5 GB/s - 4.5 PB LTO tape
Suitable for:

- High Performance Computing
- High Throughput Computing
- Big Data
- Cloud Computing
- Virtualization
- Containers
Barcelona Supercomputing Center

Barcelona Institut de Recerca Biomèdica