

15. International Genome Cancer Consortium (ICGC)

MUNICIPALITY

Barcelona

HEADING

The first epigenomes of CLL have been deciphered.

ECONOMIC AND TECHNICAL DETAILS

- Planned budget, 2009-2014: €15 M
- The project's sequencing activity is carried out at the new National Centre for Genome Analysis, located within the University of Barcelona (UB) Science Park.

PROJECT DESCRIPTION

The Scientific Directors of the CLL Genome Project are Dr. E. Campo, of Hospital Clínic and the University of Barcelona (UB), and Dr. C. Lopez-Otin, of the University of Oviedo (University Cancer Institute). Other members of the consortium are the Centre for Genomic Regulation of Barcelona, the Catalan Institute of Oncology (Bellvitge Biomedical Research Institute Foundation), the Salamanca Cancer Research Centre (Cancer Research Foundation), the Spanish National Cancer Research Centre, the University of Deusto, the University of Santiago de Compostela, the Barcelona Supercomputing Center, the National Centre for Genome Analysis and the August Pi i Sunyer Biomedical Research Institute. Other project collaborators include Hospital Clínic of Valencia, the Central University Hospital of Asturias, the Marqués de Valdecilla Hospital in Santander and the Pompeu Fabra University.

The aim of the project is to sequence the complete DNA of tumour cells to discover which genetic alterations cause their development and progression. The studies will include a minimum of five hundred patients. With this information it will be possible to predict which patients will respond best to each treatment and so select the most suitable therapy in every case.

During 2012 the Spanish consortium made great progress. The first epigenomes of CLL of over one hundred patients have been deciphered. Research revealed over a million epigenetic alterations, an unexpected finding that indicates a massive reprogramming of the epigenome of cancerous cells. New epigenetic biomarkers were identified that define sub-groups of patients with different clinical evolution.

PROJECT ADDRESS

www.cllgenome.es

RESPONSIBLE

Elias Campo, Director of Research at Hospital Clínic and Professor of Pathological Anatomy at the University of Barcelona (UB)