



# GENOME SPAIN INITIATIVE: National DNA Bank



We manage collections of DNA samples representative of the Spanish population and provide them to the scientific community, ensuring their rational, effective, ethical and legal utilization to guarantee the autonomy and confidentiality rights of the donors and promoting genomic research in Biomedicine.

## INTRODUCTION

The **National DNA Bank** is a technological platform created in March 2004 by a collaboration agreement between **Genome Spain Foundation, University of Salamanca** and **the Health Service of the Regional Government of Castilla y Leon**, with the aim of promoting genomic research in Spain. Recently, October 2006, the structure of the **National DNA Bank** has been enlarged with four new nodes focused in collecting DNA samples from patients with prevalent diseases: **Cancer, cardiovascular, neurological and metabolic diseases**. The current structure of the **National DNA Bank** is coordinated from the Central Node at the University of Salamanca (Director Dr. Alberto Orfao).

## AIM

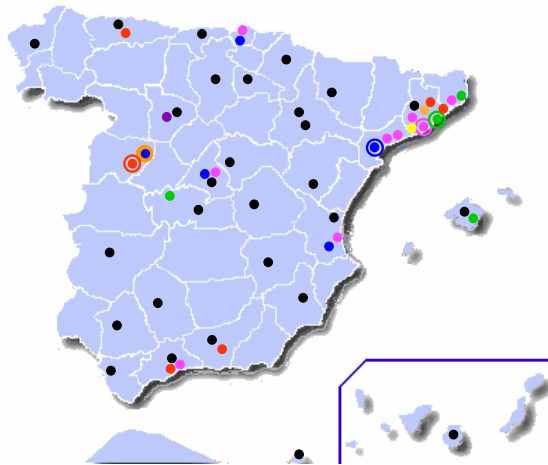
To create collections of DNA samples from individuals representative of the Spanish inhabitants, in order to provide **representative samples** of DNA to the scientists, facilitating the analysis of the specific DNA haploid map of the Spanish population and its potential association with specific diseases.

## STAGES OF THE PROJECT

**STAGE I:** The **National DNA Bank** has created a collection of DNA samples and their associated clinical, genealogical and life-style data representative of the healthy Spanish population, through the collaboration with a total of 22 regional blood transfusion centers distributed all over Spain.

**STAGE II:** The **National DNA Bank** is progressively incorporating DNA samples from patients diagnosed with some of the most prevalent diseases present in Spain (**cancer, cardiovascular, neurological and metabolic diseases**) through the integration of additional nodes to its structure. Therefore, scientists will be able to use these samples in order to investigate what genes influence development or protection against these diseases in the Spanish population, what diseases are influenced by the environment where the person lives and what genes influence effectiveness/resistance to specific treatments.

## NETWORK STRUCTURE



- Central node
- Oncologic node network
- Neuropsychiatric node network
- Cardiovascular node network
- Metabolic node network
- Blood transfusion centers network
- Consejería de Sanidad JCYL
- Foundation for Fibromyalgia  
Chronic Fatigue Syndrome
- Hospital Vall d'Hebron

## SAMPLES

COLLECTIONS	NUMBER of SAMPLES	AVAILABILITY
<b>Population-based:</b> Spanish control population	1.000	At present
Cardiovascular study	3.488	At present
<b>Case-control: Prevalent diseases</b>		
Cancer <sup>(1)</sup>	2.632*	Early 2008
Cardiovascular <sup>(2)</sup>	1.000*	Early 2008
Neurological <sup>(3)</sup>	1.195*	Early 2008
Metabolic <sup>(4)</sup>	1.000*	Early 2008
<b>Other diseases</b>		
Fibromyalgia and chronic fatigue	242	At present

\* Number of expected samples

## TYPE OF PREVALENT DISEASES

- (1) **Solid tumors:** colorectal, breast, head and neck, lung, prostate.  
**Hematological disorders:** chronic lymphocytic leukemia, chronic myeloproliferative syndrome, acute leukemia, non-Hodgkin lymphoma.
- (2) **Hypertension, myocardial infarct, cerebrovascular disease, cardiac insufficiency, auricular fibrillation.**
- (3) **Schizophrenia, Alzheimer disease, Parkinson, Multiple sclerosis, Amyotrophic lateral sclerosis, Idiopathic Dystonia.**
- (4) **Diabetes mellitus type I and II, MODY, obesity, morbid obesity, dyslipemia.**

## ACCESS TO SAMPLES

The **National DNA Bank** offers DNA samples and associated data to Spanish, European or international research groups (for cooperative projects in which Spanish research groups actively takes part) for the development of genetic/genomic research projects, whenever the projects have demonstrated to be of scientific importance.

All requests should be formally applied through the web site <http://www.bancoadn.org> ("Solicitud de muestras de ADN para proyectos de investigación") and should be accompanied by a detailed description of the scientific project (including title of the project, principal investigator, parameters to analyze, financial support, as well as the number of DNA samples and associated information required). Requests will be evaluated by two external committees: the Scientific External Committee and the Advisory Committee of Experts on Ethical, Economic, Environmental, Legal and Social Issues. The **National DNA Bank** will send the requested DNA samples once both committees have approved the project.

For more information visit the web site at <http://www.bancoadn.org>

Management System Standards **UNE-EN-ISO 9001:2000**

