



PRESENTATION

SPEEDING UP PROGRESS AGAINST CANCER



CANCÉROPÔLE
LYON AUVERGNE
RHÔNE - ALPES

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P resentation



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A BIT OF HISTORY

In 2001, the Rhône-Alpes Region decided to “set up an ambitious program to fight cancer that brought together academic, clinical and industrial players in order to drive the area’s economic development.” In 2003, this mobilization spread nationwide with “the identification of cancer research clusters with a care-research continuum at an inter-regional level” (First French Cancer Plan, measure 66). Cancéropôle Lyon Auvergne Rhône-Alpes (CLARA) was launched.

2001

Rhône-Alpes local authorities initiate a research-based program to fight cancer combining academic and industrial expertise.

2003

First French Cancer Plan
Creation of the cancéropôles

2005

Auvergne joins CLARA.
Launch of a tools and facilities development program dedicated to seven platforms
Launch of the CLARA Proof of Concept program

2006

First CLARA Scientific Days

2008

First CLARA Industrial – Academic Meetings

2011

Launch of the OncoStarter accelerator program
First Franco-Chinese Symposium in Shanghai

2013

Operational convergence with the Lyonbiopôle life sciences competitiveness cluster

2014

Inauguration of the Hyg e Center



A LONG TRADITION

- 1923** Opening of the Léon Bérard Cancer Center in Lyon
- 1965** Setup of the International Agency for Research on Cancer in Lyon
- 1973** Opening of the Jean Perrin Cancer Center in Clermont-Ferrand
- 1988** The first oncogenetics consultations in France, in Clermont-Ferrand followed by Lyon
- 1989** The Rhône is among 5 pilot counties in France for organized breast cancer screening
- 1999** Creation of the Albert Bonniot Institute in Grenoble
- 2011** Creation of the Cancer Research Center of Lyon; Lyon awarded the Integrated Cancer Research Site label
- 2014** Creation of the Lyon Civil Hospitals (HCL) Cancer Institute of Lyon



THE TRANSVERSAL ROLE OF CLARA

- Drive the scientific community to stimulate collaborative and interdisciplinary research in the region
- Foster the emergence of oncology projects through funding programs
- Encourage the transfer of academic research to clinical and industrial applications to the benefit of patients and local economy

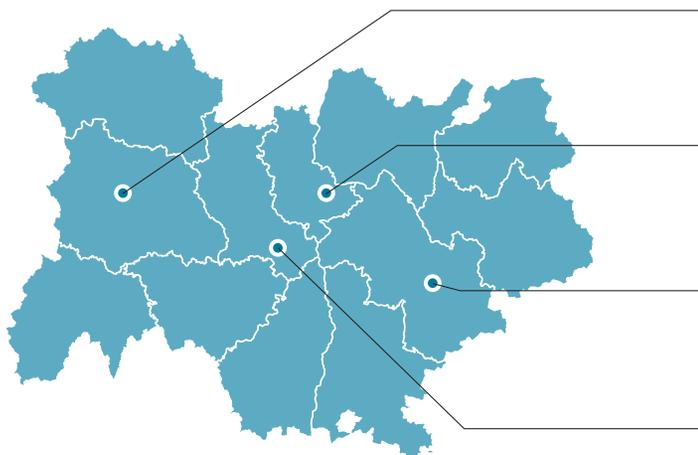
CLARA brings together the Rhône-Alpes-Auvergne region's scientific, clinical and industrial communities working in the field of cancer research. It aims to bring laboratory breakthroughs to cancer patients as quickly as possible, while driving the area's economic development and fostering the emergence of large-scale interdisciplinary research networks.

WORKING TOGETHER TO SPEED UP RESEARCH



A RENOWNED NETWORK OF EXCELLENCE

Today, the Rhône-Alpes Auvergne region offers a dense network of experts and organizations in the cancer research field. This fertile ecosystem strengthens the position of the area's players in the oncology sphere at the European level.



 Distribution of cancerology researchers

 Number of companies developing cancerology products

 Universities

 University hospitals, cancer treatment centers, cancer institutes

 International Agency for Research on Cancer



A HUB OF EXPERTS

1 500 researchers in the field of cancer

1 700 healthcare professionals in the field of cancer

Over **70** partners from the pharmaceutical and technology sectors targeting the oncology market





RENOWNED CLINICAL EXPERTISE

- Sarcoma ▲
- Lymphoma ■
- Lung cancer ■
and thymoma ▲
- Gynecological cancers:
ovaries ▲ ■, trophoblasts ▲
- Breast cancers ■
- Neurological cancers ■
- Myeloma ■
- Melanoma ■
- Peritoneal cancers ▲
- Thyroid cancers ▲

▲ Rare cancer reference center accredited by the French National Cancer Institute (INCa)

■ Members of INCa clinical research groups

Figures: INCa, 2014

Since 2003, CLARA has worked to energize and enrich cancer research by mobilizing the Rhône-Alpes Auvergne area's strengths in the field. This organizational effort aims to go beyond institutional, geographical, sectorial and subject-related barriers in order to synergize these strengths so as to more effectively contribute to the fight against cancer.



MOBILIZING SCIENTIFIC FORCES

Six fields of excellence



TUMOR PROGRESSION AND RESISTANCE, INNOVATIVE THERAPIES

Tumor escape, targeted therapies, drug discovery

INFECTIONS AND IMMUNITY

Viral and bacterial-induced cancers, immunomodulation, microbiota

NANOMEDICINE, HEALTH TECHNOLOGY

Imaging, micro and nanotechnologies for diagnostics, surgery, therapy, radiotherapy

BIOINFORMATICS, MODELING

Omic technologies, mass data analysis, mathematical modeling

PREVENTION, INDIVIDUALS AND SOCIETY

Prevention research, organization of care, therapeutic education, social inequalities

ENVIRONMENT, NUTRITION AND EPIDEMIOLOGY

Relationships between cancer and physical activity, nutrition, environment, occupational exposure

CUTTING-EDGE FACILITIES

The fruit of an ambitious local government policy, CLARA is working to set up facilities and resources for the region's players in the cancer research field. They provide scientists access to a number of high-performance, innovative technologies, expertise and know-how. This range meets all of the players' needs, from laboratory research to bedside care.



FROM LABORATORY RESEARCH...

- **SCREENING, CHEMICAL LIBRARY, DRUG DESIGN**
Center for Drug Discovery and Development (C3D), Bioactive Molecule Screening Platform (CMBA)
- **GENOMICS, EPIGENETICS, TRANSCRIPTOMICS**
EpiMED, GINA, ProfileXpert
- **METABOLOMICS**
European NMR Center
- **PROTEOMICS**
EDyP Services, Prométhée
- **IMMUNOTHÉRAPIES, IMMUNOMONITORING**
ImmunAlp, flow cytometry platform
- **ANIMAL RESOURCES, FUNCTIONAL EXPLORATION**
Anipath, Tumor Model Laboratory
- **IN VIVO IMAGING**
iRMAGe, OPTIMAL, GAIA
- **BIOINFORMATICS, DATA MANAGEMENT**
Bioinformatics platform
- **BIOBANKS, TUMOR LIBRARIES**
- **RADIOTHERAPY, ION BEAMS**
CERVO platform
- **CLINICAL METHODOLOGY**
PARCC-ARA
- **PUBLIC HEALTH, EPIDEMIOLOGY**
Hygée Center, European Cancer Observatory

...TO BEDSIDE CARE





AMBITIOUS RESOURCES MOBILIZED

17 platforms dedicating part or all of their activity to research on cancer

Including **11** platforms accredited (IBiSA, INCa) or involved in national or international research networks

M57€ in budget allocations by local authorities since 2003

126 direct jobs



A PROVEN LEVERAGE EFFECT

ONCOSTARTER

31 projects funded

M1,4€ in subsidies allocated

PROOF OF CONCEPT

M14,8€ invested by local
authorities and ERDF

M225€ in private funding raised
by companies

Two major programs characteristic of CLARA's action

ONCOSTARTER has fostered the emergence of innovative projects by multidisciplinary research teams since 2011. The program addresses the challenges of translational research (from laboratory to patient) and public health by supporting projects in the fields of prevention and environmental and nutritional factors in cancer.

CLARA PROOF OF CONCEPT has, since 2005, worked to promote the commercial applications of discoveries made at the region's laboratories. The projects supported by this one-of-a-kind program in France aim to demonstrate the proof of concept of tools, services or products at the preclinical or early clinical stages. The projects involve prevention, diagnostics, therapy and improving patient quality of life.



ORIGINAL SUPPORT PROGRAMS





DYNAMIC INTERNATIONAL PARTNERS

Since its creation, CLARA has been working to position the Rhône-Alpes Auvergne region as a world reference in the fight against cancer. The cluster has taken part in many international actions to promote the area's top-flight research expertise far beyond its borders.

It has participated in a host of international projects such as the European Lymphoma Institute (ELI) and the World Sarcoma Network (WSN), and has initiated collaborative projects with China.

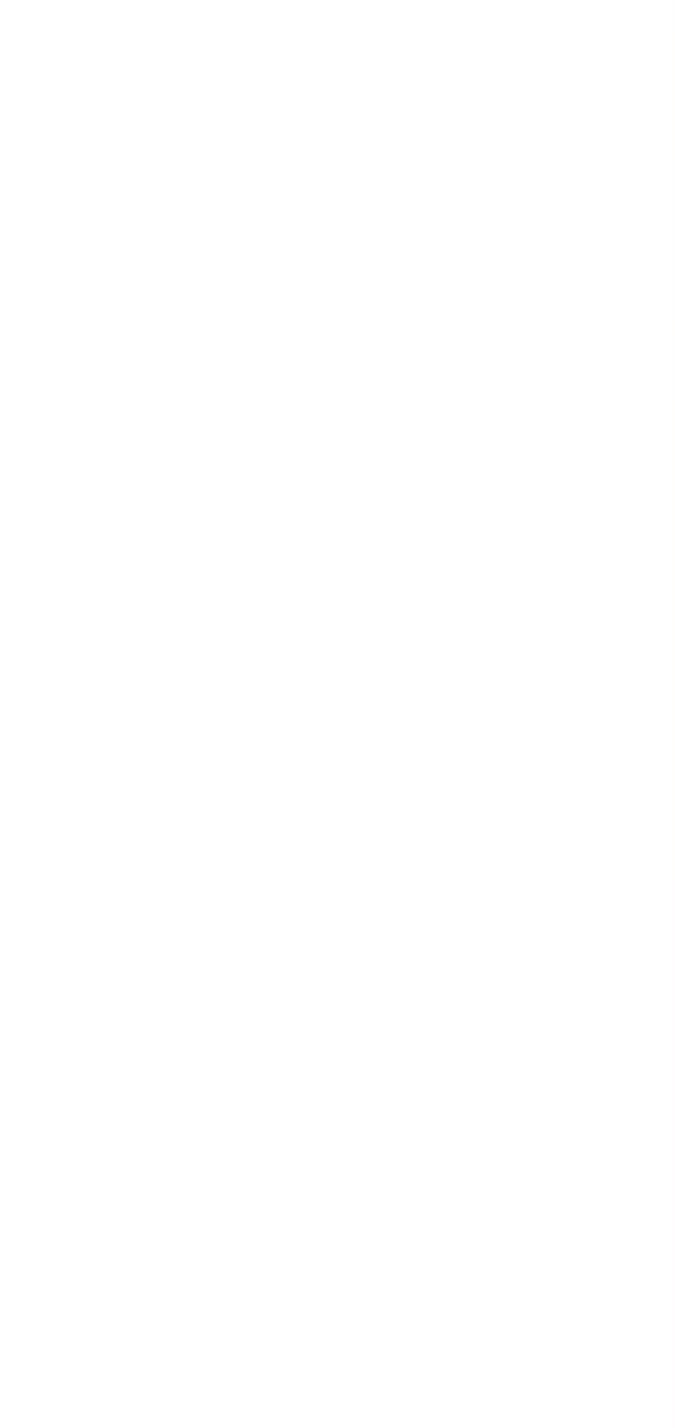


62 *European projects since 2003*



INTERNATIONAL COLLABORATIVE PROJECTS

- Cancer Research Center (DKFZ)
- Heidelberg - Germany
- Catalonia Bioengineering
Institute (IBEC) - Spain
- Federal Institute of Technology
of Lausanne (EPFL) - Switzerland
- Swiss Experimental Cancer
Research Center (ISREC)
- Weizmann Institute - Israel
- Shanghai Cancer Institute -
China



The CLARA Network



RESEARCH ORGANIZATIONS AND CENTERS

International Agency for Research on Cancer



IRUCA



UNIVERSITIES



HOSPITALS



COMPETITIVITY CLUSTERS



ASSOCIATIONS AND FOUNDATIONS

PUBLIC AUTHORITIES





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