



BIOVALIANCE
Bourgogne-Franche-Comté

RÉGION
BOURGOGNE
FRANCHE
COMTE

BIOETHERAPIES & BIOPRODUCTION

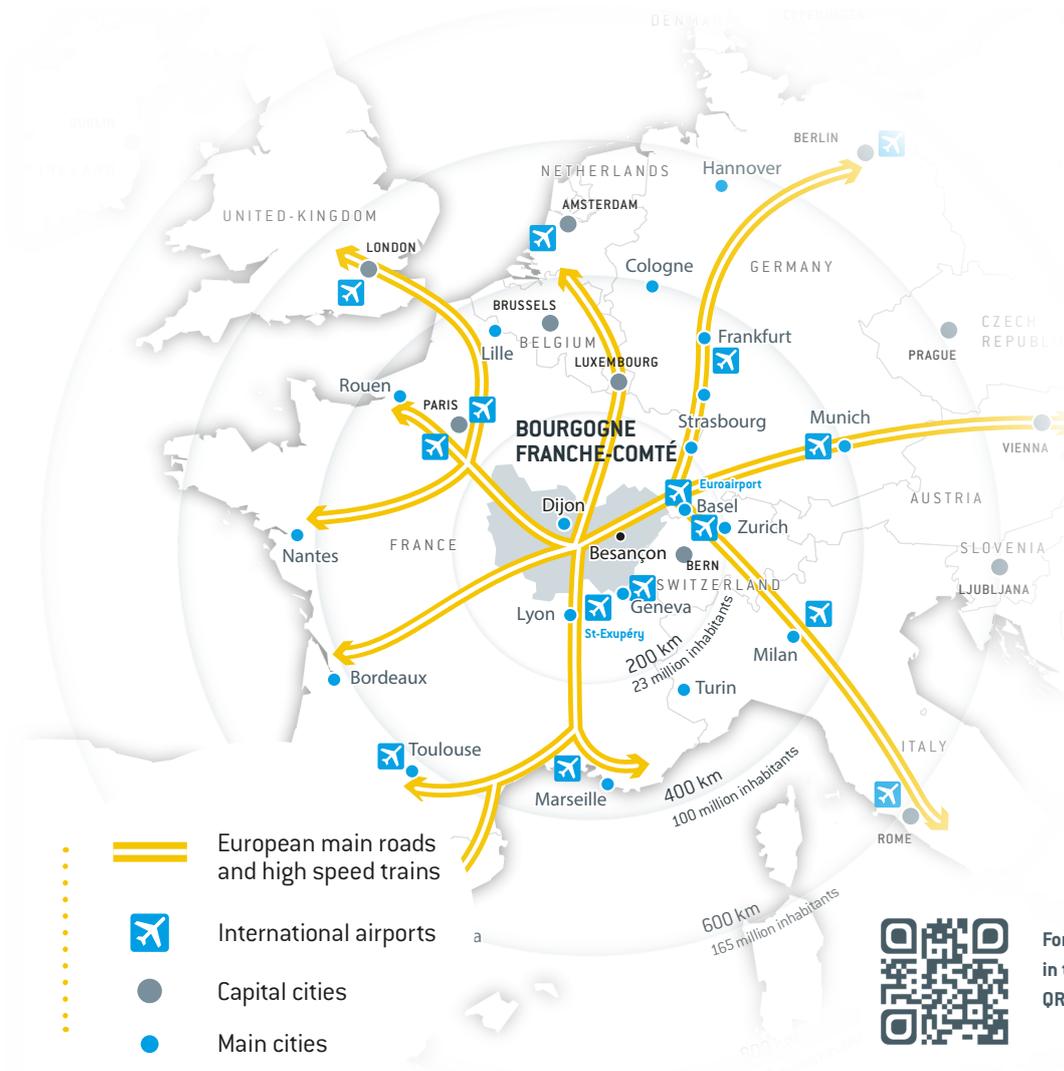
aer
agence économique
régionale de
bourgogne-franche-comté



BOURGOGNE-FRANCHE-COMTÉ, A STRATEGIC POSITION IN EUROPE

With its business parks, infrastructure and business support services, Bourgogne-Franche-Comté, with a population of 2.8 million, including 1.3 million working people (23% of whom are employed in industry), offers the conditions you need to make your projects a success.

A REGION FOR YOUR PROJECTS



For more details on the numbers in this chapter, you can flash this QRCode



500
healthcare
companies



2
university
hospitals



1
cancer
centre



38,000
science students
85,000
students



420,000
establishments
21,400
industrial establishments



14
TCV
stations



6
international
airports
nearby



9
motorways
forming a strategic
crossroads at the
heart of Europe



STRONG PUBLIC SUPPORT FOR THE BIOTHERAPIES SECTOR



NATIONAL SUPPORT THE FRANCE 2030 ACCELERATION STRATEGY

- ▷ Enabling patients to **benefit from the best treatments**
- ▷ Positioning France as a **European leader** in biotherapies and bioproduction
- ▷ **Producing 20 biomedicines by 2030**
- ▷ **Doubling the number of jobs** in bioproduction
- ▷ Developing one unicorn and five medium-sized companies

REGIONAL SUPPORT THE 2024-2028 BIOTHERAPIES & BIOPRODUCTION ROADMAP

In line with the national acceleration strategy, the Bourgogne-Franche-Comté region has drawn up a strategic framework with a roadmap setting out its ambitions for its biotherapies and bioproduction sector, focusing on three areas:

- ▷ **promoting the emergence of innovative medicines** to contribute to our country's sovereignty,
- ▷ **treating citizens at an affordable cost**, both for patients and for our healthcare system,
- ▷ **raising its profile** and becoming a magnet for investment and projects in biotherapies and bioproduction.



BIOVALIANCE
Bourgogne-Franche-Comté

BIOVALIANCE is the brand of the regional biotherapies and bioproduction sector in Bourgogne-Franche-Comté. Reflecting the complementary nature of the stakeholders involved, it illustrates the region's specialisation in the design and production of innovative therapies, as well as the supply of bioactivators and industrial equipment.

Jérôme Durain
President of the Bourgogne-Franche-Comté Regional Council

A COMPLETE BIOTHERAPIES & BIOPRODUCTION ECOSYSTEM*

TREATMENT CENTRES & clinical development



TRAINING



RESEARCH



PLATFORMS & technical/scientific clusters



TECHNOLOGY TRANSFER & INCUBATION





COMPANIES

Biomedicines and therapies

Advesya
ABTX
Carla
Biotherapeutics
Med'Inn Pharma
OPM
URGO Médical
Vetoquinol

Biotechnologies and services

APEX
Biomnigene
Chematech
Corden Pharma
Covalab
Delpharm
Filab
ICTA
Medix Biochemica
Nexidia
Oncodesign
Services
Orinova
RD-Biotech
Smaltis
SON S.A.S.
Theraxel

Equipment, instrumentation, MDs

ARDPI Biotech
Biomanéo
Cellaven
Cellquest
De Dietrich
Demgy
Gerresheimer
Gilson Plastics
IDS
ILSA
JB Tecnic
Macopharma
Sartstedt
Statrice
URGO Médical

SUPPORT & financial engineering

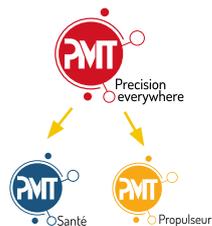
REGION
BOURGOGNE
FRANCHE
COMTE

aer
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bourgogne-franche-comté

santenov
— DIJON BOURGOGNE —

ars
Agence Régionale de Santé
Bourgogne-
Franche-Comté

CCI BOURGOGNE
FRANCHE-COMTÉ



TEMIS
TECHNOPOLE
BESANCON

CANCÉROPOLE Est
Région Bourgogne-Franche-Comté | Grand Est

PUI
BFC
Haut
université
d'innovation

Working together to advance health

“We want every company, organisation and stakeholder in the health sector in Burgundy to be able to call on us, whatever their project, question or problem. Contacts, advice and listening... Santenov is readily available!”

Pascal Auzière
Santenov Dijon Bourgogne Chairman

Santenov supports the pharmaceutical and medical technology sectors in their transition and growth challenges:

- ▷ Digital transition
- ▷ Environmental transition/CSR
- ▷ Economic performance and promotion of professions

Santenov Dijon Bourgogne supports the region's forward-looking industries, which are developing breakthrough innovations in key sectors:

- ▷ Imaging and radiopharmacy
- ▷ Rehabilitation and digital health
- ▷ Bbiotherapies & bioproduction



Sully Santenov© Patriarche

Host your projects on the Sully Santenov showpiece campus, which will house the following over 9,300 m²:

- ▷ Pharma, biotech and healthtech schools and technology platforms
- ▷ Plug & play space for start-ups and biotech (offices, L1/L2 labs)
- ▷ Premises for biopharma, medtech and healthtech (offices, L1/L2/L3 labs)
- ▷ Shared services (restaurant, events, etc.)

Join our dynamic biopharmaceutical ecosystem:

- ▷ 6,000 jobs, 150 companies, €1,500m turnover (2019 figure)
- ▷ The Université Bourgogne Europe UBE ranked in the Top 301-400 in Human Biological Sciences and Public Health and Top 401-500 in Clinical Medicine in the 2024 Shanghai Ranking
- ▷ Dijon University Hospital ranked 15th out of 1,400 hospitals
- ▷ The CGFL: no. 2 cancer centre in France and no. 4 in Europe
- ▷ 95 ha of land dedicated to the pharmaceutical industry
- ▷ 50 ha of building land available

The services we offer – Two programmes to support you

Supporting and accelerating the projects of member start-ups, healthcare companies and academic laboratories in innovation, partnership research, growth, investment and accommodation



Sharing best practice, strengthening cooperation, training on common issues (regulatory affairs, HR, CSR, etc.), identifying business opportunities and expertise via our network

Contact: contact@santenov.com



TEMIS

TECHNOPOLE
BESANÇON

Healthtech Biocluster and Science Park

From research to patients, accelerating innovation in healthcare



BIO Innovation
© E. EME

Spread over 250 hectares, TEMIS brings together location solutions, technical platforms, scientific expertise, access to a wide range of biological resources, cutting-edge equipment, GMP bioproduction capabilities and support for translational and clinical research. Schools, universities and the EFS and university hospital play a central role alongside the 170 companies in the sector.

Fields of expertise combining engineering sciences, health and life sciences:

Microsystems engineering, optics-photonics...
Cell, tissue and genetic engineering,
Regulatory affairs and quality systems.

Areas of application:

ATMP, Biomedicines, Bioprocesses and Bioproduction, Medical devices, MD-IVD, Automation and robotics

Engineering, Business and Industrialisation facilities

- ▷ Pôle d'innovation en biothérapies (Biotherapy innovation cluster) – EFS: Biomedicine industrial integrator France 2030
- ▷ GMP bioproduction suites – EFS
- ▷ Local production GLP, GMP: mAb, DNAP/RNAm, LSP, Stem cell, etc.
- ▷ 170 Med-Biotech companies brought together by the PMT competitiveness cluster
- ▷ Project engineering: feasibility studies, clinical access, trials, financing, IP, etc.

Easy access from the technology park's two hubs:

TEMIS Innovation specialising in medtech microsystems

- ▷ 4,000 m² business incubator-hotel: offices, workshops
- ▷ 850 m² usable ISO 5 to 7 cleanroom space
- ▷ MIMENTO micro-manufacturing and manipulation platforms
- ▷ FEMTO Engineering development centre, business/research interface

BIO Innovation dedicated to biotherapies and bioproduction

- ▷ 2,300 m² of private offices, open-plan offices and conference rooms
- ▷ 500 m² of plug&play laboratories (L1, L2) equipped and operated by the EFS (Blood Service)
- ▷ BIONOVEO development centre, interface between business and research
- ▷ University Hospital-Inserm clinical investigation centre

- Two engineering schools, SupMicrotech and ISIFC, with their partnership platforms
- Two research institutes, FEMTO-ST (CNRS) and RIGHT (Inserm), open to companies via FC Innov'
- 25,000 students – 1,200 researchers

They chose TEMIS-Besançon: Advesya, Affluent Medical, Carl Zeiss Meditec, Carla Biotherapeutics, CellQuest, Cisteo, Ilsa, Macopharma, Maincare, Medix Biochemica, RD Biotech, Sophysa and Statice, etc.

Request a visit – More information:
contact@temis.org - +33 03 81 50 46 95



BIO Innovation – EFS laboratory
© Grand Besançon Métropole

RESEARCH & INNOVATION*

RESEARCH LABORATORIES



UNITÉ DE RECHERCHE EN SANTÉ

SUPERVISORY INSTITUTIONS:

EFS BFC, INSERM, uMLP

New treatments that modulate the immune system to prevent it from going into overdrive or rejecting a transplant, or making it more capable of eliminating a tumour



Center for Translational and Molecular medicine

SUPERVISORY INSTITUTIONS:

UBE, INSERM, Institut AGRO Dijon

Translational research centre in Molecular Medicine working on various themes: therapies and immune response in cancer, epigenetics, TNF receptors, etc.



Institut de Chimie Moléculaire
UNIVERSITÉ BOURGOGNE EUROPE

SUPERVISORY INSTITUTIONS:

UBE, CNRS

Intelligent imaging probes, multimodal imaging technologies, theranostic agents and internal vectorised radiotherapy, for applications in oncology in particular



Soins Intégrés, Nanomédecine, IA & Ingénierie pour la Santé

SUPERVISORY INSTITUTIONS:

uMLP, UTBM, Besançon University Hospital

Integrated care, healthcare engineering, new theranostics approaches & nanotechnologies, biomarkers, artificial intelligence, etc.



Food and wine sciences & Technology

SUPERVISORY INSTITUTIONS:

UBE, Institut AGRO Dijon, INRAE

Processes for culturing, stabilising and shaping human commensal probiotics, including anaerobes



SCIENCES & TECHNOLOGIES

SUPERVISORY INSTITUTIONS:

CNRS, uMLP, SUPmircotech-ENSMM, UTBM

Physiological microsystems, microfluidics, microrobotics for manipulating biological objects, biosensors, biofunctionalised surfaces, vision, artificial intelligence, organs-on-a-chip, extracellular vesicles and characterisation at micro and nanometric scales



SUPERVISORY INSTITUTION:
UBE

Imaging and Artificial Vision: vision systems, real-time image analysis, AI for signal and image analysis, multi-modal imaging systems, robotic control, etc.



Commissionaire et Intelligence Artificielle Biomédicale

SUPERVISORY INSTITUTIONS:
UTBM, UBE

Research and innovation in artificial intelligence to design the AI of tomorrow



Laboratoire Interdisciplinaire Carnot de Bourgogne

SUPERVISORY INSTITUTIONS: UBE, CNRS

CO-SUPERVISORY INSTITUTION: UTBM

Advanced technologies for innovative therapies, theranostics & intelligent bioproduction: manufacture of microsystems integrating photonics, micro-fluidics, mechanics and automation; nanosensors and biosensors; nano-vectorisation and nano-functionalisation; nanoparticle elaboration; enzymology and bioproduction; digital twins; modelling of biological systems



SUPERVISORY INSTITUTIONS:
uMLP, CNRS

Development of biomaterials based on coordination complexes with anticancer/antidiabetic activity or conductive polymers derived from antibacterial ionic liquids



mesocentre de calcul defranche-comté

SUPERVISORY INSTITUTION:
UBE

The MesoBFC computing mesocentre is a scientific research support platform for researchers specialising in high-performance digital simulations and modelling in various scientific fields, including health



Centre des Sciences du Goût et de l'Alimentation

SUPERVISORY INSTITUTIONS:
CNRS, INRAE, INSTITUT AGRO DIJON AND UNIVERSITÉ BOURGOGNE-EUROPE

The Centre des Sciences du Goût et de l'Alimentation (Centre for Taste and Food Science) is a joint research unit run by CNRS and INRAE, as well as two public higher education institutions, the Université de Bourgogne and the Institut Agro engineering school



LE PÔLE D'INNOVATION EN BIOTHÉRAPIES (PIBT – BIOTHERAPIES INNOVATION CLUSTER)



Accredited as a Biotherapies & Bioproduction Integrator in May 2023, the PIBT's ambition is to drive innovation by rallying the stakeholders and skills needed to carry out every project, such as:

- ▷ The RIGHT and CTM laboratories
- ▷ Breakthrough engineering in FC'INNOV, the result of FEMTO-ST research, helps to remove the technological barriers to current production processes
- ▷ University hospitals and treatment centres to identify clinical needs and guide and approve therapeutic strategies

TREATMENT CENTRES & CLINICAL TRIALS



Immunity, metabolism, inflammation, eye-heart-brain interactions, integrative approach to care in oncology, haematology and rare diseases: from genomics to therapeutic innovations



Development and evaluation of biotherapies in oncology and haematology, transplantation, tissue and organ grafts, inflammatory diseases, etc.



Hospital and research centre for cancer, personalised medicine, molecular imaging, internal vectorised radiotherapy, etc.



France's leading supplier of cells and tissues for transplants
Leading producer of advanced therapy drugs for phase I and II clinical trials

TECHNOLOGY TRANSFER, PROJECT INCUBATION AND ACCREDITATION



R&D centre of the FC'INNOV Foundation, developing new therapeutic and diagnostic strategies and bioproduction processes, building on the expertise of RIGHT and the EFS



SATT SAYENS detects, protects and develops innovation from public research in Lorraine, Sud-Champagne Ardenne (Troyes) and Bourgogne-Franche-Comté, with a view to transferring it to companies or creating start-ups



BFC's national public research incubator, offering a bespoke 36-month DeepTech entrepreneurial pathway, particularly for Medtech, Biotech and Pharma projects



Pôle des Microtechniques (microtechnology cluster), a regional competitiveness cluster for the emergence and accreditation of innovative projects. It runs a 'health technologies' cluster of medtech-biotech-pharma companies

OTHER ORGANISATIONS



The Pôle Universitaire d'Innovation Bourgogne-Franche-Comté (PUI BFC – BFC university innovation cluster) aims to capitalise on the results of academic research and to support entrepreneurship and deep-tech start-ups through its 'Health, diagnostics and connected biotherapies' strategic hub



Supporting, structuring and promoting cancer research in Bourgogne-Franche-Comté and the Grand Est region

CLIP² ACCREDITED CENTRE FOR EARLY PHASES

This accreditation is awarded by the French National Cancer Institute. In the region, it has been awarded to the Early Stage Unit (U2P) at the Georges-François Leclerc Centre, the Besançon University Hospital (Immuno-Oncology) and the Dijon University Hospital (Clinical Haematology)



EXAMPLES OF INNOVATION PROJECTS



Biolmp: optimising the manufacture of biomedicines

Biolmp is a large-scale project under the RIS 3 Call for Projects, led by a consortium of academic and industrial players specialising in bioproduction, biotechnologies and microtechnologies. Its aim is to develop and deploy innovative technological and biotechnological solutions to optimise the manufacturing processes for biomedicines.

Partners: Etablissement Français du Sang BFC, CellQuest, RD-Biotech, Diaclone, Med'Inn'Pharma, RIGHT and FEMTO-ST laboratories, FC'Innov, Université Marie et Louis Pasteur.



ERDF grant: €17,884k under the RIS 3 call for projects



COMÈTE: radiotheranostic molecules

The COMÈTE project involves the development of a portfolio of radiotheranostic molecules for the diagnosis and treatment of advanced digestive cancers (internal vectorised radiotherapy).

Partners: Oncodesign Precision Medicine (OPM), the Institut de Chimie Moléculaire de l'Université de Bourgogne Europe (ICMUB, UMR CNRS 6302) and the Centre Georges-François Leclerc (CGFL).



ERDF grant: €7,769k under the RIS 3 call for projects

GENESIS: artificial skin for burn victims

As a specialist in wound healing, URGO MEDICAL is leading the Genesis project, with the aim of developing a ready-to-use artificial skin that can cover burned areas in a single operation. Such a protocol would considerably reduce patient pain and cut costs for the healthcare system.

Partners: Etablissement Français du Sang de Nantes, an AFM-Téléthon laboratory, Dassault Systèmes and LBTI (CNRS/Université Claude Bernard Lyon 1).



BFC Region grant: €250k awarded to the company ADHARA for the construction of the R&D laboratory dedicated to this project, as part of the support scheme for structural projects



CARTALLEU clinical trial

A phase 3 clinical trial called CARTALLEU is underway in 5 European countries to confirm the validity of the treatment and obtain approval from the European Medicines Agency.

Building on its experience in development and bioproduction, EFS Bourgogne-Franche-Comté has been entrusted with the production of batches for all French patients.

SPECIALIST TRAINING*



From BUT (university technology bachelor's) to master's degree level, courses in biotechnology, pharmaceuticals, cell biology and engineering, instrumentation, microbiology, genomics, AI, etc.



BUT (university technology bachelor's), bachelor's degree, master's degree: courses in biological and pharmaceutical engineering, innovation in biotechnologies, immune interactions and cell engineering, cell and molecular signalling, AI, etc.

INTHERAPI GRADUATE SCHOOL

INTHERAPI offers a training and research programme at Master's and PhD level. It is supported by laboratories and technical research centres and brings together three doctoral schools in Bourgogne-Franche-Comté.

The nine Master's courses cover three areas:

- ▷ **Vectorisation of bioactive substances**
- ▷ **Pharmaco-imaging and multimodal imaging**
- ▷ **Targeted therapies for inflammation/Cancer immunotherapy**

ONE HEALTH GRADUATE SCHOOL

Led by the Université de Bourgogne Europe, the One Health Graduate School refers to a concept that unifies animal, plant, environmental and human health.

It brings together multidisciplinary and interdisciplinary research based on new technologies such as artificial intelligence and nanotechnologies.



SPECIALIST TRAINING*

ENGINEERING SCHOOLS



Biomedical engineering,
Clinical affairs and Regulatory
affairs in the MD industry,
Quality management



Mechanics and
microtechnology,
bio-microsystems
for health option



Information technology, Digital
health, Artificial intelligence
applied to health,
Bachelor's in AI in health



Information Technology –
Electronics
E-health/industry 4.0
specialism



Connected objects,
Embedded systems,
Artificial intelligence,
Robotics and Cobotics



Food, microbial
biotechnologies and food
fermentation



Business engineering,
Chemistry-Biotech
specialism

POST-SECONDARY SCHOOL COURSES



Lycées and CFAs (apprenticeship training centres) offer specialised training courses: STL (laboratory science and technology) Bac (baccalaurate), biotechnology specialism, BAC pro in pharmaceutical industries, BTS (higher technician certificate) bioproduction technician, BTS biotechnologies, etc.



BTS in analysis and
biotechnology (ANABIOTEC),
quality and safety
(BIOQUALITE),
food science
(BIOQUALIM)



Bachelor's in
Pharmaceutical
Bioprocess
Engineering

UNIQUE EXPERTISE

SUPPORTING BIOTHERAPIES AND BIOPRODUCTION

BIOPRODUCTION PROCESSES

Micro-fluidics
Micro-mechanics
Micro-robotics
Biosensors
Microchips

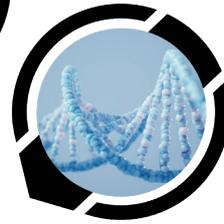


TISSUE ENGINEERING

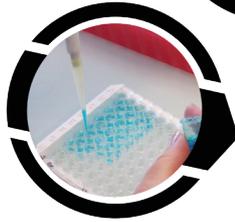


CELL AND GENE ENGINEERING

Biological materials for research and clinical applications (cells, antibodies, recombinant proteins and DNA plasmids)



MEDICAL DEVICES



CHEMISTRY



CLINICAL TRIALS



ARTIFICIAL INTELLIGENCE

PRECLINICAL AND CLINICAL BIOMARKERS



THERANOSTICS

(contraction of 'therapy' and 'diagnosis') aims to both diagnose and treat cancers as part of a unified approach. The drug is marked with a radioactive isotope (radiopharmaceutical) to specifically destroy tumours.



DEDICATED REGIONAL EVENTS

INNOVATIVE THERAPIES DAYS

INNOVATIVE THERAPIES DAYS



 Grand Kursaal – Besançon

 October – every year

An international event supported by the PMT microtechnology cluster, this symposium is dedicated to innovative therapies (CAR-T cells, cell and gene therapies, extracellular vesicles and secretome), particularly in oncology, inflammatory diseases and regenerative medicine.

Through posters and conferences, a networking platform and an exhibitors' village, this event brings together academics, biotechs and industry players around a programme ranging from proof of concept to market access, promoting exchanges, strategic collaborations and shared experience.

JiIC Cancer immunology and immunotherapy days



 University – Dijon

 December – every 3 years

Conference and discussion days organised by members of the Centre de Recherche Translationnelle en Médecine Moléculaire (CTM – Centre for Translational Research in Molecular Medicine) and EPHE-PSL.



 Work-linked training between BFC and the Grand Est region

 Every 2 years

Conference on the following themes (different edition for each edition):

- ▷ Radiotherapy and combined treatments
- ▷ Nuclear medicine and internal vectorised radiotherapy
- ▷ Nanoparticles in medicine
- ▷ Innovative technologies
- ▷ Immunotherapy
- ▷ Biomarkers

**FIND OUT ABOUT ALL THE
EVENTS TAKING PLACE
THROUGHOUT THE YEAR ON
THE [BIOVALIANCE.COM](https://www.biovaliance.com) CALENDAR**



SCAN
FOR MORE INFO



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**Local economic developers
in all 8 of the region's departments**

www.aer-bfc.com



THE REGIONAL ECONOMIC AGENCY OF BOURGOGNE-FRANCHE-COMTÉ

works closely with stakeholders in business development, innovation, training, and employment:



Business project engineering by strategic sector and region



Financial engineering



Innovative project engineering, ecological transition and energy recovery



Economic changes



Promotion and communication



AER BFC is a member of the French Care community, demonstrating its commitment to innovation in healthcare.