Major companies, SMEs, technology platforms, services

bioPmed Piemonte Innovation Cluster

www.biopmed.eu bioPmed is the regional innovation cluster dedicated to healthcare created in 2009 thanks to the public funding of Piemonte Region. It gathers 80 members, such as companies, universities, research centres, foundations and associations and represents the main reference point for life sciences in Piemonte. The bioPmed cluster has ongoing synergic collaboration with other local innovation clusters: food and agriculture, ICT, mechatronics, new materials, sustainable chemistry, textiles. Inter-clusters projects are developed on functional foods, bioinformatics, diagnostics, medical biomaterials, biomedical engineering.

Converging technologies

The strong skills existing in other sectors such as ICT, electronics, new materials and nanotechnologies have favoured the achievement of significant results and expertise in bioinformatics, e-health, diagnostics and biomedical equipment.

- Laboratories, pilot plants and production facilities of important diagnostics, pharmaceutical and cosmetics companies, such as Bracco Imaging (www.braccoimaging.com), Merck Serono (www.merckserono.it), Sorin Biomedica Cardio (www.sorin.com), DiaSorin (www.diasorin.com), ABC Farmaceutici (www.abcfarmaceutici.it), Sicor (www.tevapharm.com) etc.
- Innovative companies in the pharmaceutical, diagnostics and regenerative medicine sectors, as shown by the cases of Creabilis Therapeutics (www.creabilis-sa.com), Advanced Accellerator Applications (www.adacap.com), Medestea (www.medestea.it), A. Costantino & C. (www.costantino.it), Ephoran Multi Imaging Solutions (www.ephoran-mis.com), Progefarm (www.progefarm.it), Amnol (www.amnol.it), ABLE Biosciences (www.ablebiosciences.com), Procelltech (www.procelltech.net) etc.



- Growing biomedical companies such as CID (www.cidvascular.com), Dipromed (www.dipromed.eu), Eltek (www.eltekgroup.it), Intrauma (www.intrauma.com), Im3D (www.im3d.com), Nobil Bio Ricerche (www.nobilbio.it) and E-health companies such as bMooble (www.bmooble.com), Laser (www.laser-group.com), Regola (www.regola.it), moltosenso (www.moltosenso.com) etc.
- · Companies in other sectors where the know-how in life sciences is an element of competitiveness, such as food (Gruppo Mofin Alce - www.mofinalce.it) and environment (BSA Ambiente - www.bsaplanet.com, Novamont – www.novamont.com)
- R&D centres, concentrated mainly in clusters located in and around Torino and specialised in the sectors of health - mostly oncology and immunology, central nervous system, proteomics, imaging, molecular biology and

For further information on life sciences in Piemonte: www.biopmed.eu





shop to get in touch and make

business with Piemonte-Italy.

economic system, to get

leisure and travel.

tourist vocation.

information on opportunities

in the area, to find a quality

destination for direct investment,

The Agency provides a complete

range of free services to foreign

companies wishing to locate in the

area, searching for suppliers and

requiring training in international

trade and commercial strategies,

The Agency matches the regional

expressed by international markets

and proposes targeted activities to

production offer with the needs

connect highly qualified local

companies with foreign partners

such as incoming trade missions for

cooperation with other international

Piemonte Agency collaborates with

foreign companies willing to locate

in the region sharing knowledge of

the many opportunities the region

responsive, tailored assistance at

has to offer. It provides free,

every stage of the investment

project, including aftercare

foreign business delegations, b2b

meetings, the participation of

international fairs, projects for

partners' research in mutual

organisations.

activities.

Piemonte Agency

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Fax +39 011 6965456

lifesciences@centroestero.org

investment@centroestero.org www.centroestero.org

Piemonte's enterprises to

willing to discover Piemonte's

partners in a variety of sectors,

to discover the perfect host for

Piemonte Agency is the one stop The Torino Chamber of Commerce is a public institution with autonomous statute, regulations The Agency is the reference point management and accountability, to come to know about the local and relies on a flexible, innovation and efficiency-based structure.

CAMERA DI COMMERCIO INDUSTRIA ARTIGIANATO E AGRICOLTURA DI TORINO

Our Mission

The mission of the Chamber is to foster the growth of the local economy and enhance it through effective and targeted initiatives, speaking on behalf of more than 237,000 companies working in the Province and registered in the Torino Chamber of Commerce's Registar of Enterprises.

The Torino Chamber of Commerce promotes the local excellencies abroad with a focus on the hi-tech sectors such as automotive, aerospace, IT, nanotech and biotech.

In order to foster technology transfer, the Torino Chamber of Commerce coordinates and manages ALPS Consortium, a contact point of the Enterprise Europe Network, which is present in more than 40 countries.

Furthermore the Chamber can count on a proprietor network of foreign offices based in Eastern Europe, the Mediterranean Area, Asia and America.



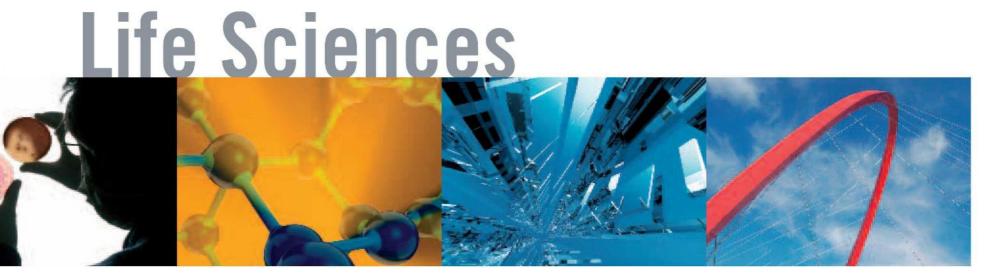
The Torino Chamber of Commerce provides both local and foreign companies interested in international cooperation with a full range of services:

- access to local and national
- financing
- support on EU funding schemes, research projects, legislation and
- IPR services
- identifi cation and promotion of technology/commercial company profiles
- advisory services on international trade - reliability analysis on both local and
- foreign potential partners organization of both incoming and outgoing trade missions
- organization and participation in international technology brokerage and b2b events
- data and statistics.

Our services are free, responsive, tailored to your needs and totally confidential.

orino Chamber of Commerce Industry Crafts and Agriculture Via San Francesco da Paola, 24 10123 Torino ITALY Ph. +39 011 5716363 Fax +39 011 5716369 globus@to.camcom.it www.to.camcom.it

A favourable environment



in Torino Piemonte

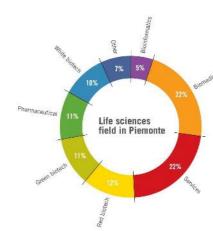
Northwest Italy

Facts & figures

- 4.5 million inhabitants
- € 123.9 billion GDP € 38.5 billion exports of goods
- and services Over 200 public and private R&D centres, 380 laboratories, 4 universities, 6 science and technology parks
- 100,000 students enrolled in Piemonte's universities

1st Italian region for:

- private investment in R&D
- expenditure on innovation in the manufacturing sector
- hi-tech patents



Life Sciences in Torino Piemonte

- In a strategic position right in the centre of one of the most dynamic biotech areas in Europe
- 2nd Italian region in terms of biotech companies (source: Assobiotec-Ernst&Young, BioInItaly
- 360 companies operating in the life sciences related fields, mostly streamlined, dynamic and flexible
- 7,000 people employed in life sciences and associated sectors
- More than 3,500 scientists working in life sciences, 60% are active in healthcare and medtech
- 3 public Universities, main drivers for the development of the sector in the region
- Presence of some European standing public and private R&D centres, such as the Candiolo Institute for Cancer Treatment and the Turin Molecular Biotechnology
- One healthcare cluster: bioPmed Piemonte Innovation Cluster
- One science and technology park (Bioindustry Park Silvano Fumero) and 4 incubators specialising in biotechnology and life sciences
- Many organisations work together for the development of life sciences in Piemonte: science and technology parks, bank foundations (Compagnia di San Paolo and Fondazione CRT), public and private research and training institutions, clinical institutes



- 2 seed capital companies investing on life sciences:
- Eporgen Venture www.eporgen.com first Italian company, entirely funded by private investors, dedicated to seed capital investments. Its mission is to
- Piemontech www.piemontech.it provides with venture capital the most promising Piemonte-based companies operating in the sectors of ICT, biotechnologies, biomedics, advanced mechanics, energy, innovative and high value-added

identify and select innovative

projects in life sciences area









Key players

Presence of major local actors in life sciences in Piemonte:

ABC Farmaceutici

www.abcfarmaceutici.it Italian pharmaceutical group committed to research. development, manufacturing and commercialisation of pharmaceutical products and active ingredients. The plant is a modern example of high technology in the pharmaceutical manufacturing field.

Bracco Imaging

www.braccoimaging.com International group active in the healthcare sector through Bracco Imaging (diagnostic imaging), Pharma (prescription and over the counter drugs), Acist Medical Systems (advanced injection systems, USA), and Centro Diagnostico Italiano, diagnostic clinic in Milano.

DiaSorin

www.diasorin.com Originated as a diagnostic vision of Sorin Biomedica S.p.A.. Diasorin Group develops, produces, and distributes immunoreagent kits for clinical diagnostics. The mission is to contribute to the improvement of healthcare by bringing to market diagnostic tests that can better orient medical decisions, while curbing public healthcare costs.

Merck Serono www.merckserono.com

A fully integrated preclinical and early clinical development structure covering different stages of drug development. The centre is organised around 6 major scientific areas: toxicology and reproductive toxicology, general & safety pharmacology, PK/PD, bioanalytical science. biomarkers, GMP biological quality control.

www.sanofi.it

Sanofi has core strengths in the field of healthcare with seven growth platforms: diabetes solutions, human vaccines, innovative drugs, consumer healthcare, emerging markets, animal health and the new Genzyme. In Piemonte Sanofi owns an establishment dedicated to the production of active and intermediate principles of drug industry.

Sicor (Societa Italiana Corticosteroidi) www.tevapharm.com

A wholly-owned subsidiary of Teva, global generic pharmaceuticals leader. Teva is specialised in the development, production and marketing of a wide range of generic and branded products, as well as active pharmaceutical ingredients (API). Sicor is focused in the production of particularly active molecules, including anticancer molecules and different steroids.

Sorin Biomedica Cardio

www.sorin.com The operative company of Sorin Group

FARMACEUTIC

BRACCO

SANOFI

773171

SORINGROUP

Takeda

Takeda Italia Farmaceutici

which operates in the heart valves segment. For more than 30 years, it has been active in the market with a complete portfolio of last generation mechanical, tissue and repair heart valve devices

Takeda Italia Farmaceutici

www.takeda.it Research-based global company whose main focus is on pharmaceuticals. Takeda discovers, develops, manufactures and markets a broad range of superior pharmaceutical products to strive toward better health for individuals and progress in medicine.

University incubators

www.2i3t.it

Two technology incubators of the Università di Torino, specialising in the chemistry-pharmaceuticals and biotechnology fields, provide start-ups with equipped labs and cutting edge shared facilities.

I3P

www.i3p.it

Innovative Enterprise Incubator of the Politecnico di Torino, promotes and supports the creation of hi-tech enterprises, building on the innovative potential developed in research institutions across the territory.

diagnostic, bioengineering and

LIMA and its CRO, ABLE

information science fields. It offers

research facilities, scientific and

services through its own laboratory

Biosciences. Bracco Imaging set up

its own Research Center in the Park,

through its Discovery Bioincubator.

Bioindustry Park offers to young

companies active in the high-tech

sectors a full package of services

that facilitate them in the start-up

run with the support of Piemonte

and spin-off phases. The incubator is

Regional Government in cooperation

with Eporgen Venture. Since 2009,

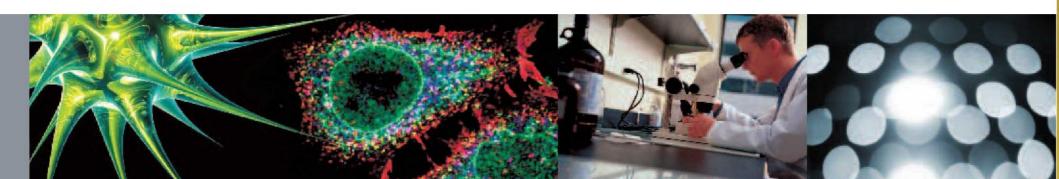
Bioindustry Park has been the

managing company of bioPmed

a unique facility in the Italian life

sciences industry. In addition,

www.enne3.it University Enterprise Incubator, located in Novara, works to promote and develop technologically innovative business projects, with particular attention to the territory of Eastern Piemonte.



Scientific base

Università di Torino (www.unito.it) and Università Piemonte Orientale (www.unipmn.it), with their scientific departments and with the Interfaculty Biotechnology School

(http://biotec.campusnet.unito.it) represent a group of centres of scientific competency of absolute excellence in the field of human health, food and agriculture. The medical diagnostics, biosensoristics and nanotechnologies research centres of Università di Torino are among the best research centres in Italy. The departments and centres of the Università Piemonte Orientale offer several facilities and services for chemical and biological research, while the research activities of the Department of Pharmaceutical Sciences embrace most levels of pharmaceutical analysis.

The Politecnico di Torino (www.polito.it) ensures the convergence of the different technologies, through research activities of its different departments, in particular: DISAT-Department of Applied Science and Technology, DIMEAS-Department of Mechanical and Aerospace Engineering, DET-Department of Electronics and Telecommunications. Furthermore, at the Politecnico there is a graduate programme in Biomedical Engineering.

Technology transfer

A network of 6 science and technology parks, together with the business incubators, contribute to the technology transfer system in Piemonte.

In particular, the Environment Park (www.envipark.com) is the seat of Clean NT Lab (www.cleanntlab.com) which conducts research on innovative coatings, while Tecnogranda (www.tecnogranda.it) develops technologies regarding the production, characterisation and pre-industrialisation in its own



BioIndustry Park Silvano Fumero

www.bioindustrypark.eu The Bioindustry Park, based near Torino and fully operative since 1998, promotes and develops research in biotechnologies and life sciences, hosting enterprises of the chemical, pharmaceutical,

IFE Innovation Front End

www.innovatiofrontend.eu The Innovation Front End (IFE) is the special entry point for companies that want to get in touch with the Politecnico di Torino and Istituto Superiore Mario Boella. Working with the Research and Technology Transfer Area of the Politecnico, it identifies, acknowledges and interprets the research and innovation requirements from the world of business and the public and private operators. Furthermore IFE orients towards R&D services, counselling, testing and analysis.



Research excellence

Oncology, immunology, central nervous system, proteomics, bioengineering, bioinformatics

Bioindustry Park LIMA laboratory

www.bioindustrypark.eu LIMA-Integrated Advanced Methodology Laboratory is organized as a multidisciplinary technology platform. LIMA provides state of the art services and performs exploitation of scientific results in the fields of chemistry, molecular biology, proteomics and bioinformatics. LIMA realizes activities of applied research, technology transfer and training for young researchers.

Cavalieri Ottolenghi Foundation

www.ottolenghi.unito.it

The Foundation performs research of excellence in basic neurosciences oriented towards the prevention, diagnostics, and cure of neurological disorders. It also studies the molecular mechanisms that regulate normal nerve growth and nerve damage and repair, and investigate on the molecular mechanisms of neuronal ageing, and how normal ageing is affected in diseases like Alzheimer. NICO is the Neuroscience Institute of the Cavalieri Ottolenghi Foundation.

Centre of Excellence in Preclinical Imaging (CEIP) - Università di Torino

The Centre, located inside the Bioindustry Park, offers universities, research centres and companies know-how and methodologies based on imaging techniques in order to facilitate and speed up the development of new diagnostic and therapeutic solutions. CEIP is positioned in pre-clinical imaging and image processing with facilities and expertise covering all imaging modalities.

CNR-National Research Council

www.area.to.cnr.it

At regional level, CNR offers a set of R&D laboratories with over 160 researchers, specialising mainly in phytovirology, proteomics and agro-food, immunogenetics and oncology, mycology. Some Institutes located in Piemonte: ISTEC-Institute of Science and Technology for Ceramics, IVV-Institute of plant virology and ISPA-Institute of sciences of food production.

Edo Tempia Foundation

www.fondazionetempia.org The non-profit institution focuses on the study of genic expression in tumoral tissues The pharmacogenomics research lab is based on the

availability of state of the art microarrays technology and activities are run both for the use of microarrays techniques in preclinical studies and for the study of molecular profile of tumours in order to improve diagnosis.

HuGeF-Human Genetics Foundation Turin

www.hugef-torino.org

A private non-profit institution established in November 2007 by the Compagnia di San Paolo, the Università di Torino and the Politecnico di Torino. The Foundation aims at developing research of excellence and post-graduate training in the field of human genetics, genomics and proteomics, creating synergies with national and international projects and attracting talents along with the strengthening of local skills.

INRIM - National Institute of Metrological Research www.inrim.it

INRIM is the national public body with the task of carrying out and promoting scientific research in metrology. Its research activities in measurement science, materials science and innovative technologies are recognised at worldwide level.

IRCC-Institute for Cancer Research and Treatment

www.ircc.it

IRCC, a private non-profit institution, has the mission to make a significant contribution to fight cancer by understanding the basics and providing optimal diagnostic and therapeutic services. It hosts 2 divisions and 4 laboratories with clinical facilities and over 100 international researchers. IRCC houses one of the five Italian centers for advanced scientific research established in 1997 by the G. Armenise -Harvard Foundation, devoted to the study of signal transduction in normal and cancer cells.

www.lisin.polito.it

The Department of Electronics is home to the Laboratory for Engineering of the Neuromuscular System and Motor Rehabilitation. It focuses on 3 main areas: hardware and software design, which provides prototypes of biomedical equipment and promotes technological transfer towards partner companies for final engineering and small series production; signal processing and modelling, providing the mathematical tools for the simulation, interpretation and extraction of information from the EMG signals; basic physiology and clinical

MBC - Molecular Biotechnology Center

www.mbcunito.it

The MBC was inaugurated in 2006 with the aim of unifying the diverse biotechnology research groups of the Università di Torino, in order to create a centre of excellence for interdisciplinary teaching. The MBC offers advanced facilities for teaching and research activities. Here, high technology structures work actively both for technological transfer and for the development of new entrepreneurial ideas.

NIT-Neuroscience Institute of Torino

www.centronit.unito.it

The Institute promotes and runs experimental, theoretical and applied research in the field of the neurosciences, from the study of the cellular and molecular bases of the nervous system to the analysis of advanced integrative and mental activity functions, in normal and pathological conditions.

Oncology Department

Ospedale Molinette, Torino www.molinette.piemonte.it

The department runs research activities thanks to the interaction among various medical, surgical and diagnostic specialisations of cancer radiology treatment and evaluation by epidemiologists. Most of these activities are run within the Centro Oncologico Ematologico Subalpino (C.O.E.S). The same centre also houses the Centro di Ricerca di Medicina Sperimentale (C.E.R.M.S) where basic and translational researches are aimed at various sectors.

Tera Foundation

www.tera.it

Tera develops radiotherapy techniques based on the use of hadron particles and applications of physics and informatics to medicine and biology. Hadrontherapy makes use of beams of protons (hydrogen ions), carbon ions and neutrons.

The ensemble of clinical facilities, including university ones, makes it possible to conduct clinical trials of high quality level. The over 80 hospitals with 20,000 beds can potentially act as clinical network in strong connection with research institutions.

Micro and nanotechnologies know-how

www.latemar.polito.it focuses on the development of advanced devices for diagnostics and therapeutics in the biomedical, pharmacological and food fields, in particular for DNA, RNA, proteins, molecular and cells analysis.

NIS – Nanostructured Interfaces and Surfaces www.nis.unito.it performs basic research and offers applied research services.

DISMIC - Department of Materials Science and Chemical Engineering www.dismic.polito.it

Nano-SiSTeMI www.centronanosistemi.it

ISTEC - Institute of Science and Technology for Ceramics

www.istec.cnr.it INRIM - National Institute of Metrological Research

www.inrim.it