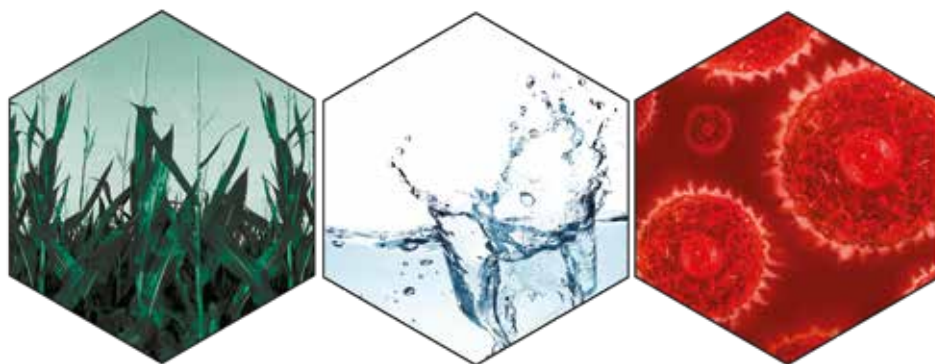


# HEALTHCARE: ITALY ON THE MOVE



## Business opportunities in Italian Life Sciences

Selected companies and clusters



In collaboration with



# **Business opportunities in Italian Life Sciences**

Selected companies and clusters

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# LIFE SCIENCES IN ITALY: FACTS & FIGURES

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- 1.** 1st pharma manufacturer in the EU, with a production value of over € 31 bn in 2017, +4% vs 2016, also thanks to the quality of the supply and services chain.
- 2.** Largest pharma export growth in Europe: from 2007 to 2017 +107% (vs +74% big European Countries average).
- 3.** € 1.5 bn pharma R&D investments in 2017, grown by 22% over the last 5 years (vs +16% the European average), with an ever-increasing synergy between companies and public bodies.
- 4.** € 700 m invested yearly in clinical trials by pharma companies, rising to € 1 bn if we include medical devices companies.
- 5.** 65,400 highly qualified employees (90% with secondary school certification or university degree) with 6,000 new jobs in 2017. A skilled and flexible workforce is considered a crucial factor by foreign companies who have already located in Italy.
- 6.** Top destination for life sciences FDIs in Europe: 60% of pharma companies based in Italy are foreign-owned companies.
- 7.** Vibrant pharma national industry, doubling its export value over the last 10 years.
- 8.** Robust medical devices sector, accounting for over 3,800 companies and hosting the “Mirandola district”, one of the top biomedical clusters in the world.
- 9.** 3 out of 6 advanced therapy medicinal products currently authorized for the EU market are the result of Italian R&D.
- 10.** Therapeutic pipeline of 314 biotech projects, of which 90 in clinical development.
- 11.** World-class R&D in a wide range of areas, including vaccines, oncology, neurological and degenerative diseases, immunology, rare diseases, plasma derivatives, respiratory and cardiovascular diseases.
- 12.** World-renowned National Healthcare System with universal coverage, including a wide range of excellent institutes as potential partners (the overall healthcare sector accounts for 11% GDP).



**COMPANIES**

**INVESTMENT**   
**OPPORTUNITIES** 

# ALTHEIA SCIENCE



## Focus

Investment opportunities



## Area of Activity

Medical research



## Foundation

12/1/2017

## Company size

### Employees

From 3 to 9 employees

### Turnover

Less than 75.000 Euro

## Info

### ■ Headquarter

Via Enrico Besana 7, Milano  
[www.altheiascience.com](http://www.altheiascience.com)

### ■ Key Contact

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 +39 320 06 73 899

## Description

Altheia Science develops a gene therapy-based approach in Type I diabetes and multiple sclerosis that aims at reverting the root cause of the disease, by ex vivo lentiviral vector-transducing autologous hematopoietic stem and progenitor cells (HSPC) to reconstitute PD-L1 expression. Re-inoculation of modified HPSC should entail the establishment of a correct balance in controlling immune responses, by promoting a tolerogenic effect triggering the PD-1/PD-L1 axis with the result to exhaust auto-reactive T lymphocytes effector capabilities, thus preventing auto-immune reactions against self-antigens. The approach has the potential to be transformative in the management of autoimmune diseases.

## Products

- **ImmunoStem for T1D** - Stage of Development: Preclinical
- **ImmunoStem for MS** - Stage of Development: Preclinical

## Technology and Patents

Altheia Science has an exclusive worldwide license from the Children's Medical Center Corporation (CMCC) of 3 patent families for the treatment and prevention of autoimmune diseases and cancer, including PD-L1 expressing hematopoietic stem cells and uses, composition and methods for treating diseases and disorders of the central nervous system (non-exclusive), and the discovery of the miRNAs network controlling PD-L1 expression (unpublished, at US Provisional state).

Patent Office and filing dates:

- PCT/US2016/043053, filing date 20.07.2016, priority data 62/194969 - 21.07.2015 US
- PCT/US2017/056774, filing date 16.10.2017, priority data 62/408664 - 14.10.2016 US
- Unpublished patent, at US Provisional state

## Key opportunities

Preferred Partner: Finance

The capital raise is presently ongoing with a target of €15M.

Subscribed capital: €9.3M.

Altheia Science, exploiting the scientific and management expertise of the company, intends to promote the product development at international level, not only in Italy but also in Europe and in the USA. Product development includes the execution of IND-enabling studies focused on the demonstration of a favorable benefit/risk ratio, on safety and on the design of appropriate clinical development plans. Finance partners in the USA would favor the enablement of this process.

## Other opportunities

Additional opportunities come from the establishment of partnerships with other companies in the field to exchange technologies and foster the execution of Altheia Science programs.

Target Market: The target market includes new cases of Type I Diabetes and patients with Relapsing-Remitting Multiple Sclerosis. Altheia Science is focused on the first clinical demonstration of safety and efficacy of these innovative approaches, including innovative drug products and routes of administration.



# CORION BIOTECH

corion biotech

## Focus

Investment opportunities



## Area of Activity

Pharmaceutics



## Foundation

12/6/2012

## Company size

### Employees

Less than 3 employees

### Turnover

Less than 75.000 Euro

## Info

### ■ Headquarter

Via Gioacchino Quarello 15/A,  
Torino

[www.corionbiotech.com](http://www.corionbiotech.com)

### ■ Key Contact

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CSO

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+39 3886447730

## Description

Corion Biotech was founded in 2012 by A. Rolfo, T. Todros, C. Cavallero, E. Piccoli. CB project originates from over 2 decades of translational research in the fields of human placenta physio-pathology.

Two biological drugs originated from this research:

CB-ChMF-11 demonstrated strong immunomodulant, anti-inflammatory and proangiogenic action on the preeclamptic placental tissue both in vitro and in vivo in a preeclampsia (PE) animal model, leading to the resolution of PE clinical culprits.

CB-ChMF-12 demonstrated strong in-vitro selective anti-angiogenic, pro-inflammatory and profibrotic actions on epithelial cancer cells inducing fibrotization of tumoral tissues and metastasis inhibition.

## Products

- **CB-ChMF-11** - *Stage of Development: regulatory preclinical study, based on EMA scientific advice.*
- **CB-ChMF-12** - *Stage of Development: PoC on recognized animal model.*

## Technology and Patents

Title: "A conditioned medium obtained from placental mesenchymal cells and use of thereof for the therapeutic treatment of Preeclampsia."

Priority: 21/12/2011

Application NO: PCT /IB 2012/057611

Status:

- Granted in EU (28 countries)
- Pending in USA, Japan, Canada

This patent covers preparation and therapeutic application of CB-ChMF-11

Title: Preeclamptic placental mesenchymal stem cell conditioned medium for use in the treatment of a tumour

Priority: 02/10/2012

Application NO: PCT/IB2013/059064

Status:

- Granted EU, USA, Japan
- Pending China, Canada

This patent covers preparation and therapeutic application of CB-ChMF-12

## Key opportunities

Preferred Partner: Finance

Subscribed capital: €600K

Shareholders:

- Alessandro Rolfo 24,75%
- Tullia Todros 24,75%
- Carlo Cavallero 24,75%
- Ettore Piccoli 0,75%
- IP Investimenti & Partecipazioni 25%

Preeclampsia is currently an unresolved medical need with enormous medical and financial impact. Based on epidemiology, this new therapeutic approach could generate a turnover of 3 to 5 billions of euro just in developed markets.

Epithelial tumors are among the most common and frequent neoplasms. The evidence of Cb-ChMF-12 biological activity suggests an application as a pre-surgery treatment.

# ENDOTICS - ERA ENDOSCOPY



## Focus

Investment opportunities



## Area of Activity

Medical devices



## Foundation

12/1/2016

## Company size

### Employees

From 10 to 19 employees

### Turnover

From 250.000 to 750.000 million Euro

## Info

### ■ Headquarter

Cascina via Cava 28, Pisa  
[www.endotics.com](http://www.endotics.com)

### ■ Key Contact

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**Ilaria Baldi**  
 CFO  
[amministrazione@endotics.com](mailto:amministrazione@endotics.com)

## Description

Endotics is in the business of developing, producing and marketing medical devices and primarily the Endotics System, a Self Propelling Robotic Colonoscope. The Company believes that the Endotics System will revolutionize the way physicians carry out endoscopy procedures. The Endotics System allows for a painless, easy, safe procedure for the entire colon (from anus to ceacum). Its innovative technology removes any risk of cross- contamination and perforation during the endoscopy procedure.

The Company seeks to develop medical devices that will revolutionize the way to make diagnosis and biopsy, drugs dosage and surgery thanks to micro robots which travel in the human body.

## Products

The Endotics System comprises a work station and a robotic colonoscope. The work station is a control box through which the physician records the film and drives the robot using a plugged in joystick.

At time being the product is ready for screening market. Currently is commercialized in Italy by one sales rep. Italian distribution channel is under development. International partners are going to deliver distributions business plan proposal.

The robotic colonoscope is an innovative disposable tool which, thanks to its swinging capabilities, allows the physician to explore the entire colon by driving it through the human body. It is not a system of pushed-through technology. The micro robot moves back and forth thanks to a mechanical distinguishing quality covered by three international patents (self propelling technology). The materials used are totally disposable, soft and smooth, removing any risk of Cross Contamination and Perforation while at the same time minimizing the Discomfort to patients. Direct Vision reduces error chances (false positive / false negative), thanks to a camera placed on top of the robot and its steering capability which allows physician to explore the colon very accurately.

## Key opportunities

Preferred Partner: Finance / Distribution & Trade

# EXOSOMICS



## Focus

Investment opportunities



## Area of Activity

Diagnostic IVD



## Foundation

1/1/2012

## Company size

### Employees

From 10 to 19 employees

### Turnover

From 75.000 to 250.000 Euro

## Info

### ■ Headquarter

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35, Siena  
[www.exosomics.it](http://www.exosomics.it)

### ■ Key Contact

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CEO

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## Description

Exosomics develops and commercializes solutions for liquid biopsy. In particular, it has developed and just launched immuno-affinity solutions that can isolate tumour-derived exosomes, from which DNA and RNA can be extracted. These in turn are the substrate of any analytical assay aimed at detecting cancer relevant mutations. The advantage of this solution is that it enriches for tumour-derived material, resulting in better performing analytical assay and therefore earlier cancer detection and ultimately better patient outcomes.

## Products

- **SeleCTEV** - *Stage of Development: launched.*
- **SoRTEV** - *Stage of Development: launched.*
- **ExoRef** - *Stage of Development: Next to launch.*
- **End-to-end line of products** - *Stage of Development: Optimisation / Validation.*

Exosomics technology is based on immuno-affinity reagents to capture tumour-derived exosomes. The portfolio of IP - patents and licenses - covers both the methods to capture tumour-derived exosomes and the biomarkers involved.

## Key opportunities

Preferred Partner: Finance

Exosomics is opening a Round A of investment to support the growth of the company. In particular to expand commercial operations in the US and expand the portfolio of next generation liquid biopsy solutions.

Subscribed capital: €7.5M

## Other opportunities

Partnering with IVD providers.

# GENENTA SCIENCE



## Focus

Investment opportunities



## Area of Activity

Pharmaceutics



## Foundation

7/24/2018

## Company size

### Employees

From 3 to 9 employees

### Turnover

Less than 75.000 Euro

## Info

### ■ Headquarter

Via Olgettina 58, Milano  
www.genenta.com

### ■ Key Contact

**Pierluigi Paracchi**  
Chairman & CEO  
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### **Carlo Russo**

Chief Medical Officer  
carlo.russo@genenta.com

## Description

Genenta develops a lentivirus ex-vivo gene transfer strategy into autologous hematopoietic stem/progenitor cells (HSPCs) to target interferon-expression to tumor-infiltrating monocytes/macrophages (Tie2 Expressing Monocytes - TEMs). As a result, a recruitment of tumor-specific cytotoxic T cells is added to the interferon-effect.

Genenta has been authorized to enter in a Ph I/II clinical trials in early Multiple Myeloma relapsing and newly diagnosed Glioblastoma tumor patients. Enrollment will start in Jan 2018.

## Products

- **TEMferon** - I/O via GT - *Stage of Development: clinical stage (PhI/II).*

## Technology and Patents

Immuno-Gene Therapy for Tumor Treatment

Using a combination of transcriptional and microRNA-mediated control, TEMs become capable to selectively express interferon-limited to the tumormicro environment.

Based on these mechanisms, TEMs are armed with a specific drug and can systematically break the tumor immune-tolerance reprogramming the micro environment and generate an immune response.

In contrast to antigen-restricted Chimeric Antigen Receptor T-cells (CAR-T), TEMferon generates immune responses to any TEMs positive tumors.

## Key opportunities

Preferred Partner: Finance

Genenta raised \$20 Million (Euro 17M) Series A+B Round of financing in March 2015 and September 2017.

Series C Round of Financing, target \$25M.

# GENEXTRA



## Focus

Investment opportunities



## Area of Activity

Life sciences related activities



## Foundation

9/19/2003

## Company size

### Employees

From 3 to 9 employees

## Info

### ■ Headquarter

Via G. de Grassi 11, Milano  
[www.genextra.it](http://www.genextra.it)

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## Description

Genextra is an investment company.

As a holding it provides financial and managerial support to its subsidiaries while they focus on science, guiding their transition from a research driven entity to a self-standing biotech company.

Its mission is to identify innovative research in life science and to develop novel therapies and tools by creating successful business initiatives in a sustained and long term way.

Genextra's holding structure is designed to increase the probability of success of business initiatives that become part of the Group by providing specialist management as well as financial support to a new company vehicle or an existing young start-up.

Genextra was created in 2004 by a group of prominent Italian entrepreneurs and financial institutions in partnership with leading scientists from the European Institute of Oncology (IEO).

To date, Genextra has raised over €116 million and represents one of very few examples in Italy of private capital invested for the benefit of research and innovation.

## Products

Genextra is a flexible organization where subsidiaries can improve the probability of their success leveraging on a virtual management model with centralized skills and resources covering all major necessities of a life sciences start-up:

- Business development and management of IP
- IP management support
- Strategic planning
- Scientific and regulatory services
- Financial planning and human resources management
- Public grant management

## Key opportunities

Preferred Partner: Finance

# ITEL TELECOMUNICAZIONI



## Focus

Investment opportunities



## Area of Activity

Medical devices



## Foundation

6/17/1982

## Company size

### Employees

From 50 to 99 employees

### Turnover

From 5 to 15 million Euro

## Info

### ■ Headquarter

Via Labriola 39 ZI, Ruvo di  
Puglia (BA)  
[www.itelte.it](http://www.itelte.it)

### ■ Key Contact

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**Leonardo Diaferia**  
President

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## Description

ITEL Telecomunicazioni®, also known as ITEL, started its business in the telecommunications sector providing in Italy radio links and electromagnetic shields for the information protection for the Armed Forces, NATO bases, ENEL (National Electricity Company), banks and radio/TV networks. Thanks to the experience and expertise acquired in electromagnetic waves, fields and radiations, ITEL has expanded its market to include the medical, the radiopharmaceutical and the electromagnetic compatibility sectors and it has progressively diversified its business. In 2010 ITEL started the R&D for Proton Therapy division, studying cancer therapy using proton beams.

## Products

- **Erha system** - *Stage of Development: Linac in producing 50MeV, Robotized patient positioning system under development, software for TPS under development.*

## Technology and Patents

ERHA is the innovative Proton Therapy System for cancer treatment developed by ITEL. For its realization, the company has collaborated with national research institutions such as INFN, ENEA, University.

The system consists of three parts: Proton Linear Accelerator (LINAC) for Clinical Use, robotic patient positioning platform and dose delivery system integrated control and treatment planning (TPS) software.

ERHA system is linear, modular and compact, and reaching 230 MeV allows to treat deep tumors.

Patent Office and filing dates:

2010 n° 101694586 - Sistema robotizzato per il posizionamento di un paziente (Robotized patient positioning system)

2014 n° 2283706 - Accelerator pack, specifically for linear acceleration modules.

## Key opportunities

Preferred Partner: Finance

ITEL aims to develop a partnership on a start up related on business development of Erha protontherapy system worldwide and especially in US market.

## Other opportunities

ITEL aims to develop a partnership on a start up related on new radiation technologies related to cancer treatment.

# LIQUIDWEB/BRAINCONTROL



## Focus

Investment opportunities



## Area of Activity

eHealth, mHealth, telemedicine



## Foundation

12/16/2012

## Company size

### Employees

From 3 to 9 employees

### Turnover

From 75.000 to 250.000 Euro

## Info

### ■ Headquarter

Viale Maccari 1, Siena  
[www.braincontrol.com](http://www.braincontrol.com)

### ■ Key Contact

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## Description

Liquidweb is an ICT company focused on Artificial Intelligence applied to human-computer interaction (HCI).

Liquidweb has developed BRAINCONTROL, a platform for HCI based on biofeedback. Its first application was addressed as a breakthrough Augmentative Alternative Communicator controlled by thoughts, for LIS/CLIS patients. BrainControl allows people suffering from pathologies such as Amyotrophic Lateral Sclerosis (ALS), Multiple Sclerosis, tetraplegia and various kinds of muscular dystrophies to overcome severe physical and communicative disabilities.

The company received multiple international awards.

## Products

- **BRAINCONTROL AAC** - *Stage of Development: Ready to market.*
- **BRAINCONTROL IOT** - *Stage of Development: Prototypes, POC.*

## Technology and Patents

The core of the system is a classifier of signal pattern coming from wearable biometric sensors (EEG, inertial, etc.) and/or the environment (2d and 3d camcorders) based on a Machine Learning technology and Artificial Intelligence for the customization of specific needs of each patient.

Patent Office and filing dates:

- IT102015000052009, granted
- PCT/IB2016/055442, national phases

## Key opportunities

Preferred Partner: Finance, Distribution/Trade

Subscribed capital: €3M (€2.5M from Redseed)

Investments for next round financing

Market access to US/Canada

# MICROBIOTECH



## Focus

Investment opportunities



## Area of Activity

Medical devices



## Foundation

12/16/2013

## Company size

### Employees

From 10 to 19 employees

### Turnover

From 750.000 to 2.5 million Euro

## Info

### ■ Headquarter

Via Achille Tamborino snc,  
Maglie (LE)  
[www.microbiotechsrl.com](http://www.microbiotechsrl.com)

### ■ Key Contact

**Ugo Masullo**  
QA and R&D Manager  
[qualita@microbiotechsrl.com](mailto:qualita@microbiotechsrl.com)

## Description

Microbiotech Srl is an innovative start-up founded at the end of 2013 committed in the production and assembly of medical devices (DM) and in vitro diagnostic medical devices (IVD) intended for use in diagnostic medicine, forensics and environmental analysis. Microbiotech Srl efficient manufacturing process and high quality attention allowed us to obtain the ISO 13485:2016 Standard Quality System certification.

## Products

Microbiotech Srl manufactures microbial sampling products for traditional culture analysis and molecular diagnostic assays. Its products include a complete range of devices ready to use, suitable for the transportation and preservation of the clinical microbiological samples. The devices are able in a wide range of type and combinations such as dry swabs, swabs with gel transport media and the most recent swabs with liquid transport media. Devices, where applicable, have CE certification issued by a Notified Body recognized by Accredia (the Italian Accreditation Body) in order to guarantee safety according to the strictest national and international standards. Moreover, all devices are produced according to GMP (Good Manufacturing Practice) and eventually in accordance with CLSI M40-A2 (Quality Control of Microbiology Specimen Transport Devices).

## Technology and Patents

The company has large space reserved exclusively for R&D activities and has qualified personnel able to follow every single stage of new products development, from engineering to performance evaluation. Microbiotech Srl has recently won a very important financing project called Innonetwork in which it collaborates, as lead partner, with major research institutions, such as Universities and the National Research Council (CNR), and other companies for the development of new sampling and transport systems that will be much more performing than those currently on the market. Moreover, with this project the company intends to develop two other transport systems: one user friendly able to detect pesticides and heavy metals from food and another to be used in the laboratory by experienced personnel for manipulations of molecular biology.

Patent Office and filing dates:

Patent n. 1354568 registered in Italy on 30/03/2014, titled "Closing system for transport buffer".

## Key opportunities

Preferred Partner: Finance, R&D

Microbiotech Srl born as an innovative start-up so the Company has in its DNA the research and development of cutting-edge solutions in the biomedical field. Although collaborations with Italian companies and research institutions are already in place, Microbiotech Srl would like to expand its range of collaborations to potential international partners.

## Other opportunities

In addition to R&D collaborations, Microbiotech Srl is interested in financiers and distributors.



# MOLMED



## Focus

Investment opportunities



## Area of Activity

Biotech, pharmaceutical, Cell&Gene research, development and manufacturing



## Foundation

7/11/1996

## Company size

### Employees

From 50 to 200 employees

### Turnover

From 15 to 50 million Euro

## Info

### ■ Headquarter

Via Olgettina 58, Milano  
www.molmed.com

### ■ Key Contact

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**Maria Virginia Tonus**  
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## Description

MolMed S.p.A. is a medical biotechnology company focused on research, development and clinical validation of innovative anticancer and rare diseases therapies.

The Company's original dual business model is based on a growing and diversified proprietary pipeline of products in clinical and preclinical stage with autologous and allogeneic therapies:

Zalmoxis® (TK), a patient specific cell therapy used in haploidentical transplants already authorized for the EU market, CAR-CD44v6, in advanced preclinical stage targeting both liquid and solid tumors, new CAR proprietary pipeline both autologous and allogeneic, the last one based on NK (Natural Killer) cells.

MolMed also provide tailor made services for Cell & Gene therapy project, in terms of development and GMP manufacturing of clinical grade retroviral and lentiviral vectors and genetically modified cells, for its proprietary products as well as for third parties or in partnership in its own GMP 4,800 sqm facilities. MolMed is listed on the main market (MTA) of the Milan stock exchange, since 2008 (MLMD.MI).

## Products

- **Zalmoxis®** - *First patient-specific cell therapy for the treatment of leukemia and other high risk hematologic tumors in. Zalmoxis® (TK) is an ex vivo cell therapy based on donor T cells genetically engineered to enable bone marrow transplants from partially compatible donors, inducing a rapid immune reconstitution. Received Orphan Drug Designation and has already obtained a Conditional Market Authorization by the European Commission as well as reimbursement in Italy and in Germany.*
- **CAR-CD44v6** - *An original immune-gene therapy in advanced preclinical development, potentially effective both for some hematological malignancies and several epithelial tumors.*
- **CAR therapies proprietary pipeline** - *MolMed is one of the few biopharma worldwide having a diversified pipeline in both autologous and allogeneic CARs.*
- **Autologous CAR-T Platform**
  - No GvHD risk
  - Targeting liquid and solid tumors
- **Allogeneic CAR-NK Platform**
  - CAR-NK cells are one of the most innovative pre-clinical investigations in cellular immunotherapy with much less competition compared to autologous
- **CAR-T**
  - NK cells exclude GvHD
  - Wider market potential, off the shelf therapy (1 batch = multiple patients)

## Key opportunities

Preferred Partner: Financial, Biotech, Cell&Gene investor

MolMed GMP Solutions provides tailor-made services for the development and manufacturing of patient specific cell & gene therapies and cellular immunotherapies.

MolMed GMP Solutions offers high level expertise to develop, conduct and validate custom studies, optimize and scale-up manufacturing projects, devising innovative testing procedures and addressing the unique test specifications required for novel therapies.

## Other opportunities

MolMed's in-house GMP facility is authorised by the Italian Pharmaceutical Agency (AIFA) for the production and release of medicinal products, and complies with the requirements of current legislation and best practice guidelines for the manufacturing of patient-specific or genetically modified cells and active pharmaceutical ingredients for clinical use.

# OTECH INDUSTRY



## Focus

Investment opportunities



## Area of Activity

Electromedical and medical equipment (non diag)



## Foundation

1/15/2013

## Company size

### Employees

Less than 3 employees

### Turnover

From 75.000 to 250.000 Euro

## Info

### ■ Headquarter

Via Amendola 1, Alessandria  
[www.otechindustry.it/en](http://www.otechindustry.it/en)

### ■ Key Contact

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**Sisto Ghione**

President  
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## Description

Development of new plasma technology with applications in human and animal surgery and in aesthetic medicine.

## Products

- **ONEMYTIS** - *Stage of Development: Entry in international veterinary market.*
- **ONEYONIS** - *Stage of Development: Certification for human market in progress.*
- **ONEBEAUTY** - *Stage of Development: Design in progress.*

## Technology and Patents

Patented technology ionize air and allows to treat tissues at very low temperature (<50°C, <122°F) with great benefits for patient health.

Patent Office and filing dates:

BR20151128147 - 2014-05-08

WO2017013624(A1)-2017-01-26

## Key opportunities

Preferred Partner: Finance

Subscribed capital: €1.25M

Through finance contribution Otech industry will be able to open international markets and develop its new technology.

# SILK BIOMATERIALS



## Focus

Investment opportunities



## Area of Activity

Biomaterials



## Foundation

7/21/2014

## Company size

### Employees

From 3 to 9 employees

### Turnover

Less than 75.000 Euro

## Info

### ■ Headquarter

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www.silkbiomaterials.com

### ■ Key Contact

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## Description

Silk Biomaterials is a regenerative medicine startup founded in 2014 by four life sciences professionals. It raised a €7M Series A round in early 2016, following the investment of €485k by some business angels in 2015. The proprietary technology platform is based on pure silk fibroin and targets a wide range of clinical needs, from regenerative medicine (vascular grafts, nerve guides, rotator cuff repair, etc.) to drug release applications (bladder cancer).

The first application – nerve repair – has already received IRB approval and patient recruitment will begin at the beginning of 2019.

## Products

SilkBridge is our first device to enter the clinic. It's a biocompatible silk fibroin-based scaffold, which recruits the patients' own cells to remodel or regenerate the nerve, without pre-seeding of the scaffold nor biological/chemical treatments.

SilkBridge consists of a silk fibroin scaffold with a hybrid electrospun-textile structure in which electrospun (ES) layers, in the inner and outer parts of the device, are coupled to the textile (TEX) layer, in the middle. This configuration allows the body's natural healing process to repair the nerve while its tube shape isolates and protects the injured nerves during the healing process.

SilkBridge is intended to repair of peripheral nerve discontinuities where gap closure can be achieved by flexion of the extremity.

## Technology and Patents

The current product portfolio is tilted towards creating positive value for each clinical need, at different time points. The R&D focus is also dedicated to reducing regulatory risks and speeding up the approval process both in Europe and in the US. Silk Biomaterials already engaged with the FDA, through the Pre-Submission program. Long-term preclinical studies are currently ongoing for the vascular graft application and we are ready to confirm in GLP settings the proof of concept already obtained in the orthobiologic area.

## Key opportunities

Preferred Partner: Finance

Silk Biomaterials is targeting a €25-30M Series B round at the end of 2019, to complete the clinical development of the current pipeline and pre-industrialized its manufacturing process in GMP for the main applications (vascular & nerve). By the end of 2021, results from our clinical studies will support market entry of some of our products in the US – via the 510(k) route – and Europe. Current shareholders (the VC fund Principia and business angels) will seek participation in the Series B.



**COMPANIES**

**STRATEGIC**   
**PARTNERSHIPS** 

# A. MENARINI



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

1/1/1886

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

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## Description

The Menarini Group is one of Europe's 15 leading pharmaceutical companies, headquartered in Florence, Italy with Global operations powered by more than 17,000 employees generating a turnover of €3,6 billion in 2017. Its rapid international business expansion with more than 100 affiliates and partners, advocates its global reach.

The focus of the privately-owned company is researching, developing, manufacturing and marketing medications of high therapeutic value for patients. It is committed in these key areas: oncology, anti-infectives, pain, respiratory and cardiovascular.

Menarini's research activities are carried out throughout its 6 fully-integrated R&D centers in Europe and Singapore in addition to 16 manufacturing plants throughout the globe.

## Products

Menarini Silicon Biosystems (MSB), based in Bologna, Italy, and Huntingdon Valley (PA, USA), develops technologies and products that help researchers understand the biological complexity of disease through the study of single cells. The company mission is to develop innovative diagnostic solutions based on single cell analysis through its technology portfolio including the DEPArray NxT, an image-based digital cell-sorting platform, the CELLSEARCH®, the only FDA approved Circulating Tumor Cell (CTC) enumeration System and Ampli1™ single cell genomic amplification and analysis kits. The integration of CELLSEARCH®, DEPArray™ and Ampli1™ provides an end-to-end workflow solution for the enumeration, isolation, and molecular characterization of CTCs from a simple blood test in the clinical research setting, with an aim to improve the effectiveness of precision medicine in metastatic settings. Other areas of application of MSB single cell technology include primary FFPE biopsies in tumors with low cellularity for a more accurate detection of genomic aberrations. Menarini Silicon Biosystems is a wholly owned subsidiary of the Menarini Group.

## Technology and Patents

Menarini Research is in charge of all the Group's Research and Development activities: from the initial phases of a new project up to drug registration.

The biotechnology centre, Menarini Biotech, and the Menarini Research and Development Centre guarantee the continuous development of target therapies and define new innovative approaches to research.

Menarini is investing in major medical research projects that cover the following therapeutic areas:

- Cancer, for solid tumours and blood cancer and for support therapies
- Gastro-intestinal
- Analgesia

## Key opportunities

Preferred Partner: Industry and R&D

Small / mid size companies not present in Europe and Asia, willing to partner their projects.

# ALFASIGMA



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

1/1/1948

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

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### ■ Key Contact

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 Director

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## Description

ALFASIGMA was set-up in 2015 by merging Alfa Wassermann and Sigma-Tau, two international, Italy based pharmaceutical players. Based in Bologna (Italy), with 2,800 employees, ALFASIGMA has 16 subsidiaries all over the world and authorized distributors in more than 70 countries. Through its R&D, manufacturing capabilities and commercial units, Alfasigma markets prescription and OTC drugs and medical foods. R&D laboratories focus mainly on the gastrointestinal area. 2017 ALFASIGMA turnover reached 1.06 Bn euro, 44% of which is made of four internally developed, proprietary molecules one of which - Normix®, Xifaxan® - through ALFASIGMA partners has reached a WW turnover in excess of €1,3 Bn.

## Products

Proprietary molecules developed in-house:

- **Rifaximin** (*Xifaxan, Normix and other brands*)
- **Sulodexide** (*Vessel and other brands*)
- **L-Carnitin** (*Carnitene and other brands*)

Most renowned products:

- **Biochetasi** (*product based on several components with anti-acidic and detoxifying action, helping the restoration of cellular metabolism*).
- **Neo-Borocillina** (*antiseptic and throat disinfectant treatment*).
- **Dicloream** (*line of self-medication products for the treatment of painful and inflammatory conditions of a rheumatic or traumatic nature of joints, muscles, tendons and ligaments*).
- **Yovis** (*self-medication product used for the healing of slight, transient and easily recognizable disorders. It is used in dismicrobial syndromes such as diarrhea, non-specific enteritis and colitis. The medicine is also used in the treatment of intestinal dismicrobism by antibiotics*).

## Key opportunities

Preferred Partner: R&D

# ANGELINI ACRAF



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

12/19/1919

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

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[www.angelinipharma.com](http://www.angelinipharma.com)

### ■ Key Contact

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**Serena Tongiani**  
 Chief Scientific Officer  
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## Description

Angelini is a privately owned international group. Founded in Italy in the early 20th century, it has branches in 20 countries and employs approximately 6,000 people. The pharmaceutical sector is the core business, representing over 50% of the Angelini group, around €1.7 billion 2017 revenue.

Angelini pharmaceutical products are available in over 60 countries through its branches and an extensive network of licensees and strategic agreements with local pharmaceutical companies.

## Products

The company portfolio focuses mainly on pain relief, inflammation, CNS, and has a strong position in the OTC market.

The most well-known international brands are:

- **Trittico** (*trazodone, antidepressant*)
- **Tantum** (*benzydamine, anti-inflammatory*)
- **Aulin** (*nimesulide, analgesic - anti-inflammatory*)
- **Vellofent** (*fentanyl, analgesic*)
- **Xydalba** (*dalbavancin, antibiotic*)
- **Latuda** (*lurasidone hydrochloride, antipsychotic*)

Angelini is active in the field of self-medication with well renowned brands in the Italian market such as Tachipirina, Moment, Tantum Verde, Amuchina.

Angelini Group launched joint ventures with Procter & Gamble in the field of personal care (baby diapers and sanitary napkins) and implementation of integrated production lines for the sanitary products industry.

## Technology and Patents

The topical anti-inflammatory benzydamine and the antidepressant trazodone, are worldwide distributed and commercialized in more than 60 Countries. Angelini in-licensed the fluoroquinolone prulifloxacin in the '90, and carried out its full preclinical and clinical development in Europe, following the registration and commercializing the product in several European countries.

More recently, Angelini strengthened the efforts in the anti-infective area by in-licensing dalbavancin, a semi-synthetic second-generation lipoglycopeptide antibiotic, in use for the treatment of ABSSSI (acute bacterial skin and skin-structure infections). Furthermore, the first ever in Europe combination of paracetamol and ibuprofen just entered the Angelini portfolio.

The R&D department is currently working on several projects in the areas of Pain & Inflammation Disorders and Nervous System Diseases & Disorders. In the latter the Angelini R&D is particularly active in developing drugs and appropriate formulations for the pediatric population. R&D is working in discovery programs, including private-public projects with New Chemical Entities, as well as clinical studies (phase I and II) and in clinical studies for already marketed products fully developed by Angelini.

## Key opportunities

Preferred Partner: R&D

Looking for R&D and BD opportunities in fit with Angelini strategy and core areas.



# BIOTECHWARE



## Focus

Strategic partnerships



## Area of Activity

eHealth, mHealth, telemedicine



## Foundation

2/14/2018

## Company size

### Employees

From 10 to 19 employees

### Turnover

From 250.000 to 750.000 Euro

## Info

### ■ Headquarter

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### ■ Key Contact

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## Description

Biotechware is an emerging company in the Connected Health & Care market. We design and develop hardware and software solutions that can collect and transfer clinical information coming from different sources and addressing several information systems, keeping the information unchanged in the highest security and data quality standards.

## Products

- **CadioPadPro** - *Stage of Development: on the market.*
- **TensioPod** - *Stage of Development: on the market.*

## Technology and Patents

Biotechware is a cloud-based EHR system that represents a sophisticated storage of the patient's clinical data in digital format, which are securely stored and exchanged, and accessible to various authorized users. The Biotechware platform utilizes advanced TLS cryptographic protocols to ensure the greatest safety in the transmission on TCP/IP networks from the source to the addressee, thus preventing any tampering with, falsification and interception of the data.

AES algorithm with 256-bit top secret key for high security and performance levels united to calculation speed.

SCRYPT algorithm as key deriving function based on password for the protection of the hardware attacks.

## Key opportunities

Preferred Partner: R&D

Artificial Intelligence algorithm for application in telemedicine

# BIOTECNOMED



## Focus

Strategic partnerships



## Area of Activity

Life sciences related activities



## Foundation

3/10/2011

## Company size

### Employees

From 3 to 9 employees

### Turnover

From 250.000 to 750.000 Euro

## Info

### ■ Headquarter

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## Description

Biotecnomed is a LLC Consortium managing the Calabrian Cluster of Innovation for Life Sciences. It delivers services to companies in the healthcare, life science and biotech areas: rapid prototyping of new devices, R&D services, IP services, hosting and training services.

## Products

### • CANCER IMMUNOMODULATOR

- Better tumor penetration
- Better clearance (less side-effects)
- Better flexibility for combinatorial therapies
- Low cost of production
- Stage of Development: Experimentation completed. Method validated.

### • BREATHLESS

- BreathLess, screening test of lung injury
- Rapid and accurate detection of pattern of microRNA from all biological fluids
- Assessment of lung damage in subjects exposed to environmental pollutants

## Technology and Patents

1. A MiRNA sequence to be used in screening tests for lung injury with any biological fluid.
2. A new peptide for anti-tumor treatments.

Patent Office and filing dates:

1. Italian Patent Office (UIBM) n.102017000034619 date 29 March 2017, then filed as PCT to WIPO, app.n. PCT/IB2018/052176, date 29 March 2018, pub. n. WO/2018/178917 A1, with ISR and written opinion
2. Italian Patent Office (UIBM) n. 102018000003470, date 13 March 2018

## Key opportunities

Preferred Partner: Industry

We are seeking for industrial partners interested in acquiring (licensing) and industrializing our patented solutions

1. Breathless: exclusive licensee \$1.5M/5 years + 2-3% royalties
2. Peptide: exclusive licensee \$2M/5 years + 2-3% royalties

## Other opportunities

We have other projects available, already prototyped, patented and tested:

- Wearable device (bracelet) for automatic analysis of tremor (discriminate PD from benign tremor)
- Wearable device (earclip) for automatic detection of sleep apnea and other sleep disorders

We are looking for industrial partners interested in acquiring the Intellectual Property and in industrializing the solutions

# CHIESI FARMACEUTICI



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

9/3/1985

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

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### ■ Key Contact

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## Description

Based in Parma, Italy, Chiesi is an international research-focused Healthcare Group, with over 80 years of experience in the pharmaceutical industry, present in 26 countries. Chiesi researches, develops and markets innovative drugs in the respiratory therapeutics, specialist medicine and rare disease areas. Its R&D organisation is headquartered in Parma (Italy), and integrated with 5 other key R&D groups in France, the USA, the UK, and Sweden to advance Chiesi's pre-clinical, clinical and registration programmes. Chiesi employs more than 5,300 people.

## Products

Most renowned products:

- **FOSTER** - Foster is a fixed association of beclometasone dipropionate (corticosteroid) and formoterol fumarate (2 - long-acting agonist with a rapid onset of action) to be taken by inhalation. In 2006, the drug was approved for asthma maintenance therapy.
- **CLENIL** - Active ingredient: Beclometasone Dipropionate
- **CUROSURF® (poractant alfa)** - Intratracheal Suspension. It is indicated for the rescue treatment of Respiratory Distress Syndrome (RDS) in premature infants. CUROSURF reduces mortality and pneumothoraces associated with RDS.

## Technology and Patents

Chiesi's products are chemical and biological drugs, most of which require a medical prescription, and are mainly designed for primary care (General Practitioners), particularly in the respiratory sector where the Group has several leading products, and in special care, notably in neonatology, where the company is a world market leader.

The Group has developed the technological platforms Modulite® (a pressurised metered-dose inhaler) and NEXThaler® (dry powder inhaler) for the administration of respiratory drugs.

Patent Office and filing dates :

More than 3000 entries – details upon request.

## Key opportunities

Preferred Partner: Industry & R&D

## Other opportunities

BD activities

# DOMPÉ FARMACEUTICI



**Dompé**

## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

11/14/1940

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

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### ■ Key Contact

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## Description

Dompé is an Italian bio-pharmaceutical company focused on innovation in the field of personal wellness and R&D. Headquartered in Milan, the industrial and biotech hub, and R&D division are in L'Aquila and Naples (Italy); other branches in the USA and in Europe.

Dompé is focused on development and distribution of ethical and OTC drugs to treat pain, inflammation, and respiratory disorders, as well as rare diseases and orphan drugs. This goal is pursued through R&D programs on high unmet medical needs using a network of over 200 excellence R&D centers. In ophthalmology, Dompé recently launched the first drug based on rhNGF for the treatment of patients suffering from a rare ocular disease.

## Products

Dompé, with its products offered at over 10,000 pharmacies in Italy, is engaged in the development and distribution of ethical drugs and self-medication, adjuvants, medical devices and cosmetics, and in the fields of vitamin and mineral supplements and personal hygiene. The therapeutic areas include cardiovascular, gastrointestinal, paediatrics, neurology, urology, ophthalmic, stomatology and respiratory.

In 2016 Dompé acquired the pharmaceutical division of Bracco, an Italian company, thus further expanding its own product list. Dompé Primary Care operates through two distinct lines: ethical drugs and self-medication.

The close synergy between the two lines allows for an efficient and coordinated supply of information about products to doctors and pharmacists alike, and an efficient distribution system that can satisfy all the needs of any given local area, from those of the hospital distribution channel to the pharmacy one.

Dompé currently markets 50 million medication packages in roughly 40 countries around the world.

## Technology and Patents

The Biotech unit is a manifestation of Dompé commitment to meeting unsatisfied patient needs all around the world.

The company pursues this ambitious goal through its commitment to Research and Development in fields characterised by high therapeutic needs, using an "open innovation" logic that finds Dompé collaborating with 200 international research centres of excellence in the search for therapeutic solutions to health needs that have yet to be resolved.

The Biotech Unit focuses specifically on the rare diseases field, such as ophthalmology, for instance, an area in which the company has developed and marketed the first ophthalmic product based on rhNGF (the molecule discovered by Nobel Prize winner Rita Levi Montalcini) for patients suffering from neurotrophic keratitis.

In accordance with its vocation, Dompé has major partners in the therapeutic innovation field, particularly in biotechnology.

A major shareholder in Philogen, a Swiss-Italian biotech company that specialises in bio-pharmaceutical products for the treatment of cancer, rheumatoid arthritis and some ophthalmic diseases. In 2012 Dompé became the majority shareholder of AAA - Advanced Accelerator Applications - a leader in the field of molecular medicine that focuses on Research & Development and the production of radio-pharmaceuticals for molecular imaging and personalised medicine.

## Key opportunities

Preferred Partner: Distribution/Trade

Licensing opportunities in markets out of EU (Italy, France, Spain and Germany), USA and Canada for Oxervate.

## Other opportunities

Partnering for licensing in and out in the field of rare diseases (late preclinical and clinical stage).

# DOPPEL FARMACEUTICI



## Focus

Strategic partnerships



## Area of Activity

CMO



## Foundation

1/1/1994

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

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Cortemaggiore (PC)  
[www.doppel.it](http://www.doppel.it)

### ■ Key Contact

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**Giorgio Oberrauch**  
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## Description

Doppel is today recognized as one of Europe's leading experts in contract R&D and manufacturing. It has start-of-the-art facilities and highest scientific capabilities to service its international pharmaceutical and nutritional clients.

The company is committed to applying its innovative technologies, deep knowledge and broad experience to develop products of the highest quality for its customers worldwide.

In particular, Doppel provides a specialist consultative service to customers prior to each project in order to determine together the most effective and bespoke solution for the product.

## Products

### • Liquids Large Volume (Glass + PE)

- Solutions
- Suspensions
- Syrups
- Mouthwash
- Vaginal solutions
- Liquids Small Volume
- Drops
- Drinkable vials
- Throat sprays
- Creams, Gel, Ointment
- Suppositories and Ovules
- Soft Gelatine Capsules
- Highly Potent Drugs (tablets)
- Food Products
- Ampoules (SFI)
- Aseptic filling
- Final sterilisation

### • Solid Oral Dosage Forms (blisters)

#### • Plain tablets

- Coated tablets
- Vaginal tablets
- Hard gelatine capsules

#### • Sachets

#### • Liquids Large Volume

#### • Liquids Small Volume (drops)

## Technology and Patents

Doppel manufactures Oral Solids, Creams, Gel, Ointment Suppositories and Ovules, Soft Gelatine Capsules, Ampoules, Vials, Sachets.

## Key opportunities

Preferred Partner: Industry

## Other opportunities

Networking

# EPYGON ITALIE



## Focus

Strategic partnerships



## Area of Activity

Medical devices



## Foundation

3/25/2015

## Company size

### Employees

From 10 to 19 employees

### Turnover

From 75.000 to 250.000 Euro

## Info

### ■ Headquarter

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#### Enrico Pasquino

CTO - Chief Technical Officer

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## Description

Biomedical company developing a trans-catheter biological mitral valve prosthesis and its delivery systems.

## Products

**EPYGON**, the innovative transcatheter mitral bio-prosthesis

Epygon valve is conceived to match the hemodynamic and anatomic features of the native mitral valve.

Indeed, Epygon valve is the first “physiological” transcatheter mitral prosthesis because it can restore the natural blood flow vortex in the left ventricle, thereby fostering recovery of ventricular functions, especially in fragile patients with a seriously impaired cardiac condition.

The key features of Epygon valve are:

- D-shape annular ring
- Monoleaflet
- Asymmetric stent
- Anatomic atraumatic anchoring system

The conceptual design of our transcatheter mitral bioprosthesis allows a unique geometry for an optimal fitting to mitral anatomy and an advanced monoleaflet structure for a physiologic hemodynamics and low risk of LVOT obstruction. The Epygon prosthesis is delivered to the implant site via antegrade (transatrial/ transeptal) or retrograde (transapical) “off-pump” transcatheter access.

## Technology and Patents

Patents related to the design (metal and biological components) of the bio-prosthesis and its related delivery systems.

## Key opportunities

Preferred Partner: R&D

## Other opportunities

Partners interested in financing the R&D activity until the CE mark of the product.

# FLAMMA GROUP



## Focus

Strategic partnerships



## Area of Activity

Chemical & APIs



## Foundation

4/1/1950

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

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**Giampaolo Negrisoni**

CEO

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## Description

A privately held company with over 60 years of experience, Flamma Group has a solid reputation for continuous delivery of high quality pharmaceutical intermediates and APIs to the pharmaceutical market. From gram to tons, from R&D to Regulatory filing, Flamma manufacturing expertise and state of the art quality system helps small and large pharma company to successfully develop a reliable process, transfer, and scale-up APIs and intermediates.

Flamma has two FDA and AIFA approved cGMP manufacturing facilities located in Italy and a cGMP manufacturing facility located in China, 3 R&D centers, and offices in Boston and Paris.

## Products

Flamma produces a wide-ranging list of generic APIs, including products like Melatonin, Minoxidil, Sulindac, and many more. Our Active Ingredients include compounds like Asparagine. Our Intermediates consist of numerous high-value amino acid derivatives including Moc-Valine and Cbz-L-Alanine.

- Acetyl-DL-Leucine
- L-Arginine-L-Aspartate
- Di-Ornithine Ketoglutarate L-Ornithine-a-Ketoglutarate L-Ornithine 2-oxoglutarate
- Hydrochlorothiazide
- Ketoprofen Lysine Salt
- Magnesium-DL-Aspartate
- Melatonin (MelaPure™)
- Methacholine chloride
- Minoxidil
- Modafinil
- Nimesulide micronized
- L-Ornithine-L-Aspartate
- DL-Phosphoserine
- L-Phosphoserine
- L-Phosphothreonine
- Potassium-DL-Aspartate

## Technology and Patents

Flamma is a Technology company with an R&D group of more than 85 scientists dedicated to the discovery and optimization of competitive and sustainable syntheses for the manufacturing of innovative as well as off-patent drugs.

## Key opportunities

Preferred Partner: Industry

Flamma is actively looking to expand its US footprint both on the R&D side and commercial side, as well as through partnership for the development of innovative technologies in the field of synthetic chemistry.

## Other opportunities

Opportunities in the high end nutraceutical or cosmeceutical market.

# IQVIA SOLUTIONS ITALY



## Focus

Strategic partnerships



## Area of Activity

Life sciences related activities



## Foundation

11/6/2017

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

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### ■ Key Contact

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## Description

Quintiles and IMS are now IQVIA.

IQVA is committed to providing solutions that enable healthcare companies to innovate with confidence, maximize opportunities and, ultimately, drive healthcare forward. This happens via breakthroughs in insights, technology, analytics and human intelligence that bring the advances in data science together with the possibilities of human science.

## Products

Solutions and Services:

- Asset Valuation & Due Diligence
- Drug Development Strategy & Analytics
- Clinical Development
- Launch Strategy & Planning
- Commercialization & Lifecycle Management

## Key opportunities

Preferred Partner: Industry

Looking for new contacts with biotech companies, start-ups, willing to enter the Italian market.

Offering full support from molecule to market: asset evaluation, clinical and regulatory support.

## Other opportunities

New contacts with venture capitals in order to create a partnership to enhance the start-ups development.



# ITEM OXYGEN



## Focus

Strategic partnerships



## Area of Activity

Medical facilities furnishings, equipment, goods



## Foundation

11/7/2003

## Company size

### Employees

From 20 to 49 employees

### Turnover

From 2.5 to 5 million Euro

## Info

### ■ Headquarter

Via Le Fogge 11, Altamura (BA)

[www.itemoxygen.com](http://www.itemoxygen.com)

### ■ Key Contact

#### Giovanni Piccininno

Scientific Director of Item Oxygen Research Institute  
[g.piccininno@itemoxygen.com](mailto:g.piccininno@itemoxygen.com)

#### Merystella Magrino

R&D Administration Manager  
[m.magrino@itemoxygen.com](mailto:m.magrino@itemoxygen.com)

## Description

The Item Oxygen S.r.l. is an Italian company operating in the medical field for over twenty years. Its main activity is the design, installation, service and maintenance of plants for the distribution of medical gases. This activity adds to the design and manufacture of medical devices intended for assistance in monitoring some basic parameters for the assistance and care of patients, both in the home, with particular reference home care and sub areas, including through the use of predictive systems.

## Products

- **H@H hospital at home** - Web based system of real-time telemonitoring and therapy for patients at home of the itemoxygen. In addition to monitoring all the physiological parameters of the patient, it also allows the administration of oxygen therapy by means of an oxygen concentrator and endocavitary aspiration. The H@H hospital at home system has been awarded for its highly innovative component. The device won the ADI DESIGN INDEX 2013 and was exhibited at the TRIENNALE DI MILANO.
- **H@H smartmews** - H@H Smartmews is one of the most advanced devices used for the monitoring of vital parameters and for automatic calculation of graveness scores (MEWS; PESI, Shock Index, Sepsis Screening Tool). The automatic evaluation of such scores allows health personnel to recognize the patient's clinical condition early. The system also allows the automatic and interactive implementation of important clinical protocols.
- **H@H-Care** - It is an innovative all-in-one home medical system. H@H e-Care allows simultaneous and remote activation of video consultation and display of the patient's clinical parameters, resulting in a clinical instrument "close to the patient". Users are able to manage and get a history of all the clinical data detected, such as: blood pressure, blood glucose, SpO2, body temperature, etc. At any time of the day and at any place, the doctor can know the values of clinical parameters through an internet connection.

## Technology and Patents

Title: "Apparatus and system for preventing and extinguishing fires, installable on heavy goods industrial vehicles".

Patent Office and filing dates:

EP 3 269 427 A1 - 14/07/2016

## Key opportunities

Preferred Partner: Distribution/trade, R&D, Industry

Item Oxygen S.R.L. combines innovation, technological culture, training and medical-scientific research. The company, to develop and devise the most avant-garde solutions in medical ambulatory, is constantly looking for qualified partners with whom to collaborate.

# KEDRION



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

1/6/2000

## Company size

**Employees**

More than 499 employees

**Turnover**

More than 50 million Euro

## Info

### ■ Headquarter

Loc. ai Conti Snc,  
Castelvecchio Pascoli (LU)  
[www.kedrion.com](http://www.kedrion.com)

### ■ Key Contact

**Federico Moro**  
Public Affairs Manager  
[f.moro@kedrion.com](mailto:f.moro@kedrion.com)  
+39 335 688 10 77

## Description

Kedrion Biopharma is an international company that produces and distributes plasma-derived medicinal specialties for use in treating and preventing serious diseases, disorders and conditions such as Hemophilia, primary immune system deficiencies and Rh sensitization, which can lead to hemolytic disease of the fetus and newborn.

The company acts as a bridge between donors and the people who need treatments, and works on a global scale to expand the patients' access to available treatments

In Italy, Kedrion is a partner of the National Health System, which it concretely supports in the pursuit of self-sufficiency in the supply of plasma-derived products.

## Products

Product portfolio covering multiples areas

- Hematology/hemophilia
- Immunology/neurology
- Critical care
- Medical devices
- Products dedicated to the national self-sufficiency program in Italy

## Key opportunities

Preferred Partner: Distribution/Trade

The company is mainly involved in the United States Market in the so called Hemolytic Disease of the Newborn, a rare condition affecting women Rh-. While the disease is eradicated in US and in main Western countries, it is still a problem Worldwide, Kedrion is looking for partners to develop a common global strategy, in particular Institutions, Industries, NGOs, Grantmakers.

# LABORATORIO FARMACEUTICO C.T.



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

11/14/1946

## Company size

### Employees

From 100 to 499 employees

### Turnover

From 15 to 50 million Euro

## Info

### ■ Headquarter

Via Dante Alighieri 71,  
Sanremo  
[www.labct.it](http://www.labct.it)

### ■ Key Contact

**Roberto Cacciaglia**  
Chief Scientific Officer  
[roberto.cacciaglia@labct.it](mailto:roberto.cacciaglia@labct.it)  
+39 01 845 92 41

**Giuseppe Tessitore**  
Chief Executive Officer  
[tessitore@labct.it](mailto:tessitore@labct.it)  
+39 01 845 92 41

## Description

Manufacture of medicinal products and contract manufacturing activities. Commercialization of proprietary medicinal products. Research activities in the field of addiction. High specialization and expertise in the treatment of Alcohol Use Disorders (AUD). Pioneer in the field of pharmaceutical treatment of alcohol addiction, LABCT offers a unique opportunity to invest in a new molecular entity and second generation compounds.

## Products

Laboratorio Farmaceutico CT Srl has become a flexible and reliable partner in your pharma supply chain for:

- **Injectable antibiotics Cephalosporins**
- **Injectable antibiotics Penicillins**
- **Antibiotics ampoules**
- **Non antibiotics tablets, capsules, suspensions and syrups**
- **Products composed by controlled substances**

## Technology and Patents

Patents on New Molecular Entities (NMEs) and their pharmacological use.

Patents on manufacturing procedure of NMEs.

Patents on new polymorphic forms of selected chemical compounds.

Patent Office and filing dates:

- EPO - August 8, 1997
- US - August 8, 1997
- US - November 13, 2008
- AU - November 13, 2008
- JP and China - November 13, 2008
- EA (Eurasian Pat. Conv.) - November 13, 2008
- EPO - October 29, 2015
- US - June 3, 2016
- CDN - June 3, 2016
- IT - June 1, 2016
- PCT - August 3, 2016

## Key opportunities

Preferred Partner: Industry

LABCT aims at bringing a new chemical entity for treatment of AUD to a phase II clinical stage development, looking then for an out-licensing and/or a potential exit for shareholders that can materialize in an M&A transaction or IPO. LABCT will aim at bring the lead compound at a phase II stage expected at end of 2021 looking then for an exit strategy and or out-licensing event.

## Other opportunities

A new vehicle (NewCo) can be also created including the patent portfolio related to the NME and R&D technology platform and will leverage on the overall expertise and know-how of LABCT team on alcohol abuse treatments and on a highly qualified international advisory board.

# MEDIOLANUM FARMACEUTICI



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

1/1/1972

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

Via S.Giuseppe Cottolengo 15,  
Milano

[www.mediolanum-farma.com](http://www.mediolanum-farma.com)

### ■ Key Contact

Millet Bernard  
International Director

[b.millet@mediolanum-farma.com](mailto:b.millet@mediolanum-farma.com)

## Description

Pharma Company, with products for speciality and primary care, now oriented to international development through partnerships in oncology.

## Products

Mediolanum has granted licences for the following products resulting from its research activities:

- Mesoglycan
- Rufloxacin
- Iron acetyltransferrin
- Dermatan sulphate

These products are sold or have been granted marketing authorization in Italy and other European countries, South America, the Far East and Africa.

## Technology and Patents

The Mediolanum group has always considered the research and development of original and innovative products and/or methods an integral and fundamental part of its business and dedicated a large part of its efforts to these activities.

The results obtained confirm and reward this commitment: 93 new inventions or discoveries have resulted in over 700 patents being filed in more than 40 countries.

Mediolanum completed the development of no fewer than 4 products between 1980 and 1999: Mesoglycan, Iron acetyltransferrin, Rufloxacin and Dermatan sulphate.

An innovative, original subcutaneous controlled-release system for administering various types of medicinal products, structured on ten technological platforms (MeDeSys).

## Key opportunities

Preferred Partner: R&D

## Other opportunities

US Biotech companies.

# PANOXYVIR



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

11/7/2016

## Company size

### Employees

Less than 3 employees

### Turnover

From 75.000 to 250.000 Euro

## Info

### ■ Headquarter

Corso Vinzaglio 16 c/o Studio Jona, Torino  
[www.panoxyvir.com](http://www.panoxyvir.com)

### ■ Key Contact

**David Lembo**  
CEO and CSO  
[david.lembo@panoxyvir.com](mailto:david.lembo@panoxyvir.com)  
+39 3457183549

**Giuseppe Poli**  
President and CEO  
[giuseppe.poli@panoxyvir.com](mailto:giuseppe.poli@panoxyvir.com)  
+39 3405732509

## Description

Panoxyvir opens a new frontier in antiviral research by turning physiological cholesterol metabolites into drugs to fight a broad range of viral infections.

Panoxyvir aims to adopt an innovative approach to antiviral prevention and/or treatment that is targeting the site of infection by a given pathogenic virus rather than the viral particles themselves. Research and development are focused on the wide and remarkable antiviral effects displayed in vitro and ex vivo models by defined cholesterol oxidation products (oxysterols) of physiological origin.

## Products

- **Anti-Rhinovirus Nasal Spray** - *Stage of Development: Preliminary organic synthesis and formulation of the active substance. Its validation in 3D reconstituted human nasal and bronchial epithelia. Pharmacokinetics studies in progress.*

*The inhalation of the active ingredient will be suitably afforded by a medical device allowing to reach the whole nasal mucosa and to reduce to a minimum if any the involvement of the lower respiratory tract.*

## Technology and Patents

Use claims: protection of a class of oxysterols against

RHINOVIRUS and associated pathologies

PAPILLOMAVIRUS and associated pathologies

ROTAVIRUS and associated pathologies

Italian patent: granted 3/10/2016

PCT application: n. IB2015/055000 (July 2, 2015)

PCT national phase extension: Europe, USA, Canada, Australia, Japan

## Key opportunities

Preferred Partner: Industry

A pharmaceutical firm could most likely help Panoxyvir in successfully achieving the non clinical steps still to be obtained up to the entry into human. They could validate or better focus the company's actual positioning and, above all, they could suitably and successfully direct the business development.

Prevention and/or treatment of severe and not rarely lethal exacerbations rhinovirus-induced of chronic respiratory diseases, like cystic fibrosis (CF) and asthma. Actual estimated global market values for CF and asthma are respectively €3.13BLN and €18.2BLN.

## Other Opportunities

Once properly directed, the development of Panoxyvir's business project would much benefit from the involvement of financial investors as well.

# PETRONE GROUP



## Focus

Strategic partnerships



## Area of Activity

Life sciences related activities



## Foundation

11/8/1989

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

Via Artemisia Gentileschi 26,  
Napoli  
[www.petrone.it](http://www.petrone.it)

### ■ Key Contact

**Pierluigi Petrone**  
CEO

[pierluigi@petrone.it](mailto:pierluigi@petrone.it)  
+39 335 493 932

## Description

PETRONE GROUP is a wholly privately-owned family company active worldwide in the pharmaceutical, para-pharmaceutical and health Sector. Experts in logistics and distribution of medicinal products including “restricted” drugs and cold chain products. PETRONE GROUP expertise covers all the drug product lifecycle: from clinical trials, to early access and logistics. Petrone Group acts as a valuable bridge for clinical sponsors, CROs, Pharma and biotech companies willing to reach physicians, hospitals and patients at very critical stages.

## Products

European Hub Services available at any of our locations in Italy, Spain and Ireland:

- Company set up
- Fiscal support
- Financial and Accountancy
- Legal service
- Customs Clearance
- Regulatory Support
- Pharmacovigilance
- Tendering Activity
- Market Access
- Business Development
- Logistic
- Commercial Services

## Key opportunities

Preferred Partner: Distribution/Trade

## Other opportunities

CRO medical device.

# RECORDATI



## Focus



## Area of Activity

Pharmaceutics



## Foundation

5/1/1926

## Company size

### Employees

More than 499 employees

### Turnover

More than 50 million Euro

## Info

### ■ Headquarter

Via Civitali 1, Milano  
www.recordati.it

### ■ Key Contact

**Luigi Longinotti**  
Head Portfolio Management -  
Orphan Drugs

longinotti.l@recordati.it  
+39 344 01 62 577

**Pierpaolo Ferlenga**  
Corporate Licensing Manager  
ferlenga.p@recordati.com

## Description

Recordati is an international pharmaceutical group dedicated to the research, development, manufacturing and marketing of pharmaceuticals for primary and specialty care as well as orphan drugs for the treatment of rare diseases. Headquartered in Milan, Italy, Recordati has operations throughout the whole of Europe, including Russia, Turkey, North Africa, the United States of America, Canada, Mexico, some South American countries, Japan and Australia. Recordati has been listed on the Italian Stock Exchange since 1984.

## Products

Core Products:

- **Zanidip® (lercanidipine)** - *Lercanidipine is a proprietary latest generation calcium channel blocker indicated for the treatment of hypertension. Sales of Zanidip® are expected to remain stable at between € 110 and 120 million going forward.*
- **Zanipress® (lercanidipine + enalapril)** - *Enalapril is an ACE inhibitor indicated for the treatment of hypertension.*
- **Urorec® (silodosin)** - *Highly selective alpha1A receptor antagonist indicated for the treatment of symptoms associated with benign prostatic hyperplasia (BPH). BPH market in 15 main countries approx. € 0.9 billion. Urorec® sales in 2019 expected to exceed € 100 million.*
- **Livazo® (pitavastatin)** - *Highly effective HMG-CoA reductase inhibitor indicated for the treatment of hypercholesterolaemia and also a potent LDL-lowering drug with a consistent and progressive HDL-raising effect (Atherosclerosis Supplements 2010; 11:15-22). Expect sales to continue to grow double digit through 2019. Statins market in the 6 main countries is of around € 0.9 billion.*
- **Seloken®/Seloken® ZOK (metoprolol succinate)** - *Metoprolol succinate is a beta-blocker mainly indicated for the control of a range of conditions including of hypertension, angina pectoris, disturbances of cardiac rhythm, maintenance treatment after myocardial infarction, and functional heart disorders with palpitations.*
- **Logimax® (metoprolol succinate+ felodipine)** - *Logimax® is a fixed combination of metoprolol succinate and felodipine, a calcium channel blocker indicated for the treatment of hypertension.*

## Key opportunities

Preferred Partner: Industry

Recordati looks for licensing or acquisition opportunities for their territories (globally only for Rare Diseases) to strengthen its corporate portfolio.

Opportunities should fall into the following areas:

- Urology
- Cardiovascular
- Gastrointestinal
- Metabolic Diseases
- Orphan and Rare Diseases
- Self-medication
- Central Nervous System
- Preferred opportunities in late stage of development.

## Other opportunities

Selected R&D opportunities at early development stage can be of interest at certain conditions.



# SOFAR



## Focus

Strategic partnerships



## Area of Activity

Pharmaceutics



## Foundation

12/12/1968

## Company size

**Employees**

From 100 to 499 employees

**Turnover**

More than 50 million Euro

## Info

### ■ Headquarter

Via Firenze 40, Trezzano Rosa (MI)

[www.sofarfarm.it](http://www.sofarfarm.it)

### ■ Key Contact

**Andrea Biffi**  
CEO

[andrea.biffi@sofarfarm.it](mailto:andrea.biffi@sofarfarm.it)

**Egle Gedrimaite**  
Business Development  
Director Foreign Markets  
[egle.gedrimaite@sofarfarm.it](mailto:egle.gedrimaite@sofarfarm.it)

## Description

SOFAR S.p.A., Italian pharmaceutical company, based in Milano area, established in 1968 and up to date 100% Italian private capital company. SOFAR's core value and objective is to bring to the market unique, clinically proven products.

SOFAR owns and markets high quality pharmaceuticals, dietary supplements and medical devices, dedicated to gastroenterology, urology, dermatology, gynecology and general healthcare. Whilst Company's main market is Italy, it is exponentially expanding into other markets, exporting its products, both through its subsidiaries (USA, Switzerland, Russia, Romania, Lithuania) as well as through partnerships in Europe, MENA, Asia, Australia.

## Products

- **Pentacol®** - Mesalazine, the leading product in Italian market and in SOFAR gastroenterology products line. Recently launched PENTACOL 1200 mg gastro-resistant modified-release tablets.
- **Enterolactis®** - Probiotic product line based on SOFAR proprietary LP-DG™ strain, number one dietary supplement in Italy.
- **Gerdoff®** - innovative patented medical device for treatment of gastroesophageal reflux disease.
- **Cistiflux®** - Dietary supplement as aid in UTI treatment, market leader in its segment.
- **Innovia™** - Innovative probiotic product recently successfully launched in USA and approaching other worldwide markets.
- **Sofargen®** - A product line for topical use based on Silver-Sulfadiazine. The World Health Organization has included it in the list of the 200 essential medicines.
- **Senhance™** - The first and only digital laparoscopy surgical system, CE marked and FDA approved. Digitizes the interface between the surgeon and patient in laparoscopy to increase control and reduce surgical variability in today's value-based healthcare environment. The Senhance™ Surgical System removes the economic limitations of current robotic systems with fully reusable instruments and an open-platform architecture strategy that enables hospitals to leverage existing technology investments.

## Key opportunities

Preferred Partner: Industry

R&D, Distribution, License







# LIFE SCIENCES CLUSTERS



# Apulia

## Infrastructures and connections

- ✦ 2 international airports (Bari and Brindisi), serving over 40 international destinations
- ✦ 1 industrial cargo airport (Taranto-Grottaglie), recently adopted as a test-bed for remotely piloted aircraft and designated as the first spaceport in Italy for the development of sub-orbital flights
- ✦ 3 major ports: Taranto (container shipping; the 3rd largest commercial port in Italy for cargo traffic); Bari (passenger and container



traffic); Brindisi (passenger traffic)

- ✦ Extensive road and railway networks, linking the region to major north-south corridors and high-speed rail network
- ✦ 1 logistics Interport located in Bari

## Industrial base

Apulia plays a leading role in the pharmaceutical sector in Italy and is one of the main regions for exports, thanks to the presence of multinational companies, including Sanofi e Merck which have located manufacturing plants and research facilities in the region.

The region has also gained recognition as a center of excellence for precision medicine, with the recent creation of the national Hub for precision medicine, TecnoMED, which carries out innovative research for tumors and neurodegenerative diseases, based on nanotechnologies.

Synergy between private and public research institutes aims at advancing research and encouraging the creation of local technological businesses that can industrialize research results and bring patents to markets in areas such as biotechnology drugs, gene therapy, somatic cell therapy, tissue engineering, biomarkers, drug discovery and drug delivery, advanced diagnostics, bioinformatics.

H-BIO - Apulian Biotech Cluster (11 public and 25 private partners) is a key player in this area and brings together the interests and activities of both regional universities and research centers and private companies operating in the fields of healthcare and biotech-drugs, focusing on 4 strategic sectors: Personalized

medicine; Advanced Therapy; Molecular and advanced diagnostics; New manufacturing processes.

## FACTS & FIGURES

**226 companies active in Life Sciences (including Sanofi and Merck), with over 1,650 employees.**

**The regional export of pharmaceuticals and chemicals in 2017 amounted to over 1.6 billion Euros.**

**Main business sector specializations:**

- ✦ Advanced Pharmaceuticals
- ✦ Biomedical Devices
- ✦ Advanced Diagnostics
- ✦ ICT (Bioinformatics - Telemedicine- eHealth)
- ✦ Cosmetics
- ✦ Surgical and Medical Supplies

## Contact info

**PUGLIA SVILUPPO**

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[fdi@pugliasviluppo.eu](mailto:fdi@pugliasviluppo.eu)

+39 080.5498811

**Theresa Mulloy**

**Ewa Jankowska**

## R&D network

3 major Universities (Bari, Foggia, Salento) and 1 Polytechnic University (Bari)

3 specialised Hospital Research Institutes

- ✧ IRCCS Istituto Tumori “Giovanni Paolo II” (specialised in cancer research)
- ✧ IRCCS “Casa Sollievo della Sofferenza” (specialised in genetic diseases)
- ✧ IRCCS “Saverio de Bellis” (specialised in molecular biology and degenerative diseases)

2 National Research Centres

- ✧ National Research Council (CNR), present in Apulia with 6 research institutes, including NANOTEC – Institute of Nanotechnology which hosts TecnoMED
  - ✧ National Institute for Nuclear Physics (INFN)
- CVBF - Biological and Pharmacological Evaluation consortium for research and product testing
- C.A.R.S.O. Consortium for post-doc training in biomolecular and oncological research and treatment

## Incentives and funding

Regional Contract Programmes: regional grants scheme supporting business innovation and investment projects for existing companies or for new companies to be located in the region, with investment budgets falling within the range between 5 million and 100 million Euros.

Integrated Incentives Packages (PIA): regional grants scheme supporting business innovation and investment projects for existing SMEs or new ones to be set-up in the region, with investment budgets falling within the range between 1 million and 40 million Euros.

Tecnonidi: regional grants initiative which supports investments projects for innovative start-ups and SMEs, with a high-technology content aimed at introducing new products, services and/or business solutions, with investment budgets falling within the range between 25,000 and 350,000 Euros.

## Sites and buildings

2 Business Incubators located in Puglia Sviluppo's premises in Modugno (BA), suitable for service industry and digital start-ups and Casarano (LE), suitable for research and manufacturing activities.

H BIO - Apulian Biotech Cluster based in the University of Bari.

## Success story

- ✧ In 2018, Gelesis, a biotechnology company based in Apulia and co-founded by PureTech Health (an advanced, clinical-stage biopharmaceutical company from Boston - USA), developing first-in-class mechanotherapeutics to treat chronic diseases related to the gastrointestinal (GI) pathway, closed an international financing round, raising \$ 30 million of funding. The proceeds from the financing will be used to support commercial-stage manufacturing, product launch preparations, company operations, and clinical advancement of the Company's pipeline of additional product candidates for gastrointestinal disorders, including Type 2 diabetes and non-alcoholic steatohepatitis/non-alcoholic fatty liver disease (NASH/NAFLD). The Company has also submitted Gelesis100 for regulatory approvals in the US and Europe in 2018.
- ✧ In 2017 the French multinational Sanofi, active in pharmaceutical sector decided to invest 6 million euros in the Brindisi plant, for the development of an industrial biotechnology project that aims to develop innovative technologies for the genetic improvement of the microorganisms and of the processes of fermentation extraction and purification of active ingredients.

## Business opportunity

CAREPY DIGITAL START-UP

Equity Investment

Value of investment: between 600,000 and 2,500,000 Euros.

Carepy is a digital start-up which developed and launched an App that simplifies therapy management by connecting pharmacists, treating physicians, patients and family members.

Carepy provides patients with a digital health assistant through a mobile app that:

- ✧ alerts users about taking medication, taking measures, keeping an appointment or going back to a pharmacy
- ✧ establishes a direct channel of communication for patients, their pharmacy and doctor, proactively supporting therapeutic adherence and monitoring the levels of individual drug consumption
- ✧ allows the pharmacist to manage targeted promotion and activities on individuals or groups of patients
- ✧ ensures specialist doctors follow the treatment cycle in real time and improve the compliance of patients during de-hospitalization

Corporate and equity investment: the company is looking for financial partners to finance the development of new chronicity and dehospitalization management platforms to integrate with the current software solution and ramp-up sales and marketing.

# Friuli Venezia Giulia

## Infrastructures and connections

- ✦ Airports: Venice Marco Polo Airport, Treviso A. Canova Airport and Trieste Airport Friuli Venezia Giulia are 30/60 minutes driving from regional main towns
- ✦ Main Highways: E70-A4 Turin-Milan-Trieste, A23 Palmanova-Tarvisio, A28 Portogruaro-Conegliano
- ✦ Railway: Connections from Udine and Trieste railway stations to Milan, Rome, Turin and Venice
- ✦ Maritime connections: Trieste, Monfalcone and Porto Nogaro commercial ports



- ✦ Interports: Cervignano, Pordenone and Trieste
- ✦ Broadband: ERMES, with its 2,600 km of cables, 260,000 km of optical fiber, 1,679 km of backbone infrastructure and 720 km of cable infrastructure in the 86 industrial areas, is the wider broadband geographic area in Italy

## Industrial base

Bio-high-tech in Friuli Venezia Giulia consists of about 150 companies working in Smart Health within three closely related Bio fields: Bio-Med (including Living Environment Technologies), Bio-Tech and Bio-ICT.

Among the big companies, we can mention TBS Group (biomedical hospital devices corporation), Lima Corporate (one of the world leading companies in prosthetics), and Biofarma (working in nutraceutical). Average enterprises include ALIFAX and Insiel Mercato, while small and micro enterprises represent 90% of the whole field.

## FACTS & FIGURES

### SMART HEALTH CLUSTER

Export: 300-315 mln €

Turnover: 900 mln €

Enterprises: 150

Employees: 5,000

Foreign companies: 27

### BIOHIGHTECH INDUSTRY FOCUS

- ✦ Biomedical
- ✦ In vivo and in vitro diagnostics
- ✦ Medical informatics and Bioinformatics
- ✦ Innovative Therapy
- ✦ Ambient Assisted Living

## Contact info

Central Directorate for  
productive activities and  
tourism

[www.regione.fvg.it/rafvfg/cms/RAFVG/economia-imprese](http://www.regione.fvg.it/rafvfg/cms/RAFVG/economia-imprese)  
[www.investinfvg.it](http://www.investinfvg.it)  
[investinfvg@regione.fvg.it](mailto:investinfvg@regione.fvg.it)

040/3772448 - 040/3772423

Antonio Bravo (Central Director)  
Rodolfo Martina  
Michela Masoch



## R&D network

Key players in research and innovation: 150 companies (Bio-med and in-vivo diagnostics 30%, in vitro diagnostics 18%, Medical informatics 20%, Innovative therapies 17%, Ambient assisted living 15%; 3 Universities (Trieste, Udine, Sissa); 2 CNR sites; 5 international research institutes (ICGEB- International Centre for Genetic Engineering and Biotechnology, Elettra Sincrotrone, LNCIB (Biotechnologies University Consortium National Laboratory); Fondazione Italiana Fegato (Italian Foundation for Liver); Callerio Foundation (oncologic diseases); Area Science Park; 2 IRCCS - Sanitary research and care Institutes (Burlo Garofolo in Trieste and CRO in Aviano, Pordenone); 2 academic medical center hospitals (Trieste and Udine, both certified by the Joint Commission International); 4 technology and science hubs. The Burlo Garofolo Pediatric Institute is a children's hospital recognised as the best one in Italy for its research activity and 28th all over the world.

Know-how and specialisation in the following fields: in vivo diagnostics, prosthetics, regenerative medicine, biosensors and advanced microscopy, in vitro diagnostics and bio-pharmaceutics (bio-similar) with particular specialisation in cardiology, neurology, oncology, pediatrics, gynecology, genomics (Next Generation Sequency), nutraceuticals, informatics, including all the IoT (Internet of Things) technologies (telecommunications, big data, informatics safety, cloud infrastructures for health, mobile technologies), all the HPC (High Performance Computing) technologies, hospital and welfare information technology, bio-images and bio-signals IT, telemedicine, remote assistance, smart home automation systems, wearable technologies, decision support systems.

CBM is the cluster organisation of the Smart Health Cluster of Friuli Venezia Giulia with a leading role in building relationships between all the actors in this field - entrepreneurs, researchers, clinicians, policy makers and people involved in finance and education.

CBM is focused on internationalisation activity in order to increase its network with European countries (i.e. Bavaria, Austria, Poland, Balkan regions) and U.S., Cuba, Thailand, Australia and others.

## Incentives and funding

Friuli Venezia Giulia Region has several types of incentives and funding: Regional taxes reduction can be applied to companies which meet specific criteria; public grants can be awarded to support the creation of new enterprises and implement RDI projects. There are also incentives to support competitiveness of SMEs and measures to finance innovation technology investments. Different kinds of regional subsidised loans can be granted to support investments and business development.

## Sites and buildings

Area Science Park - Science and Technology hub

Polo Tecnologico di Pordenone - Science and Technology hub

Consorzio Innova FVG - Science and Technology hub

Friuli Innovazione - Research and Technology Transfer hub

BIC FVG S.r.l. - Enterprises incubator

## Success story

VivaBioCell was founded in 2007 as a spin-off of University of Udine, Italy. The company develops, manufactures and commercializes automated bioreactors to support advanced therapy medicinal product manufacturing for innovative and regenerative medicine therapies like autologous stem cell transplantation. To do that, it has developed "Good Manufacturing Practice - GMP in a box", medical devices enabling safe, efficacious, standardized and affordable medical treatments by creating a next generation tissue engineering manufacturing capability. Current applications include developing stem cell for the treatment of osteoarthritis as well as bone regeneration for dental /maxillofacial reconstruction. This automated "GMP-in-a-Box" system will be used to develop next generation immune cells production in the treatment of cancer through natural killer cells.

In 2015 VivaBioCell was fully acquired by NantCell Inc (based in Culver City, California), a subsidiary of NantWorks LLC group, for about 60 million dollars.



# Lombardy

## Infrastructures and connections

- ✧ 573 km of highways
- ✧ 900 km of national roads
- ✧ 11,000 km of provincial roads
- ✧ 1,680 km of railway network
- ✧ 4 International airports:
  - Milano Malpensa Airport, Varese - Ferno (54.5 km from Milan)
  - International Airport Il Caravaggio, Bergamo - Orio al Serio (60.4 km from Milan)
  - Enrico Forlanini Airport, Milano - Linate (9.7 km from Milan)



## Contact info

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**Marco Fedato**

- International Airport Gabriele D'Annunzio, Brescia - Montichiari (120.5 km from Milan)
- ✧ Distance by car from Milan to Paris (8h50min), Berlin (10h45min), Frankfurt (7h30min), Barcelona (10h)

## Industrial base

The Health industry is strongly oriented to the future needs of society, becoming an important driver to create or recognize new emerging markets

In Lombardy Health Industry contains a very rich and varied system of competences, which includes the following themes:

- ✧ Biotechnologies: pure biotech companies research and development of based products exclusively on biotechnologies
- ✧ Pharmaceuticals: the pharmaceutical industry in Lombardy plays an important role for the well-being and quality of life. A role that combines the high propensity to research and to innovation with a significant manufacturing activity
- ✧ Medical devices: it includes all those medical technologies that make the difference in making a healthcare system at the forefront
- ✧ Food: related to foods with nutritional specificity for rehabilitation, nutraceuticals, etc
- ✧ Creative industries: related to disability, maintenance, and design reacquisition of psycho-physical faculties
- ✧ Constructions for equipped living and working environments and for individual well-being systems

The Pharma sector is the most advanced in terms of technology in Lombardy: companies invested mostly in the Internet of Things, 3d printing, robotics and artificial intelligence

The Biomedical enterprises are focused on biomedical devices for personal use, instrumental use, electro medical use and for early diagnostics

The priority themes of technological development are e-health, new diagnostic systems, drugs and innovative therapeutic policies, prevention, health monitoring, rehabilitation

The excellence of Lombardy Life Sciences Cluster is characterized by scientific and industrial competencies in the:

- ✧ Biotechnology sector applied to the health sector (red biotech)
- ✧ GPET (Genomics, Proteomics and Enabling Technologies) sector
- ✧ Nano biotechnologies
- ✧ Pharmaceutical sector and medical devices, with focus on personalized medicine (early diagnosis, rehabilitation devices and others) and mobile health services (telemedicine, remote health monitoring and interoperability platforms)

The Thematic Working Groups of Lombardy Life Sciences Cluster are: PHARMACEUTICALS (new drugs), MEDICAL DEVICES (for diagnosis and therapies), ICT FOR HEALTH, ADVANCED THERAPY (gene therapy, cell-based products, combined therapies), DIAGNOSTICS (in vivo, in vitro and device diagnostics), and NEUROINFLAMMATION (research of the pathogenetic mechanism related to neuroinflammation in neurological diseases)



## FACTS & FIGURES

- ✧ 1st Italian region in terms of employees in the pharma sector, with more than 30,000 units (47.2% at national level), of whom 2,825 deals with R&D activities
- ✧ 1st region in Italy for European funds obtained in the health sector (4th among European regions)
- ✧ With 28% of businesses and local units based in Lombardy (162 units), 23% of investments and 32% of the turnover, Lombardy is confirmed the first region of Italy for presence, commitment and results in Biotech
- ✧ 816 biomedical enterprises (307 with more than 20 employees) and they employ 40% of the Italian workforce of this sector
- ✧ Presence of Lombardy Life Science Cluster that includes:
  - 82 enterprises
  - 24 Universities and Research bodies
  - 20 Other bodies
  - 6 Associations

## R&D network

- ✧ The R&D investments of Lombard enterprises in this sector accounts for roughly one third of the national total Lombardy counts the highest number of surgeries
- ✧ The research system consists of 6 Faculties of Medicine, 2 Departments of Bioengineering, 28 hospitals with university course premises, 288 Research centers with research activities in the health sector and 186 centers with research lines in non-food biotechnologies
- ✧ Public universities and Research centers involved include LIUC, the Catholic University, Bicocca University of Milan, the University of Milan, Vita Salute S. Raffaele as well as the CNR and the Politecnico of Milan
- ✧ Human Technopole (located at Expo Milano 2015 site), the new Italian research centre that will be an attractive hub for national and international talents at European and global level for biomedical research, genomics and for the future of medical science

## Incentives and funding

Regione Lombardia supplies incentives for corporate investments and Start-ups. For example: «AL VIA» Corporate Investments

- ✧ 5% to 15% non-repayable grant for capital expenditures in productive assets for a specific investment project
- ✧ Long-term financing from €50,000 to €2.85M at favorable rates, with a duration from 3 to 6 years
- ✧ Free financial guarantee to cover up to 70% of

the financing

- ✧ The eligible projects must fall within one of these two categories: Company Development or Relaunch of Productive Areas
- ✧ The intervention is dedicated to companies: registered in the Italian Register of Companies with an operating office in Lombardy at the time of the supply of the contribution, active for at least 24 months

«INTRAPRENDO» Incentives for Startups

- ✧ The incentive consists of a zero-interest-rate loan and a non-repayable grant (min €25,000 to max €65,000)
- ✧ The combination of the two can cover from 60% to 65% of the total eligible cost (min €25,000 max €65,000) of the project
- ✧ The intervention is dedicated to:
  - MSMEs active and registered in the Register of Companies for no longer than 24 months, with operating headquarter in Lombardy
  - Individual entrepreneurs that have started their own entrepreneurial activity for no longer than 24 months

Thanks also to the ERDF - European Regional Development Fund, Regione Lombardia allocated in the 2014 - 2020 program period 36% of the fund (€349.2 M) to strengthen the research sector, foster technological development and innovation. In the same way, 30% of the fund (€294.6 M) is allocated to promote the competitiveness of SMEs and improve access to loans.

## Sites and buildings

- ✧ ATTRACT website [www.attractlombardy.it](http://www.attractlombardy.it) it gives access to more than 100 investment opportunities (greenfield and brownfield opportunities), located in 55 Municipalities, mapped out through the ATTRACT Programme. A variety of sites ranging from the office building to the industrial facility. This initiative, promoted by Regione Lombardia together with Unioncamere Lombardia, is a unique experimentation in Italy for the promotion of the investment opportunities located in Lombardy
- ✧ Within the Lombardy Life Science Cluster: PARCO TECNOLOGICO PADANO (Lodi, LO)
- ✧ Within The Italian Scientific and Technological Parks Network:
  - POLO TECNOLOGICO DI PAVIA (Pavia, PV)
  - COMONEXT (Lomazzo, CO)
  - KILOMETRO ROSSO (Bergamo, BG)
  - BERGAMO SVILUPPO (Bergamo - BG)
- ✧ “MIND” (Milano Innovation District) a world-leading science, technology and innovation park, a business friendly “innovation ecosystem” for domestic and international players, a “catalyst” for sustainable socio-economic growth, a new vibrant community fully integrated with the city centre of Milan. Located just a few miles North-West of the city centre, which hosted the six-month Universal Exposition in 2015.

## Success story

### SANOFI ITALIA

SANOFI is a French global healthcare leader in the world. With more than 100,000 employees present in 100 countries, the company has 79 manufacturing sites in 36 different countries. In 2017, the sales reached € 35bn.

SANOFI is one of the leading pharmaceutical company in Italy, where it has a strong industrial presence. The Italian subsidiary manufactures and markets drugs in all the group's business areas.

SANOFI Italia has its headquarters in Milan and another branch in Modena. In Italy, there are 4 industrial plants of SANOFI. A unit of clinical research (CSU- Clinical Study Unit) with 39 collaborators, dedicated to conduct clinical studies operates at SANOFI site in Milan.

The Lombardy site is an example of positive growth which has been going on for some time, thanks to an investment plan of € 19 M over the last three years enabling to expand the production capacity.

### NOVARTIS FARMA

Novartis is a global healthcare company based in Switzerland working in the pharmaceutical sector. Second pharmaceutical multinational in the world by turnover.

Novartis is present in Lombardy with Alcon Italia SpA in Milan and Novartis Farma SpA or Sandoz SpA in the province of Varese.

Novartis is planning to increase its investments in Italy. The group's investments will be mainly allocate to R&D, collaborating with research centers and hospitals to carry out clinical trials, investing in data collection, training doctors and supply advanced drugs.

In 2017 Novartis already invested € 61 M in Italy to do 224 studies involving 10,000 patients. In Italy the group planned to launch an investment of € 200 M in R&D in three years.

## Business opportunity

### AttrACT Program

The AttrACT Program is a unique innovative program in Italy: it brings together investors, investment opportunities and local Municipalities thanks to a dedicated online platform, [www.attractlombardy.it](http://www.attractlombardy.it).

AttrACT aims at:

- ✧ developing the regional offering
- ✧ promoting opportunities for investment
- ✧ bringing together the main territorial stakeholders

More than 100 "ready to use" investment opportunities, representing all the 12 provinces of Lombardy and pertaining to 4 key segments: Industry, Logistics, Offices and Tourism. The Program has mapped both publicly- and privately-owned areas.

AttrACT sees the direct engagement of the Lombardy Municipalities involved in the Program that are called to identify local investment opportunities (greenfield and brownfield) in their area, made it available to investors, and



simultaneously made commitments to simplify administrative processes, offer economic and tax incentives and offer qualified assistance service.

Commitments can vary according to the Municipality:

- ✧ Simplification of administrative processes such as:
  - Adopting the Action Plan by the city council in less than 90 days from the request
  - Delivering a Planning Permission in less than 60 days from the request
  - Dedicating a portal or an on line “front office” service where investors can find all useful information
- ✧ Economic and Tax incentivisation such as:
  - Declaring in advance all urban planning and construction expenses without additional expenses
  - Offering reduction or exemption of IMU, TASI, e/or TARI according to the Municipality
  - Reducing the primary and secondary land development expenses by at least 20%
- ✧ Promotion:
  - Making available a support team that coordinates the work, facilitates the relationships and encourages collaboration
  - Providing preliminary consulting services and support to companies in the presentation and implementation of their projects, with the issuance of written opinions if requested in the proposal

AttrACT, where to invest in Lombardy.

#### MIND – Milano Innovation District

An innovation, culture and research based identity with international focus

The former Expo site will be transformed into a “Science, Knowledge and Innovation Park”: a hub open to the world, capable of attracting international excellences and promoting Italian technology and culture in an extraordinary location.

A science and technology park with outstanding architectural features, able to attract investment and generate economic benefits throughout the country with scientific, recreational, cultural, sports, residential, productive and tertiary functions.

MIND will become a new part of the city: a smart, sustainable, authentic, inclusive and safe community, able to attract talented people from around the world.

The three majors anchors of the project are:

- ✧ the new cross-disciplinary research infrastructure Human Technopole which will develop personalized approaches in the field of medicine and nutrition on cancer and neurodegenerative diseases using genomics, big data analysis and new diagnostics techniques
- ✧ University of Milan Campus: a modern scientific, education and research campus, aiming to the most advanced international standards for teaching, research and interaction with the private industry
- ✧ Galeazzi research and treatment hospital: gathering together the excellence in the orthopaedic field of IRCCS Galeazzi and the experience gained in the cardio-thoracovascular and bariatric field of the Istituto Clinico Sant’Ambrogio, to offer patients a great multi-specialized research hospital.

attr**ACT**



# Piedmont

## Infrastructures and connections

Piedmont is located at the intersection of the two main axes Lisbon-Kiev European Corridor and Genoa-Rotterdam Corridor 24.

The region is a strategic point for goods distribution in Europe with 3 logistics platforms - S.I.T.O (Turin), C.I.M. (Novara), Interporto Rivalta Scrivia (Tortona) - and a network of about 1,000 km of motorways and 2,000 km of railways. Its position bordering Liguria makes it the ideal rear logistics service location for the port of Genoa (150 km from Turin).



## Contact info

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**Federico Zardi**

Turin international airport :30 minutes from the city center.

Milan-Malpensa intercontinental airport: 1 h from Turin.

## Industrial base

In Italy, Life Sciences - specifically biotechnology, pharmaceuticals and medical devices - represent one of the most promising hi-tech industrial sector with a significant growth potential in the medium to long term. In Piedmont, the network of research centres, multinational companies and SMEs, is a cluster of innovation, education and technology transfer and is the core of a strong, interlinked system active in pharmaceuticals, biotechnology, wellness and health massively supported by converging technologies.

In particular, within the biotechnology field, the technological vocation of Piedmont's R&D is in areas such as cell and molecular technologies, molecular diagnostics and molecular and traditional imaging. The strong skills existing in Piedmont in sectors such as ICT, electronics and nanotechnologies (that are considered converging technologies) have favoured the development of significant results and expertise in bioinformatics, diagnostics, data sciences and biomedical equipment, micro and nanotechnologies, strongly fostering the innovation ecosystem in interdisciplinary fields.

Among Piedmont's leading key players: Advanced Accelerator Applications Srl (Aaa), Ephoran, Huvepharma, Ab Sciex, Agilent Technologies, Bracco Imaging, Merck Serono, Sicor (Teva), Diasorin, Delpharm, Ucb Pharma, Sorin Biomedical, Olon, L'Oreal.

## FACTS & FIGURES

### LIFE SCIENCES CLUSTER

More than 400 companies operating in the life sciences field

Over 250 companies specifically in the healthcare and medtech supply chain

2nd Italian region with 57 companies in the biotechnology field

About 10k employees in 21 multinationals

21 multinationals in the life sciences field

3 Public Universities

1 Science & technology park dedicated to biotechnology: Bioindustry Park Silvano Fumero

1 Innovation Hub for biotechnology: bioPmed

820 research groups of which 60% in healthcare and medtech fields scientific production

### Privileged position:

Piedmont is at the centre of one of the most dynamic biotech areas in Europe. Its proximity to other highly developed European regions, such as Lombardy in Italy, Rhône Alpes in France and Geneva-Lausanne in Switzerland is yet another plus for widespread, synergic and shared development in the life sciences and health sectors.



## R&D network

Recent data confirm that Piedmont is a leading Italian region in R&D. Companies expenditure in R&D: 1.42% of GDP (national average of 0.65%), with a number of workers in R&D of 6.2 per 1,000 inhabitants (national average of 4.0) and an increasing IP impact, with a number of 137.6 patents registered per million inhabitants (national average of 83.6) (Source: Istat 2017).

- ✧ 200 private and public R&D centres, 7 Innovation Hubs, 4 Science & Technology Parks
- ✧ 1st Italian region in terms of private investment in R&D
- ✧ 3rd Italian region for hi-tech patents

## Incentives and funding

Regione Piemonte has allocated € 1 bn to promote the growth and competitiveness of the whole territory. The Region's industrial policy aims to achieve 3 main objectives: to maintain and enhance the existing industrial activities, to expand investments of the companies already active on the territory, to attract new businesses wanting to realise innovation and industrial development projects.

Funding is provided for: setting up and strengthening labs and research centres; creating and developing start-ups; technology transfer from research to SMEs through Innovation Hubs; collaborative research on major challenges through Technological Platforms: Intelligent Factory, Life Sciences, Bioeconomics, Aerospace, Automotive; supporting industrialisation of research results (IR2 Call), through relevant investment programs aimed at industrializing the results of R&D activities already partially acquired.

The subsidy system in Piedmont focuses on both the start-up of new initiatives and on the development of existing companies. Subsidies to companies can take the form of soft loans, non-repayable grants or free-of-charge guarantee support (in compliance with the European regulation on state aid) and can vary according to the type of beneficiary, the kind of investment and the nature of expenses.

## Sites and buildings

Innovation hub – BIOPMED is the Innovation Hub for Biotechnology dedicated to healthcare related products and services. It was established in 2009 by Regione Piemonte and has since grown into a community of about 400 members including companies, research centres, universities and foundations.

25 m€ of regional co-funding collected; over 100 training events organized; over 20 strategic agreements for international cooperation; 16 European projects activated; 60 R&D projects completed; 3 major international B2B events organized: EuroMedTech, BioEurope and Meet in Italy for Life Science.

Piemonte Health & Wellness: is a special project promoted by the Regione Piemonte, financed by ERDF – European Regional Development Fund and managed by the Piemonte Agency.

The project provides international players with a preferential channel to meet and develop business with over 100 top class selected local companies, active in the medical, wellness and cosmetics sectors. Assistance is given free of charge: from the identification of international players' outsourcing needs to the arrangement of B2B meetings with the most suitable partners and visits to local companies.

The project Team's assistance is supply chain focused and completely free of charge.

For more information: [lifesciences@centroestero.org](mailto:lifesciences@centroestero.org),

[www.centroestero.org/en/key-sectors/scienze-della-vita.html](http://www.centroestero.org/en/key-sectors/scienze-della-vita.html)

## Business opportunity

The new Teaching and Research Hospital is a project of strategic international relevance for the life sciences and health sectors that will further cast Piedmont on the global community scene.

The project foresees high quality care and teaching integrated with the healthcare system. There will be 4 functional centres, all closely interconnected and served by private parking, underground and a multi-store car park:

1. Healthcare and Clinical Training Centre: an area of 127,000 m<sup>2</sup>, of which 5,000 m<sup>2</sup> are dedicated to clinical training, and a total capacity of 1,040 beds
2. Research centre: an area of 10,000 m<sup>2</sup> designed for about 1,000 people and shared by teachers, assistants, doctoral students and auxiliary staff
3. Teaching centre: an area of 31,000 m<sup>2</sup> designated for one-cycle master degree programs, three-year degree courses and specialist degree courses in medicine or health professions for a total of 5,000 students
4. Residential centre: an area of 8,000 m<sup>2</sup> offering short-term accommodation for temporary guests working or involved in activities in one of the centres (190 places) and for the discharged patients that still need temporary low-intensity care (30 places)

# Trentino

## Infrastructures and connections

- ✦ Airports: 45 minutes from Verona airport (Catullo)
- ✦ Main Highway: A22 Brennero-Modena
- ✦ Railway that connects North East of Italy with Austria and Germany
- ✦ Brenner Basistunnel in construction
- ✦ Interporto of Trento
- ✦ Broadband with more than 1,100 km of optical fiber
- ✦ Proximity to key European countries (Switzerland, Germany, Austria)



## Contact info

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- ✦ Within 2-3 hours flight from major European cities

## Industrial base

Industrial Know-how:

Medical devices, pharmaceutical and food supplements, diagnostic applications, biomedical engineering, biomolecular and microbiological investigation.

Main companies:

ePharma, Novartis-Sandoz, Biomat, Biodermol, Eurocoating, Novagenit, Corehab, OPT SurgiSystems, Bio4Dreams, GPI, Imagina Biotech, Microbion, Wondergene.

## R&D network

Research Centers: Bruno Kessler Foundation (ICT, microsystems, smart materials), Edmund Mach Foundation (agrifood, genomics, environment), Trento University.

Trentino Salute 4.0 is the first Competence Center in Italy focused on digital healthcare between the Healthcare Institution, FBK and the Autonomous Province of Trento.

Labs: LaBSSAH - Laboratory of Biomolecular Sequence and Structure Analysis for Health, CIBIO - Centre for Integrative Biology, Neuroinformatics Lab, Ausilia - Assisted Unit for Simulating Independent Living Activities, CimeC - Center for Computational and System Biology, Proton Therapy Center.

Know-how:

- ✦ Personalized medicine and eHealth devices
- ✦ Genetics and biomarkers
- ✦ Brain and neuronal
- ✦ Rehabilitation and accessibility
- ✦ Computational models

## FACTS & FIGURES

### HEALTHCARE CLUSTER

- ✦ Export: 106 million euros
- ✦ 40 companies
- ✦ 5th Region for turnover generated
- ✦ 20 million € invested in R&D by the Public Sector
- ✦ 1.5 million € for R&D on digital Healthcare

**400 researchers, 200 employees**

### Foreign companies:

- ✦ Novartis-Sandoz
- ✦ OPT SurgiSystems

### Specialization areas:

- ✦ eHealth
- ✦ Medical devices
- ✦ Rehabilitation
- ✦ Biology

## Incentives and funding

- ✧ Up to 80% local grant on R&D project
- ✧ Up to 70% local grant on internationalization
- ✧ Up to 60% local grant for researchers hiring
- ✧ Up to 50% local grant on innovation
- ✧ Private – Public equity financing up to 1.5 million €

## Sites and buildings

B.I.C. Trentino Sviluppo: 6 Business Innovation Centres in the province of Trento.

Dedicated spaces for biotech industries at CIBIO and FBK.

Formulas: pre-incubation (Start Ups), incubation (SME), accelerator programs (BIO4 Dream).

## Success story

Eurocoating was founded in 1990 by the company Centro Sviluppo Materiali to follow up on the research of new materials undertaken at the Pergine Valsugana site. In 1998 it was acquired by Biocoating, active in the biomedical field, and began the production of coatings and surface treatments on third party medical devices. Coatings are mainly applied to orthopedic prostheses and dental implants, using plasma spray technologies (APS and VPS), both in titanium and in hydroxyapatite.

Established in the Pergine Valsugana Business Innovation Center since 2006, and specialized in the 3D printing technology (additive manufacturing) of titanium metal components, Eurocoating started the research activity in this sector well in advance of the current explosion of the market. Thanks to the advantage gained, the company is now industry leader and it is considered one of the biggest multinational companies globally, to support the largest production of innovative prosthetics that has ever been realized with this technology.

Eurocoating has requested and obtained new additional spaces to support the current business development phase and to continue the research activities necessary to maintain the competitive advantage gained. It will therefore have 1,340 square meters available, compared to the current 560 square meters. In 2015, Eurocoating's turnover amounted to 21 million euros and at the end of 2017 raised up to 25 million euros. Thanks to the agreement signed with Trentino Sviluppo for the expansion in the Pergine BIC, the company will increase from the current 127 employees to 150 workers, guaranteed until 2019.

## Business opportunity

- ✧ Trentino Sviluppo, in-house company of the local Government, has 6 BIC (Business Innovation Centre)
- ✧ We provide: fully equipped spaces and infrastructures, support on technology transfer, technology partnership, supply chain development, HR selection, incentive selection
- ✧ Significant local incentives, efficient and reliable autonomous government, 1st in Italy for quality of life, supportive R&D environment, 0 local tax (for 5 years), a workforce you can count on
- ✧ Provide Equity through Trentino Invest, the Trentino public/private investment company

# Tuscany

## Infrastructures and connections

- ✧ 2 integrated international airports (Florence and Pisa), serving over 50 international destinations
- ✧ 1:30h from Florence to Rome by high-speed train
- ✧ 1:40h from Florence to Milan by high-speed train

Tuscany is crossed by:

- ✧ the major Italian highway (A1) connecting Milan with Rome and Naples
- ✧ the EU "Scandinavian-Mediterranean Core Network Corridor" linking the Baltic Sea



## Contact info

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- with Southern Italy and Malta
- ✧ 1 main commercial port (Livorno) with direct links to the 10 major Mediterranean ports
- ✧ 3 main logistic parks (Livorno, Prato and Arezzo)

## Industrial base

Leading region in R&D: Tuscany is one of the world leading regions in terms of research in vaccines, oncology, cardiovascular, neurology, biorobotics & biomaterials (one of the most recent vaccines, anti-meningococcus B has been developed in Tuscany - Novartis - GSK)

First class public health system with high expertise in all the fields of medicine, operating with cutting edge procedures for clinical trials

Synergy between public and private research thanks to a well developed technology transfer model all around Tuscany:

- ✧ 4 business incubators for life sciences based companies
- ✧ Tuscany Life Sciences Cluster (that counts more than 300 affiliated companies, 19,000 employees, 823 patents)

Many international companies have set up their headquarters for Italy and Southern Europe in Tuscany (Eli Lilly, Kedrion... ) and many international companies have set up in Tuscany local units for manufacturing products, organizing clinical studies with domestic partner (Biomérieux, Novartis - GSK)

## FACTS & FIGURES

**370 firms in Life Sciences**  
 (42 pharma, 80 biotech, 120 medical devices and 128 software&services)

**Turnover: EUR 8 billion**

**7.5% Regional GDP**

**19,000 employees (= 1.2% of total Tuscany's employees)**

**2,000 employees in R&D activities**

**1.45 bln € export (=18% of LS Turnover)**

**3 Universities involved in LS R&D, with a total of 19,000 students in scientific fields**

**Main Research areas in LifeScience in Tuscany**

1. Pharma (Advanced Therapy - Antibodies - Blood Factors - Growth Factors - Cytokines - Drug Development - Immunotherapies - Pharma production - Antitumor compounds - Development of anti-parasitic and antiviral agents - Orphan diseases)
2. Software (Bioinformatics - Communication systems - eHealth - Telemedicine - Telematics - Telemetry - Image Analysis - IT infrastructures - Mobile App)
3. Biotechnology (Genomic search for new diagnostics - Protein atom depth analysis)



## R&D network

3 major Universities (Florence, Siena and Pisa)

2 Superior Graduate School (SSSA - Scuola Superiore Sant'Anna, SSNP – Scuola Normale di Pisa)

Advanced Institutes (IMT - Institute for Advanced Studies of Lucca, SUM – Italian Institute of Human Sciences, in Florence)

3 National Research Centres

- ✧ National Institute for Nuclear Physics (INFN)
- ✧ National Institute for Astrophysics (INAF)
- ✧ National Research Center (CNR), present in Tuscany with 19 Institutes of Research

## Incentives and funding

For detailed information please visit [www.investintuscany.com/incentives](http://www.investintuscany.com/incentives)

## Sites and buildings

- ✧ 4 business incubators for life sciences based companies
- ✧ Tuscany Life Sciences Cluster (that counts more than 300 affiliated companies, 19,000 employees, 823 patents)

## Success story

1. In 2018 Yf Capital, a Chinese private equity fund co-founded by Jack Ma, acquired 100% of the ESAOTE group, a leader in the biomedical sector present in Florence with a plant that employs 220 workers
2. In 2018 the Swiss multinational Lonza, active in the biopharmaceutical sector, has decided to invest in the Sienese startup Exosomics, which develops non-invasive liquid tests for the screening and diagnosis of cancers in the initial phase
3. In 2017 The Swiss pharmaceutical group Skan has invested 6 million euros in the Sienese startup Pharma Integration, which specializes in the development of fully robotic systems and production lines for filling syringes and bottles for vaccines and oncological products

## Business opportunity

PHARMA AND MED TECH LOGISTIC AND DIGITAL HUB

Greenfield Project

Investors: Financial or Industrial operating in pharma sector

Proposing Companies: 4 Pharma companies already operating in Tuscany

Description: the possibility of investing in a digital

logistical platform to support the industries operating in the life sciences sector, which will make it possible to optimise the distribution chain of medicines produced in Tuscany, and more generally in central Italy. The investment is aimed at equipping an area of 125,000 square meters, half of which will be built, to build 21,000 square meters of warehouses, with temperature-controlled environments, suitable for the storage of pharmaceutical products, with 8 loading areas and as many intended for the shipment of goods, as well as about 6,000 square meters of offices.

It is a platform designed to have high expansion capacity, to serve any other interested companies in the many areas of life sciences, as new warehouses can be built for an additional 20,000 square meters of floor space.

The storage capacity, from a pre-feasibility analysis, is estimated at 38,000 initial pallet places, three quarters of which can hold temperatures between 15° and 25° and one quarter between 2° and 8°.

70% of stocks will be for raw materials and packaging, 30% for finished products, which will be handled at a rate of 52,000 pallets per year. 80% are destined for export and 20% for the domestic market.

M&A IN COMPANY OPERATING IN MEDICAL IMAGING AND ULTRASOUND TECHNOLOGIES  
Brownfield Project

Investors: Financial or Industrial operating in pharma/medical device sector

Value of total Investment: to be defined

Proposing Companies: Local firm searching for strategic partnership

Core business: the company, born as a Spin-Off company of the Italian National Research Council and University of Pisa, is specialized in Medical Imaging and Innovative Ultrasound Technologies. The company produces its Cardiovascular Suite, a CE marked medical device software for assessing early markers of cardiovascular risk. The company aims to design a next generation of biomedical ultrasound systems.

Assets:

Commercial distribution on the global market based on 14 distributors and 8 agents monitoring the system and focused on medical devices sales.

Synergies and collaborations with the Italian National Research Council CNR, the University of Pisa and several research institutes at global level.

Strong scientific references on the products usage validating the system.

The Cardiovascular Suite is CE marked and the company got the ISO 9001:2008 certification.

High market's recognition and high investments budget ratio.



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