

bio:nano insider



Published by
the Italian Trade Commission of Los Angeles
www.Italtrade.com

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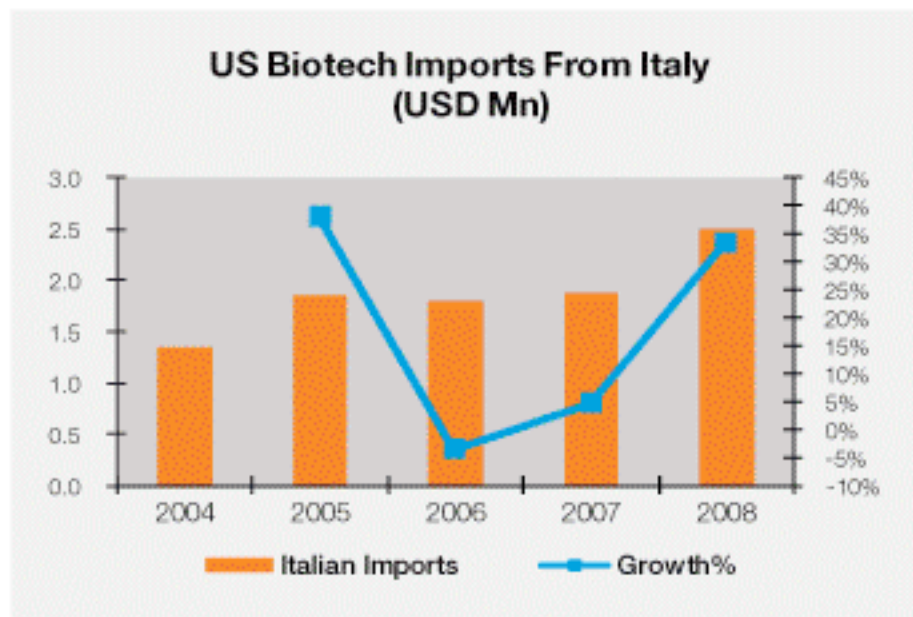
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News and Commentary About Italy's Biotech and Nanotech Industries

BIO 2009 Preview: Italy's Biotech Sector Endures Despite Global Recession

Undeterred by the current economic crisis, Italy's best and most creative biotechnology firms and research institutions once again have big plans in store for the annual BIO International Convention, which will take place in Atlanta May 18-21.

As in past years, dozens of leading-edge companies will exhibit in the modern Italian Pavilion to unveil innovations, collaborations and investment opportunities... all possessing a uniquely Italian sense of originality and style. Italy's biotech sector continues to grow rapidly despite the troubling global economy.



Study for the Italian Trade Commission, New York by Cedar-Technomic

This growth is due to many factors, including an established critical mass of labor, knowledge, infrastructure and investment, as well as a substantial commitment by Italy's leaders to make biotech industry growth a national priority. Government at all levels continues to implement new policies and reforms, from

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It's Time to Celebrate... Italy's Life Sciences Industry Marks Two Important Milestones

As Italy's biotech sector prepares to impress before an international audience at BIO 2009, it is also gearing up to celebrate two important life sciences milestones.

The first milestone is the **50th anniversary** of one of the great discoveries in the fight against infectious diseases. It was in 1959 that **Dr. Piero Sensi** and

his colleagues at Gruppo Lepetit S.p.A. in Milan discovered *Rifomycin* – a group of powerful antibiotics still used today as primary therapy to treat tuberculosis, leprosy and MAC (mycobacterium avium complex) infections. The Rifomycin group includes the derivatives such as Rifampicin, which Piero Sensi created almost 10 years later as the single most effective treatment against TB still in use today. According to the World Health Organization, tuberculosis kills nearly 2 million people and infects 9 million every year and it is considered one of the most important world health emergencies.

The second milestone is the **100th birthday** of Italian neurologist **Rita Levi Montalcini**, who received the **1986 Nobel Prize in Medicine** along with her colleague Stanley Cohen for their discovery of nerve growth factor (NGF). When they are secreted, NGF protein molecules induce the differentiation and survival of particular target neurons or nerve cells. They are found in high levels among people who have recently fallen in love. They are also linked to Alzheimer's and Parkinson's diseases, cancer and birth defects.

Dr. Levi-Montalcini's long and distinguished career began in 1930 at the University of Turin Medical School. After graduating, she worked under the direction of Prof. Giuseppe Levi until her career was temporarily cut short by Mussolini's 1938 Manifesto of Race and the introduction of laws barring Jews from academic and professional careers.

She spent three decades at Washington University in St. Louis, where she became a full professor and established a research unit in Rome. She also spent nearly 20 years at Italy's famed CNR (National Research Council), where she directed



Rita Levi Montalcini

Consortium Extends Italy's Dominance in Antibiotic Research



NAICONS Laboratory in Milan

Italy's well-earned reputation for innovation in the field of antibiotics research has gained a substantial boost with the establishment of NAICONS (New Anti Infectives CONSortium). Based in Milan, the public-private partnership is dedicated to the discovery of new anti-infective compounds to address unmet medical needs and the growing threat of multi-drug resistant infections. Partners in the consortium include the Renato Dulbecco Foundation, Associazione CISI and leading-edge pharmaceutical companies NeED Pharma and KtedoGen.

For more information: Dr. Daniela Jabes, djabes@naicons.com

Italian Researchers Expand Arsenal in Fight Against TB

An all female team of researchers at the University of Pavia near Milan, is helping develop a new class of drugs called benzothiazin (BTZ) to fight tuberculosis. One drug in particular – known as BTZ043 – has demonstrated effectiveness in treating even otherwise drug-resistant forms of the disease. This discovery, led by Prof. Giovanna Riccardi, was published in the journal *Science* on the eve of TB World Day on March 24th.

For more information: Prof. Giovanna Riccardi, riccardi@ipvgen.inpv.it

the Research Center for Neurobiology and the Laboratory of Cellular Biology. In 2001, she founded the Rome-based European Brain Research Institute (EBRI) and was named a Senator for Life by the Italian Republic. Her foundation so far has awarded nearly 7,000 scholarships to young African women.

She is still very active in research and in politics, enjoying great esteem in Italy and abroad. As a Senator, she defended the teaching of evolution in schools when, in 2004, the then education minister, wanted to remove it from school curricula. Dr. Levi-Montalcini is the oldest living Nobel laureate, and the first ever to reach 100!

Message from Paola Bellusci Trade Commissioner

How can we take our readers close to Italy's latest technological accomplishments and opportunities? That is the question we ask ourselves when we plan a new issue of our newsletter and, each time, the possibilities are many, because so much happens in Italian biotech and nanotech business and research from one quarter to the next.

In this special BIO 2009 issue of the *Bio-Nano Insider*, we look at how Italy's biotech sector is faring in the midst of the current economic downturn. We also celebrate anniversaries for two important milestones in the development of Italy's life sciences industry. We then bring you up-to-speed on the latest news involving biotech investment, collaboration and scientific innovation, and wrap-up the issue with a list of BIO 2009 Italian Pavilion exhibitors and events.

As it has in years past, the Italian Trade Commission besides having the **Pavilion at BIO 2009** in Atlanta (May 18-21) will host a networking event at the **W Atlanta Midtown** to showcase Italy's world-class biotech innovations.

We hope to see you in Atlanta!

Paola Bellusci
Trade Commissioner



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more favorable intellectual property laws to tax relief and incentives to promote R&D and new start-ups.

The latest industry report from Blossom & Company and Assobiotech titled "Biotechnology in Italy 2009. The Financial Perspective", shows the number of Italian biotech companies has more than tripled in the past five years (from 83 to 260). Overall revenues for Italian biotech firms in 2008 exceeded \$20 billion, which represents an 18% year-over-year increase. The sector employs roughly 41,000, more than 20 percent of whom are engaged directly in R&D activities.

In terms of trade with the US, biotech imports from Italy have been on the rise growing at 17% on average between 2004 and 2008 to reach \$2.5 billion.

Most of the companies in Italy's biotech sector are focused on applications in healthcare, with special emphasis in oncology, immunology, cardiology and infectious diseases. These firms have

more than 250 products in development, including 55 in Phase III clinical trial.

Such companies are eager and well-positioned to pursue collaboration opportunities with their counterparts in the US, and the timing could not be better.

While Italian firms have abundant scientific know-how, many could benefit from US-style business development practices to bridge the gap between research and commercial applications. US experts in life science tech transfer and early-stage funding are finding that Italy can be a very welcoming home away from home.

To further highlight opportunities for US companies interested in connecting with Italy's biotech, this year, at the Italian Trade Commission's networking event "Connecting with Italian Biotech: New Policies, New Opportunities", Giuseppe Martini, Director of the Life Sciences Department at the Italian National Research Council (CNR) will outline a wide range of Italy-USA successful research collaborations (see page 4).

Innovation Briefs

Mount Vesuvius' Sulphurous Steam May Treat Dysfunction

Italian researchers have reported that the compound responsible for the stench of rotten eggs may help create a new class of drugs to treat erectile dysfunction. Prof. Giuseppe Cirino and his colleagues at the University of Naples Federico II have found enzymes that produce hydrogen sulphide (H₂S) in human penile tissue, and that injecting the compound directly into such tissue can cause blood vessels to relax and

produce an erection. Similar research on another gas – nitric oxide (NO) led to the creation of Viagra. About one-third of men with erectile dysfunction do not respond to currently available drugs. The results of Prof. Cirino's study were published in the journal *Proceedings of the National Academy of Sciences*.

For more information: Prof. Giuseppe Cirino, cirino@unina.it



Mount Vesuvius

Italian and US Researchers Pioneer Epigenetic Profiling

A team of US and Italian researchers has developed a new epigenetic screening technology that improves molecular-based disease diagnosis, and may hold the key to more personalized therapy. It employs high-throughput DNA sequencing that enables doctors to determine a patient's epigenetic profile in just 3-4 days, while using a very small sample of cells. The project was led by Prof. Saverio Minucci at the **FIRC Institute of Molecular Oncology/European Institute of Oncology (IFOM-IEO)** in Milan, which is recognized as one of the world's leading centers for epigenetic research. His team worked closely with U.S. colleagues at the **J. Craig Venter Institute** in Maryland and **Sangamo BioSciences** in Virginia, and published their results in the international journal *Development Cell*. Epigenetic research is an increasingly important branch of molecular biology that focuses on the mechanisms regulating gene expression, and how such alternations can lead to diseases such as cancer.

For more information: Prof. Saverio Minucci, saverio.minucci@ifom-ieo-campus.it

Bio3 Research and Two Californian Companies Team Up to Fight Cardiovascular Disease

Milan-based Bio3 Research S.r.l. SynGen and Protelica (formerly ProtElix, Inc.) both based in Hayward, California have entered an agreement to collaborate on R&D involving mimic-antibodies that could potentially be used to help fight heart disease. The agreement merges Bio3 Research's intellectual property and marketing expertise with Protelica's core antibody mimics platform and SynGen's innovative nucleic acid solutions. The goal is to discover and develop cheaper, more effective protein drug antagonists focused on HMGB1 – a biological target identified as a primary factor contributing to several cardiovascular disorders. The three companies estimate the global market for such therapeutics at about \$35 billion. Their collaboration is the result of Bio3 Research's participation in the **Italian Pavilion at BIO 2008**.

For more information: www.bio3research.com

ITALIA



Italian Trade Commission

Connecting with Italian Biotech: New Policies, New Opportunities

May 19, 2009

W Atlanta Midtown, Altitude (27th Floor)
188 14th Street NE, Atlanta 30361

- 7:00 PM - 7:30 PM **Guest Arrival and Registration**
- 7:30 PM - 7:35 PM **Welcome**
Paola Bellusci, Trade Commissioner
Italian Trade Commission, Los Angeles
- 7:35 PM - 7:45 PM **Current Trends in Italian Biotechnology**
Leonardo Vingiani, Director, Assobiotec
- 7:45 PM - 8:00 PM **The View from Washington**
Cole Werble, Senior Executive Editor
FDC-Windhover
- 8:00 PM - 8:15 PM **Inbound-Outbound Financing**
Nicola Fiordalisi and Gino Serra
Partners, Bryan Cave LLP
- 8:15 PM - 8:30 PM **Italian-American Success Stories**
Giuseppe Martini, Director, Life Sciences Department
Italian National Research Council (CNR)
- 8:30 PM - 8:35 PM **Closing Remarks**
Mark Trusheim, President, Co-Bio Consulting
- 8:30 PM - 10:00 PM **Italian Buffet Dinner and Networking**

BIO
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In partnership with:



Italian Companies at Bio 2009

Italian Pavilion
BOOTH #4301
May 18-21, 2009
Georgia World Congress Center



Organizations:		
Italian Trade Commission www.italtrade.com	Need Pharmaceuticals www.needpharma.com	Shardna Life Sciences www.shardna.it
Assobiotec www.assobiotec.it	Nexthera Biosciences S.r.l. www.nexthera.com	Torino Chamber of Commerce - Member Companies & Organizations:
National Committee for Biosafety, Biotechnology and Life Sciences www.palazzochigi.it/biotechnologie www.osservatoriobiotec.it	Parco Tecnologico Padano www.tecnoparco.org	Torino Chamber of Commerce www.to.camcom.it
Regione Lombardia Promos, Special Agency of the Milan Chamber of Commerce - Member Companies & Organizations:	Pharma & Biotech Advisors S.r.l. www.pharmaebiotec.com	Centro Estero per l'Internazionalizzazione S.C.P.A. www.centroestero.org
Regione Lombardia www.regione.lombardia.it	TOP (Transgenic Operative Products) S.r.l. www.top-mice.com	Bioindustry Park del Canavese S.p.A. www.bioindustrypark.eu
Promos - Special Agency of the Milan Chamber of Commerce www.promositaly.com	Sardegna Ricerche - The Technology Park of Sardinia - Member Companies & Organizations:	Bioman S.r.l. www.bioman.it
Areta International www.aretaint.com	Sardegna Ricerche - The Technology Park of Sardinia www.sardegnaRicerche.it	CCS Aosta S.r.l. www.micosat.it
Artenergy S.r.l. www.chem-med.eu	Bcs Biotech S.p.A. www.biocs.it	Nanovector S.r.l. www.nanovector.it
CMC & QS S.r.l. www.cmcqs.com	Biofarmitalia S.p.A. www.biofarmitalia.it	Spider Biotech S.r.l. www.spiderbiotech.com
Emmeplus SpA	Bioflag www.bioflag.it	Other Italian Exhibitors:
Fondazione Centro San Raffaele www.fondazioneSanraffaele.it	Bio-Ker S.r.l.	Italian National Research Council - Department of Life Sciences www.life.cnr.it
Fondazione Istituto Insucrio di Ricerca per la Vita www.ricercaperlavita.it	Crs4 www.crs4.it	Fondazione Toscana Life Sciences www.toscanalifesciences.org
Ho.p.e www.hopekit.com	Edx Diagnostics S.r.l. www.edxdia.com	Menarini Biotech Srl www.menarini.com
	Pharmaness www.pharmaness.it	Molmed SpA www.molmed.com
	Proteotech S.r.l. www.proteotech.it	

ABOUT THE ITALIAN TRADE COMMISSION

The Italian Trade Commission, also known as the Italian Institute of Foreign Trade, is the government agency responsible for the promotion of trade, business opportunities, and industrial cooperation between Italian and foreign companies, as well as research centers and universities.

The Italian Trade Commission supports the international activities of Italian firms, including their presence and consolidation in foreign markets. It operates more than a hundred offices in eighty-four countries, including five in the United States of America: New York, Los Angeles, Chicago, Atlanta, and Miami.

The Italian Trade Commission's promotional activities are financed both by government funds, provided by

the Italian Ministry for Economic Development, and by private contributions by companies that benefit from its activities and services. These include the exchange of information, assistance in marketing planning, promotion, multilateral cooperation, and training.

U.S. biotechnology and nanotechnology companies are encouraged to contact the Italian Trade Commission in Los Angeles to learn what Italy has to offer in terms of products, services and investment/collaboration opportunities.

In addition, U.S. companies can find out where to meet Italian companies in the U.S. at trade shows, workshops and conferences, as well as in Italy via trade missions and other promotional activities.

ITALIA



Italian Trade Commission

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