

one **STEP**  
FOR YOU ....

... one  
leap for YOUR  
**SUCCESS**

# THE BIOTECHNOLOGY AND PHARMA INDUSTRY IN LITHUANIA



Lithuanians have a natural inclination for rearranging, for looking at things with fresh eyes, for coming at reality from an unusual angle. So it should not come as a surprise that Lithuanian bioscientists have invented a way of using enzymes to cut genes three times quicker than the best previously known methods.

**Wally Olins,**  
one of world's leading practitioners in  
corporate identity and branding



## Opportunities for Biotech and Pharma Businesses:

- Biotech and pharma production and research have no equivalents in Central and Eastern Europe
- Sector sales growing 22% annually in comparison with the average global figure of 15%
- Exports of 80% of biotech and pharma production to over 70 countries
- Financial support and fiscal incentives for R&D and business development projects
- Pool of multilingual biotech and pharma developers, speaking fluent English, Russian and other foreign languages
- Labour costs more than twice lower than those in the EU and the US
- 15 research centres and 16 institutions training biotech specialists
- Intellectual property protection in line with the EU requirements

# Market Overview

The Lithuanian biotechnology industry has been developing since the 1990s and is regarded as one of the most sophisticated in Central and Eastern Europe.

The Lithuanian Government has made the development of high tech industry a top priority through the "Programme on the Development of High Technologies with identified Priority Areas of Research and Development" and the "Programme on the Development of Industrial Biotechnology".

Lithuanian biotechnology sector sales have grown by approximately 22% annually for the past 5 years, which is 7% more than the average 15% growth of the global biotechnology sub-sector.

Lithuania has 8 commercial enterprises specializing in the development of biotechnological healthcare products, with UAB Fermentas and UAB Sicor Biotech (part of TEVA group) at the top of the list.

In September 2008, the Lithuanian research team of UAB Sicor Biotech introduced a 25-35% cheaper cancer medication (which is just as effective as an existing version) to the

**A Lithuanian research team introduced a 25-35% cheaper, but just as effective version of an existing cancer-treatment to the world market.**

world market. This breakthrough achievement represents one of the country's most important accomplishments in the health and science industry.

In 2009, there were at least 18 therapeutic products in the pipeline in the CEE countries, with the majority in the preclinical phase, including 2 cases in Lithuania.



## Available Skills and Research

Lithuania offers a relatively large pool of highly-qualified specialists, researchers and scientists in biochemistry, microbiology, biological engineering and other biotech fields.

There is a pool of 18,000 R&D researchers and specialists in Lithuania today.

15 research institutions carry out chemical and biochemical research on protein, enzymes and nucleic acid for pharmaceutical purposes, and also execute molecular biology research on prokaryote and eukaryote cells.

16 institutions, including five major universities, train biotechnology and business specialists in cooperation with both domestic and foreign biotechnology companies.

According to their number of employees, UAB Fermentas and UAB Sicor Biotech are considered to be major companies in Europe, employing 345 and 170 specialists respectively. These two companies, along with UAB Biocentras, have accumulated significant experience in international commerce, the implementation of hi-tech innovations and have been successfully managing intellectual property acquisition and protection issues.

Another group of biotech companies consists of small business enterprises, such as UAB Biota, UAB Biotechpharma, UAB Imunolita, and the recently established UAB Profarma, which manufacture knowledge-intensive products, and/or supply knowledge-intensive services.

These enterprises can experience successful growth by appealing to either international or domestic investors. In the current phase of development, it is important for these small businesses to demonstrate quality personnel as well as prove their potential to organize production on a wider scale.

Biofuel (bioethanol and biodiesel fuel) production is another rapidly developing sector of the country's economy. Industrial biofuel production commenced in Lithuania in 2004, reaching a total of EUR 21.4 million in 2006, and is expected to surpass EUR 290 million by 2010.

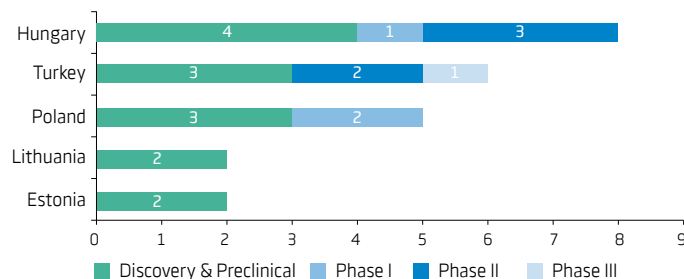
## Success is Consolidated

The success of the Lithuanian biotechnology industry has been reinforced by the return of 17 Lithuanian scientists bringing with them extensive overseas experience, knowledge and funding to pursue research work at the Institute of Biotechnology in Vilnius.

The construction and establishment of the first Baltic Medical and Pharmaceutical Valley began in the capital, Vilnius.

The Vilnius Santara Valley will join the country's top pharmaceutical companies, scientists, researchers, and educational institutions for a common research project aimed at creating new medications, diagnostics methods, and more efficient means of curing illnesses.

**Therapeutic Product Development Pipeline in the 14 New Member States and Candidate Countries**



Source: www.biotechgate.com

## Incentives & support for R&D projects:

- Scientific research and experimental development (R&D) costs deducted 3 times from income for the tax period during which they were incurred, if the performed R&D works are related to the usual or intended activities of the entity that generate or will generate income or economic benefit
- Super-accelerated depreciation - acquisition price of fixed assets used in the R&D activities can be written-off within two years
- Investments into substantial technological improvements entitles the companies to reduce the taxable profit down by 50%



The success of the Lithuanian biotechnology industry is proven by the homecoming of Lithuanian scientists

## Market Leaders



UAB Fermentas is a R&D and manufacturing company which develops and manufactures products for genetic engineering, molecular biology, genomic research and other biotechnological investigations (over 400 products). Expansion of efforts in the field of molecular diagnostics is currently taking place. Big scale production of kits for molecular diagnostics is also planned. Fermentas exports more than 99% of its products to over 70 countries worldwide and manufacturers over 100 products under licence agreements with world-renowned companies.



The enterprise of biotechnological pharmacy UAB Sicor Biotech produces recombinant proteins for medical use (interferon alpha-2b, human growth hormone, granulocyte colonies stimulating factor, erythropoietin). It is the only factory of such a profile in Eastern and Central Europe. Sicor Biotech is a member of TEVA group (TEVA Pharmaceutical Industries Ltd., Israel). It has a strong and very well-equipped research centre, developing technology for the production of recombinant proteins. The company has notably introduced a 25-35% cheaper but just as effective version of an existing medicine for treating cancer to the world market.

### Investment Project Cycle

(2 months)

**Evaluation and approval**  
(Ministry of Economy, Invest Lithuania)



### Investment Agreement

(Ministry of Economy)



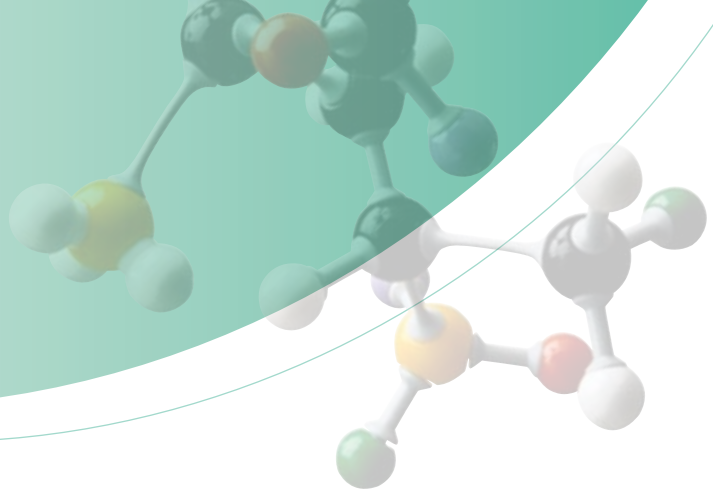
**Application for financial support**  
(Lithuanian Business Support Agency)



### Project Finance Agreement

### Support for Businesses:

- Financial incentives packages offered by the Government to cover wage and personnel training costs, purchase of equipment etc.
- Tax incentives for investments into new technologies and R&D
- Tax "holidays" in 2 free economic zones
- Land and real estate tax relieves
- Tailor-made information packages, guidance through all the investment process (contact building, arranging visits and meetings, dealing with authorities, investment site selection etc.) as well as investment aftercare by Invest Lithuania
- Special agreements and assistance by the Government



# Why Lithuania?

## One of EU's greatest talent pools

- Percentage of population with higher education (30%) higher than the EU average (24%)
- ~90% speak at least one foreign language; 30% speak English
- 22 universities and 27 colleges

## Part of EU single market

- Laws fully harmonized with the EU legislation
- Unrestricted movement of goods, services, capital, and dividends within the EU

## Space for fusion of business and science

- 5 valleys specializing in different scientific research fields
- 2 free economic zones
- 4 industrial parks

## World-scale leadership

- World's fastest upload Internet
- 80% of the world market for high-energy pico second lasers
- Over 50% of global production of ultra-fast parametric light generators
- Newest worldly-acknowledged medicine against cancer TevaGrastim®

## EU's prime transport centre

- Two Trans European Network (TEN) corridors
- Baltic northernmost only ice-free seaport
- 3 international airports
- Regionally best network of roads and highways



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