



# Estonian biotech in 7<sup>th</sup> Framework Programme

Argo Soon

Research Cooperation Centre

Archimedes Foundation

# Biotechnology

Any technological application that uses

- biological systems,
- living organisms, or
- derivatives thereof,

to make or modify products or processes for specific use

[www.wikipedia.org](http://www.wikipedia.org)

# Research on medical biotechnology in Estonia

- Universities
  - University of Tartu
  - Tallinn Technical University
- Independent research institutions
  - National Institute of Chemical Physics and Biophysics
- Research organisations
  - Estonian Biocentre
  - Estonian Biotechnology Association
- Hospitals
- SMEs
- Big industries?

# Industry involvement in biotech R&D: Competence Centres

- Competence Centre of Food and Fermentation Technologies [www.tftak.org](http://www.tftak.org)
- Competence Centre of Healthy Dairy Products [www.tptak.ee](http://www.tptak.ee)
- Estonian Nanotechnologies Competence Centre [www.encc.com](http://www.encc.com)
- Competence Centre for Cancer Research [www.vtak.ee](http://www.vtak.ee)

[www.eas.ee/tak](http://www.eas.ee/tak)

# Estonia in 7 FP Health topic

	Total		
	Sub- mitted	Suc- cessful	Success rate (%)
I call	914	152	17
II call	902	167	19

# Biotech and estonians in FP 7 projects

**ESNATS** Embryonic Stem cell-based Novel Alternative Testing Strategies

**LACTOBODY** Production and delivery of antibody fragments against gastrointestinal pathogens by lactobacilli

**ENGAGE** European Network for Genetic and Genomic Epidemiology

**DIABIMMUNE** Pathogenesis of Type 1 Diabetes - testing the hygiene hypothesis

**RareDiseasePlatform** A European Platform of Integrated Information Services for Researchers in the Field of Rare Diseases and Orphan Drugs

**EUROGENOMES** The European Genome: genetic diversity of human populations in Europe for research

# Biotech and estonians in FP 7 projects

**NEUROPRO** Oligopeptidase inhibitors in brain function and dysfunction: towards new therapeutic strategies for neuroprotection

**TECHGENE** High throughput molecular diagnostics in individual patients for genetic diseases with heterogeneous clinical presentation

**GP-TCM** Good practice in Traditional Chinese Medicine Research in the Post-genomic Era

**SchizDX** Minimally invasive, tools & technologies for high-throughput, low-cost molecular assays for the early diagnosis of schizo-phrenia and other psychiatric disorders

**AAVEYE** Gene Therapy for inherited severe photoreceptor diseases

**MYOAGE** Understanding and combating age-related muscle weakness

**CHERISH** Improving Diagnoses of Mental Retardation in Children in Central Eastern Europe and Central Asia through Genetic characterisation and Bioinformatics/-Statistics

# Active Estonian (industrial) partners in FP 7 projects on biotechnology

Applied Phenomics

Asper Biotech

Celecure

Competence Centre of  
Cancer Research

Genomictoolbox

Immunotron

Inbio

Kinamera

MikroMasch Eesti

Protobios

Quattromed

Queretec

# COST

- European Cooperation in the field of Scientific and Technical Research
- Since 1971
- Mission: increasing European cooperation and interaction in the field of Scientific and Technical Research
- 9 domains

# COST topics

- Biomedicine and Molecular Biosciences
- Food and Agriculture
- Forests, their Products and Services
- Materials, Physical and Nanosciences
- Chemistry and Molecular Sciences and Technologies
- Earth System Science and Environmental Management
- Information and Communication Technologies
- Transport and Urban Development
- Individuals, Societies, Cultures and Health

# **COST topics with biotech potential**

- **Biomedicine and Molecular Biosciences**
- **Food and Agriculture**
- **Forests, their Products and Services**
- **Materials, Physical and Nanosciences**
- **Chemistry and Molecular Sciences and Technologies**
- **Earth System Science and Environmental Management**
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- **Transport and Urban Development**
- **Individuals, Societies, Cultures and Health**

# Open COST actions

related to biotechnology

## Biomedicine and Molecular Biosciences:

- BM0801 Translating genomic and epigenetic studies of MDS and AML
- BM0802 Life or death of protozoan parasites
- BM0803 HLA-NET: A European network of the HLA diversity for histocompatibility

# Open COST actions

related to biotechnology

## Food and Agriculture:

- FA0804 Molecular farming: plants as a production platform for high value proteins

## Chemistry and Molecular Sciences and Technologies

- CM0801 New drugs for neglected diseases
- CM0802 European Phosphorus Sciences Network (PhoSciNet)

## More about COST

<http://www.cost.esf.org>

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**Thank you!**

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