



# From science to practice THE EUROPEAN WAY



**EURO  
STUDIES**



**EURO  
STUDIES**

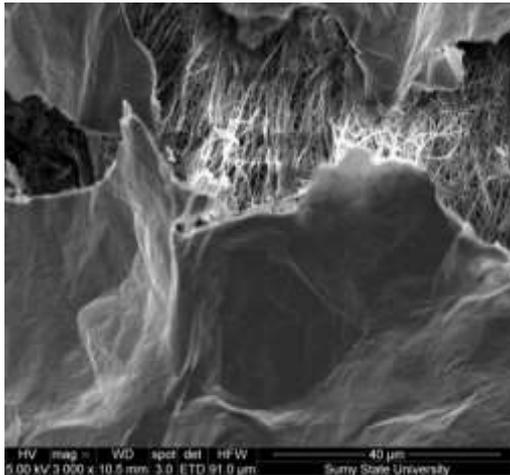


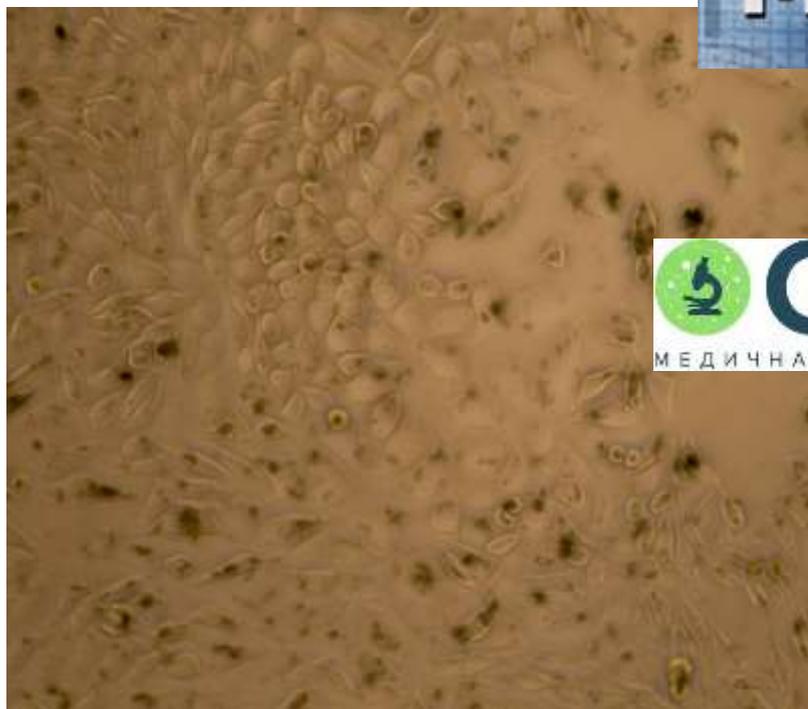
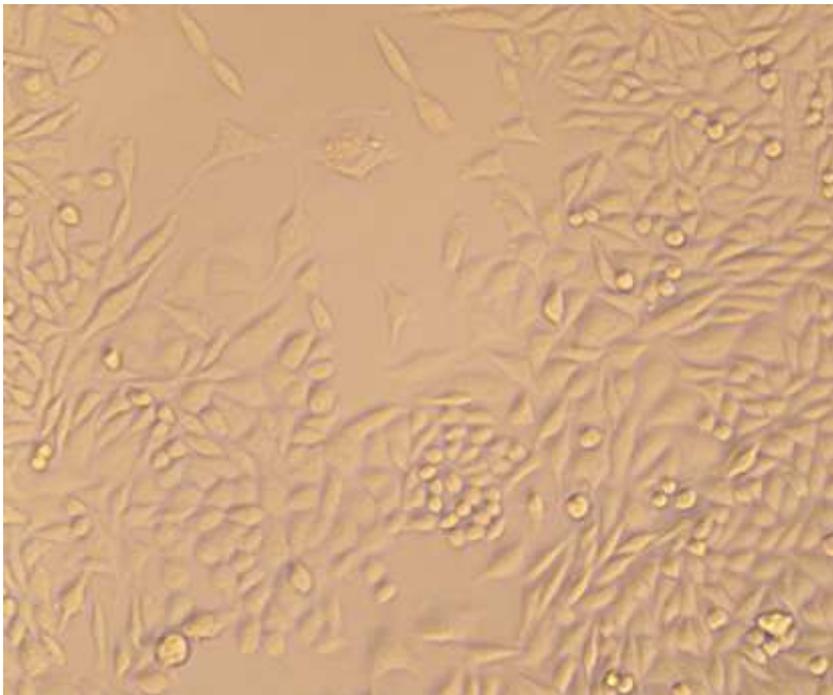
**Jean Monnet Support to Associations EUforUA**

# Biomedical Research Center

## Medical Institute of Sumy State University

- Cell culture laboratory
- Microbiological laboratory
- ELISA laboratory
- Chemical and toxicological laboratory











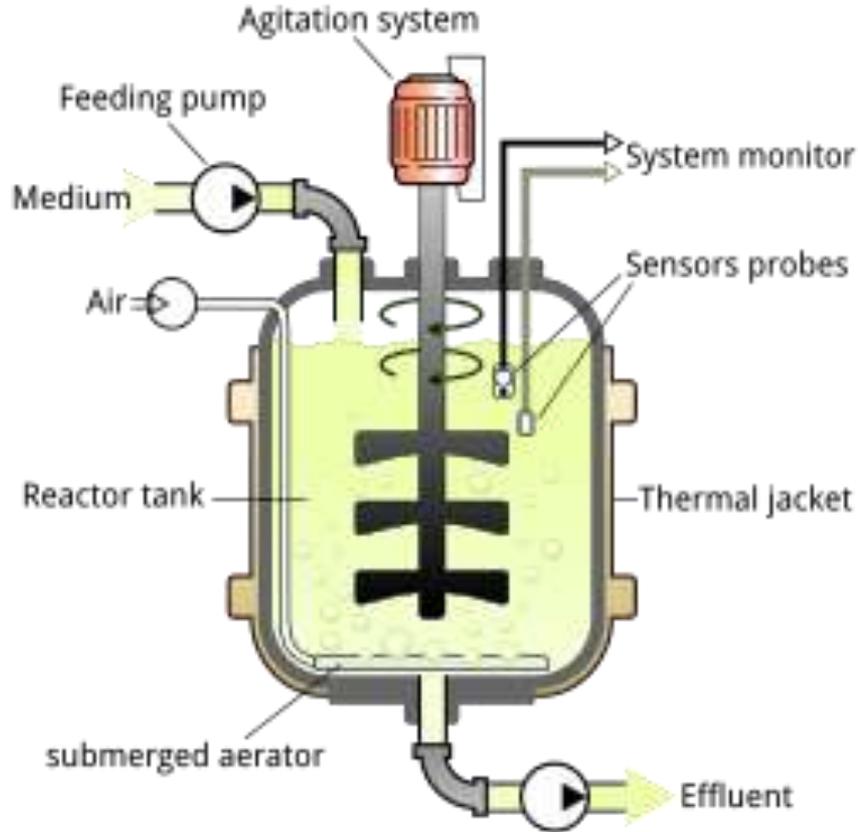
Jean Monnet  
Programme



# Shake flask bacterial culture



# Fed-batch fermentation



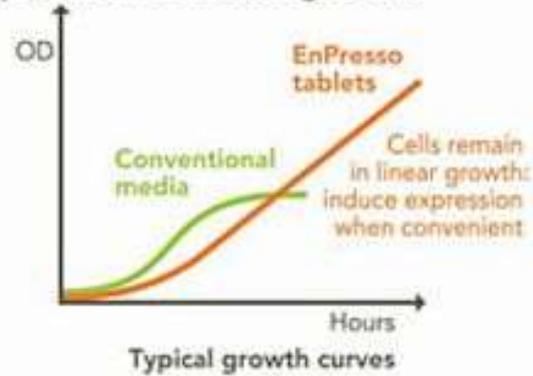


## EnBase® Flo Shake Flask Set 2 x 500 mL

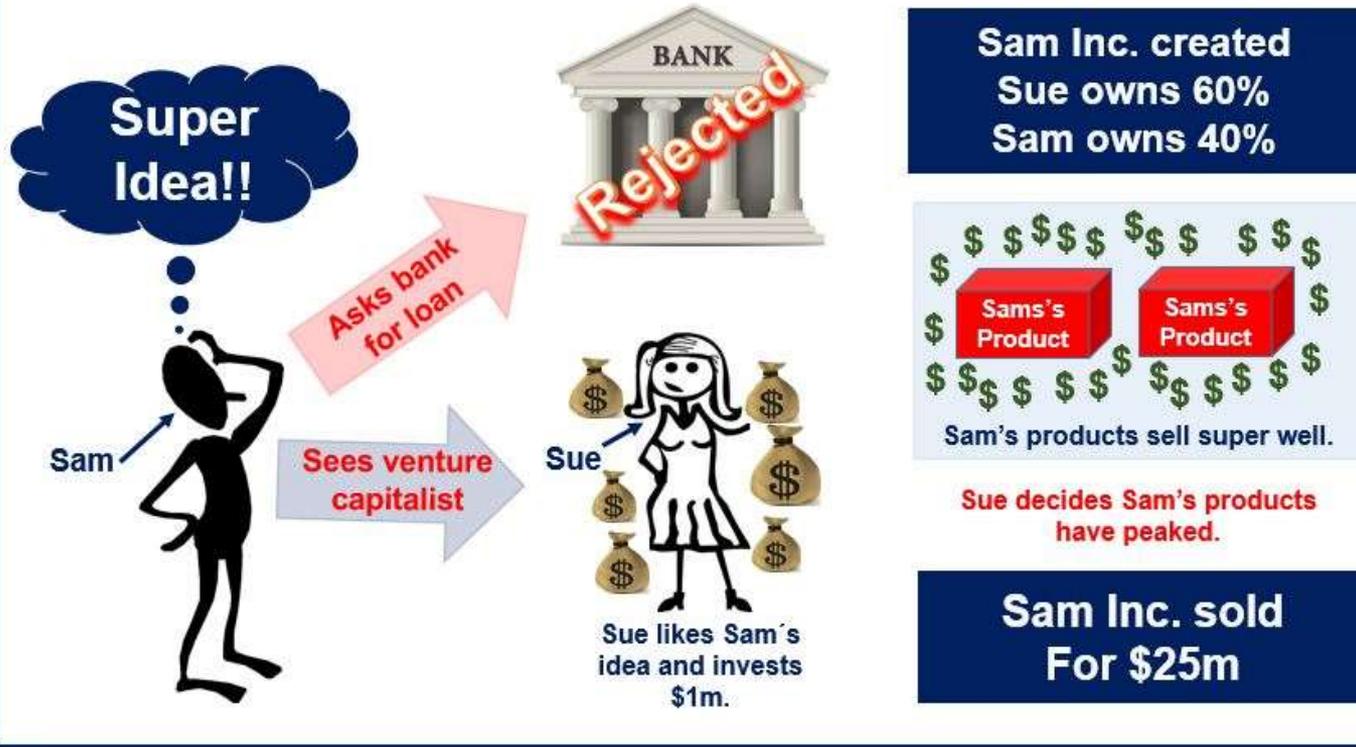
User Manual EBLM500 – Rev.2.31

For research use only. Not for human or diagnostic use.

### Optimize microbial growth



# What is venture capital?





BioSilta



Oy

Company



**Headquarters location:** Oulu, Finland

**Founded:** 2007

**Parent organization:** BioSilta Ltd.

*Disclaimer*



Jean Monnet  
Programme





Jean Monnet  
Programme





Jean Monnet  
Programme





1/20





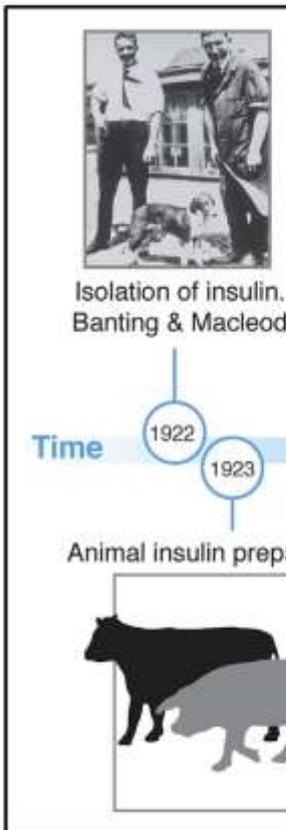


Figure 1 Miles

© The Nobel Foundation. Photo: Lissa Engren



## THE NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE 1923



**Frederick G. Banting**  
(1891-1941)  
Prize share: 1/2

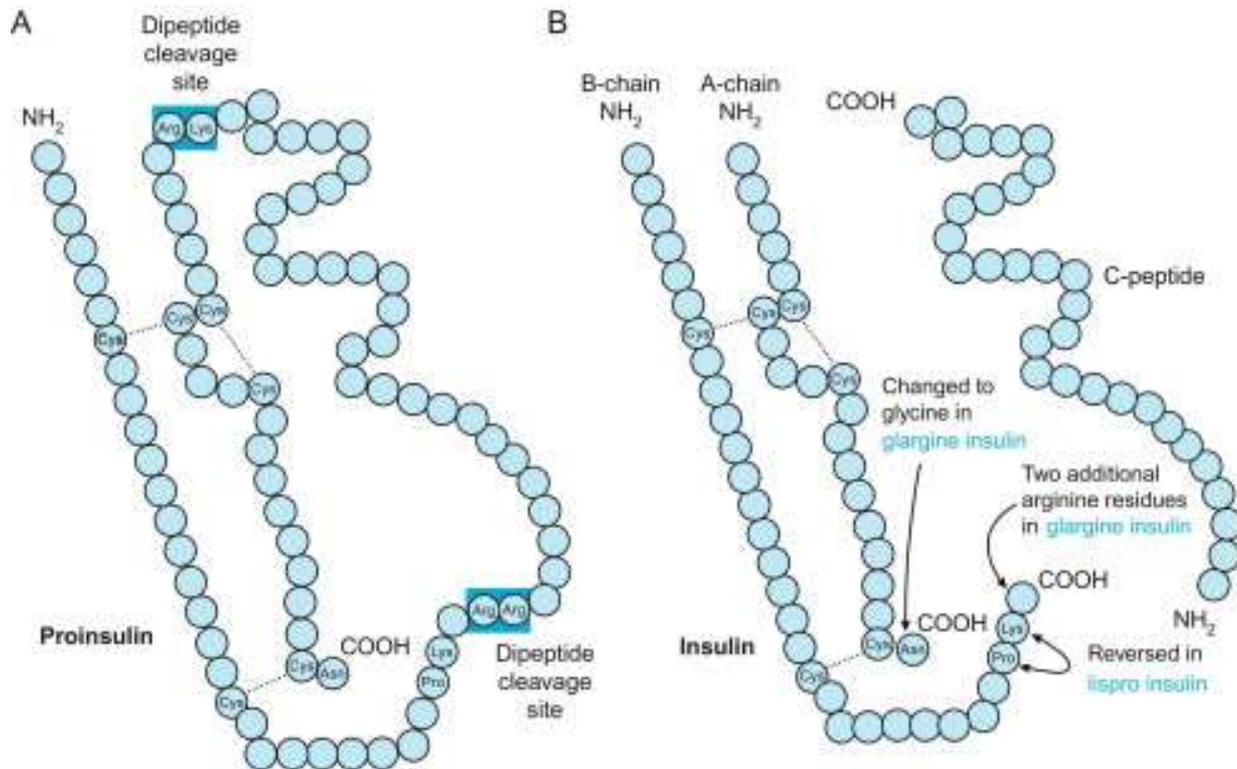


**John Macleod**  
(1876-1935)  
Prize share: 1/2

*"for the discovery of insulin".*

 **Nobelprize.org**  
The Official Web Site of the Nobel Prize







# Виробництво інсуліну в Україні



[indar.com.ua](http://indar.com.ua)

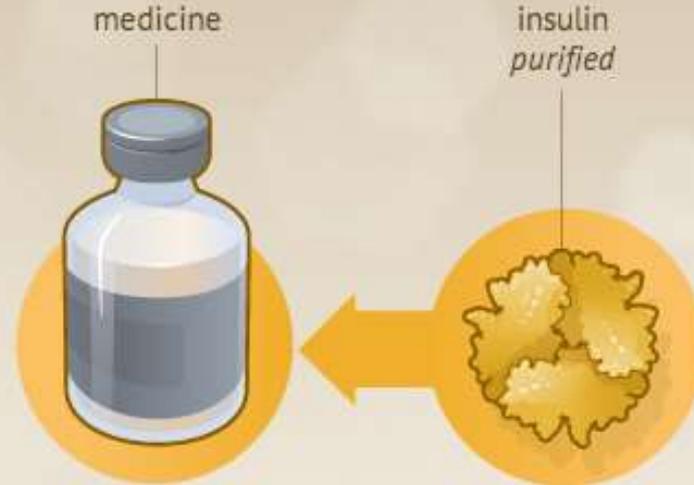


Jean Monnet  
Programme



# How do they do it?

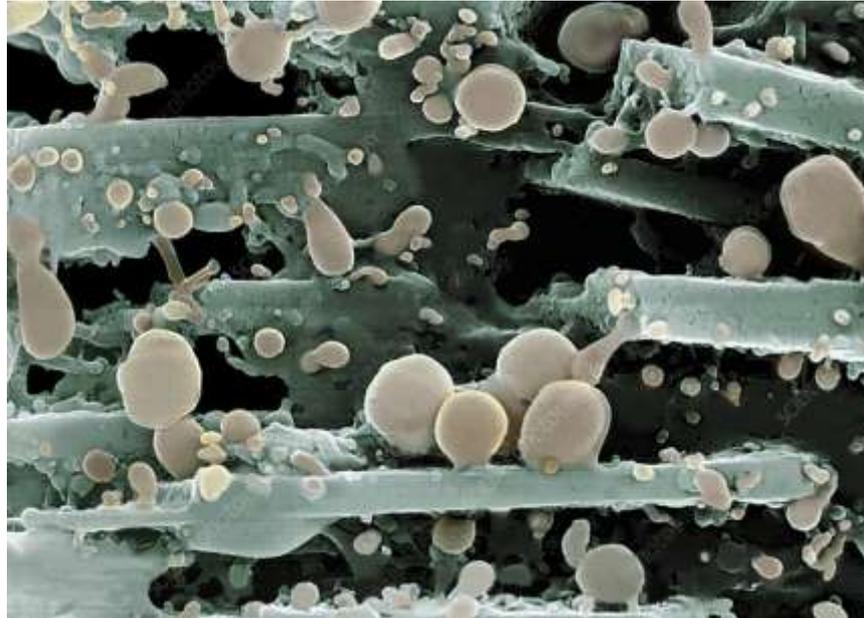
HOW DID THEY MAKE INSULIN FROM RECOMBINANT DNA?





# Nanobac Oy

Detection and treatment of  
Calcifying Nanoparticles (CNPs),  
otherwise known as nanobacteria.





## Nanobac Oy



Company

**Headquarters location:** [Kuopio, Finland](#)

**Founded:** 1998

**Parent organization:** [Nanobac Pharmaceuticals, Inc.](#)

*Disclaimer*

... soft tissue calcification, particularly in coronary artery heart disease, prostatitis and vascular disease.



# Ark Therapeutics Oy



Jean Monnet  
Programme



## Gene Therapy for Malignant Glioma: Current Clinical Status

Kalevi J. Pulkkanen<sup>1,2</sup> and Seppo Yla-Herttuala<sup>1,3,4,\*</sup>

<sup>1</sup>Department of Molecular Medicine, A. I. Virtanen Institute, University of Kuopio, P.O. Box 1627, FIN-70211 Kuopio, Finland

<sup>2</sup>Department of Oncology, <sup>3</sup>Department of Medicine, and <sup>4</sup>Gene Therapy Unit, Kuopio University Hospital, Kuopio, Finland

\*To whom correspondence and reprint requests should be addressed. Fax: +358 17 163030. E-mail: Seppo.YlaHerttuala@uku.fi.

Available online 10 August 2005

Glioblastoma is an aggressive brain tumor with a dismal prognosis. Gene therapy may offer a new option for the treatment of these patients. Several gene therapy approaches have shown anti-tumor efficiency in experimental studies, and the first clinical trials for the treatment of malignant glioma were conducted in the 1990s. HSV-tk gene therapy has been the pioneering and most commonly used approach, but oncolytic conditionally replicating adenoviruses and herpes simplex virus mutant vectors, p53, interleukins, interferons, and antisense oligonucleotides have also been used. During the past few years, adenoviruses have become the most popular gene transfer vectors, and some recent randomized, controlled trials have shown significant anti-tumor efficacy in clinical use. However, efficient gene delivery into the brain still presents a major problem, and there is a lack of definitive phase III trials, which would avoid potential problems associated with a small number of patients, inadvertent patient selection, and overinterpretation of results based on a few long-time survivors. For clinical efficacy, median survival is one of the most rigorous endpoints. It is used here to evaluate the usefulness of various treatment approaches and current clinical status of gene therapy for malignant glioma.

# FIT Biotech Oy



FIT Biotech Oy is a clinical-stage biotechnology company. ... The group generates revenue through the sales of services related to the HIV vaccine.

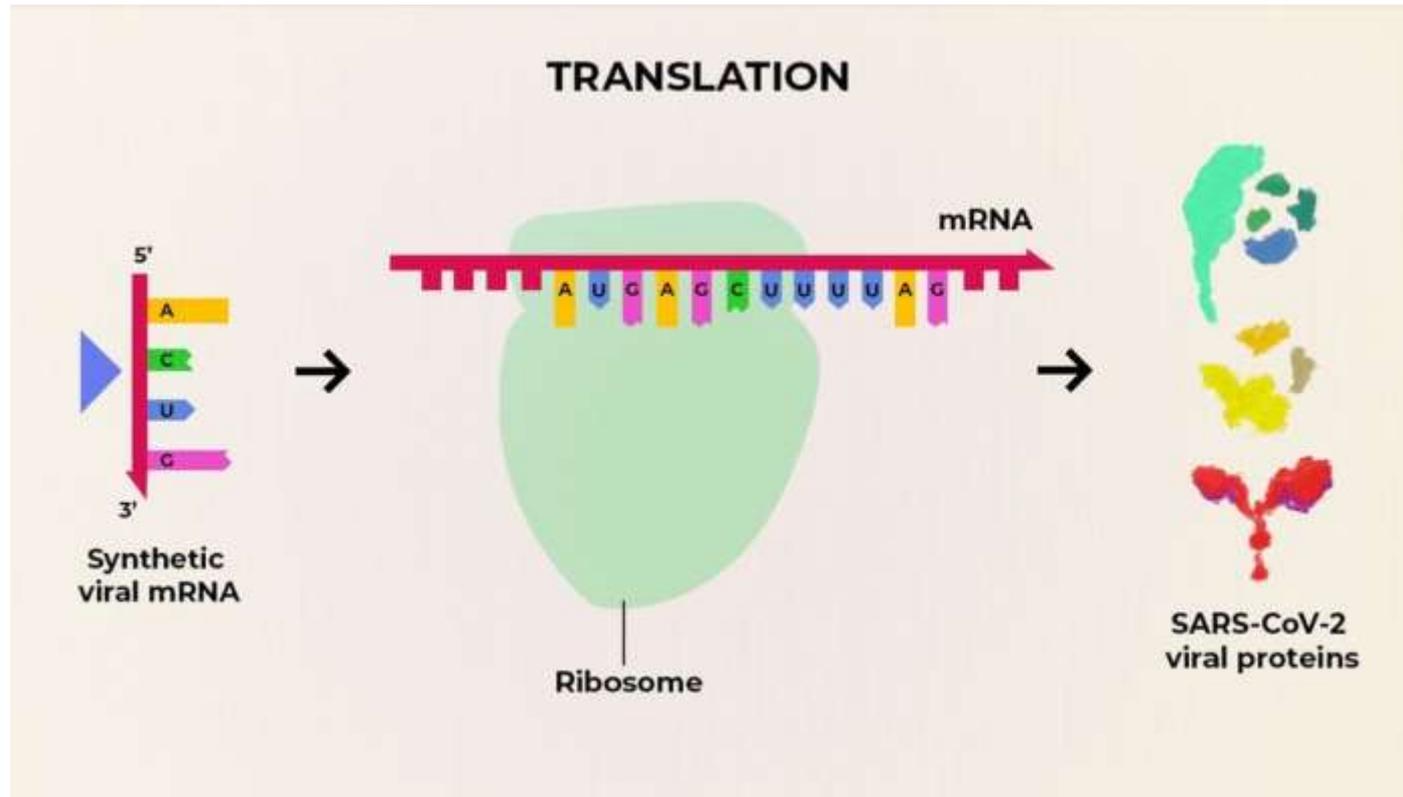


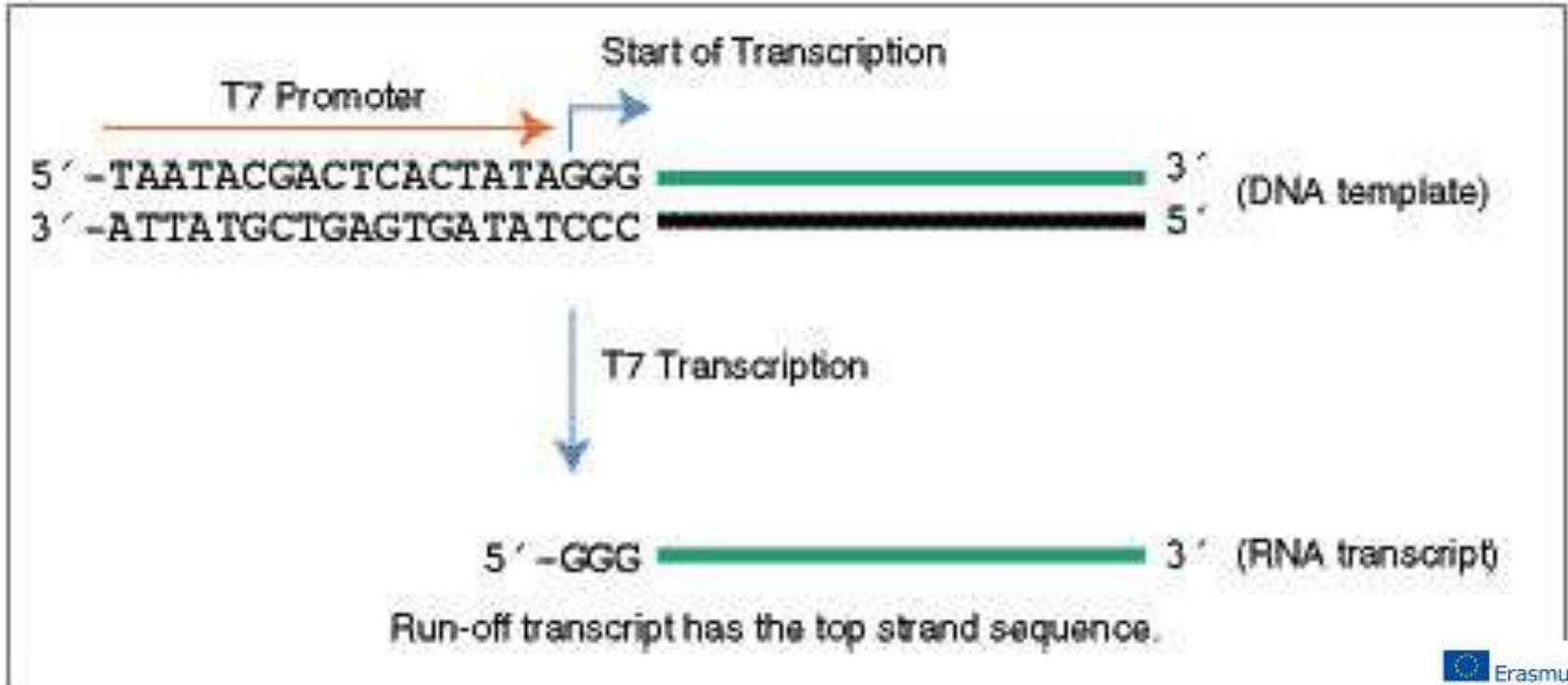
- HIV vaccine???
- DNA vaccine???

Tampere-based FIT Biotech plans to begin testing in 2014.













# CEREBRICON

Advancing knowledge in CNS biology



Cerebricon Ltd. is a provider of high quality and cost effective pre-clinical contract research utilising models of CNS diseases such as stroke, Parkinson's disease, Alzheimer's disease, multiple sclerosis, migraine, traumatic brain injury, spinal cord injury, Huntington's disease and ALS.



Jean Monnet  
Programme



[https://saastamoinenfoundation.fi/wp-content/uploads/2016/08/Koistinaho-Jari-5759\\_500px\\_portrait.jpg](https://saastamoinenfoundation.fi/wp-content/uploads/2016/08/Koistinaho-Jari-5759_500px_portrait.jpg)

[https://neurocenterfinland.fi/wp-content/uploads/2019/11/CRL\\_lab-scaled.jpg](https://neurocenterfinland.fi/wp-content/uploads/2019/11/CRL_lab-scaled.jpg)



# Experimentica Ltd



## Scientific Excellence in Ocular Models<sup>SM</sup>



EXPERIMENTICA

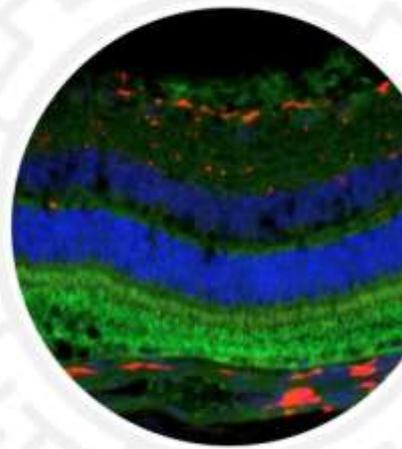
Scientific publication

### Compatibility of Intravitreally Applied Epidermal Growth Factor and Amphiregulin

International Ophthalmology

Co-authors:

Mukharram M. Bikbov, Timur A. Khalimov, Marc  
Cerrada-Gimenez, Symantas Rogauskas, Giedrius  
Kalesnykas, Jost B. Jonas



Erasmus+

Jean Monnet  
Programme



[https://experimentica.com/wp-content/uploads/2020/09/imgAvatar\\_GiedriusKalesnikas.jpg](https://experimentica.com/wp-content/uploads/2020/09/imgAvatar_GiedriusKalesnikas.jpg)

[https://scontent.fymy1-1.fna.fbcdn.net/v/t1.6435-9/s720x720/164880515\\_2865609846985628\\_7630330160003456847\\_n.jpg?\\_nc\\_cat=109&ccb=1-3&\\_nc\\_sid=da1649&\\_nc\\_ohc=7rrxBZkivaAAX9VjPuk&\\_nc\\_ht=scontent.fymy1-1.fna&tp=7&oh=71637a6df5ce0f7020aa49e373a5167c&oe=608E83F7](https://scontent.fymy1-1.fna.fbcdn.net/v/t1.6435-9/s720x720/164880515_2865609846985628_7630330160003456847_n.jpg?_nc_cat=109&ccb=1-3&_nc_sid=da1649&_nc_ohc=7rrxBZkivaAAX9VjPuk&_nc_ht=scontent.fymy1-1.fna&tp=7&oh=71637a6df5ce0f7020aa49e373a5167c&oe=608E83F7)



Jean Monnet  
Programme





Jean Monnet  
Programme





# Fibrin sealant



Ferreira, R. S., Jr., et al. (2017). "Heterologous fibrin sealant derived from snake venom: from bench to bedside - an overview." J Venom Anim Toxins Incl Trop Dis **23: 21.**



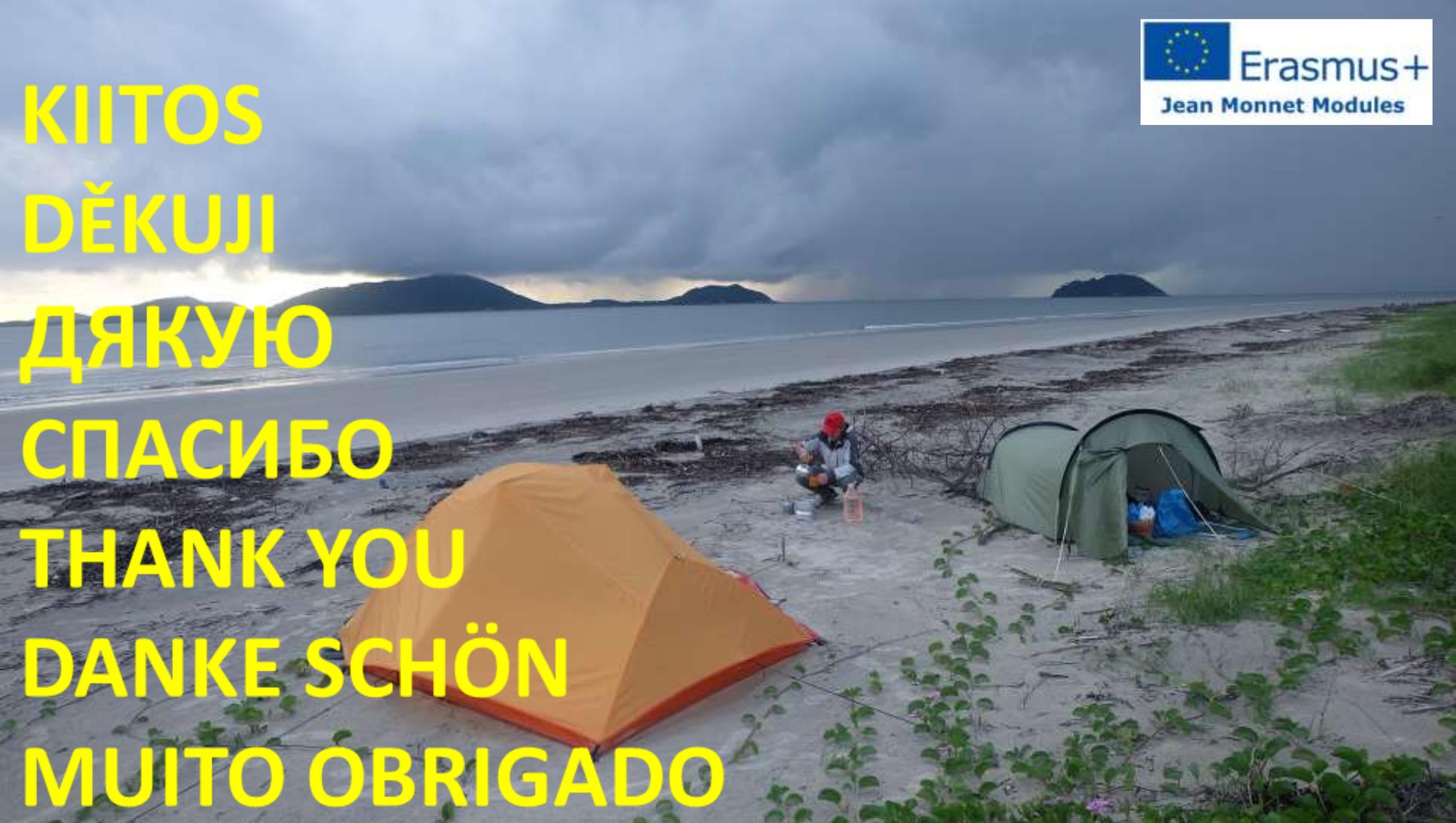


Ferreira, R. S., Jr., et al. (2017). "Heterologous fibrin sealant derived from snake venom: from bench to bedside - an overview." J Venom Anim Toxins Incl Trop Dis **23: 21.**



Ferreira, R. S., Jr., et al. (2017). "Heterologous fibrin sealant derived from snake venom: from bench to bedside - an overview." J Venom Anim Toxins Incl Trop Dis **23: 21.**

ΚΙΙΤΟΣ  
DĚKUJI  
ДЯКУЮ  
СПАСИБО  
THANK YOU  
DANKE SCHÖN  
MUITO OBRIGADO





**Wish you  
very successful ways  
from science to practice!**



**EURO  
STUDIES**



**EURO  
STUDIES**



Jean Monnet  
Programme



**Jean Monnet Support to Associations EUforUA**