

## «New herbal products for the treatment and prevention of socially significant diseases»

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plant species

#### Center of medicinal plant cultivation (SPCPA)



SAINT-PETERSBURG STATE CHEMICAL-PHARMACEUTICAL

For the realization of these advantages we created the «phytopharmaceutical platform»

Evaluation of the possibility of chemical Information and modification and synthesis analytical database Choice of a rational of active molecules of medicinal plants. formulation and development of technology of drugs **Technologies of** Phytocultivation and drying pharmaceutical of medicinal plants Evaluation of the pharmacological platform activity of plant Phytochemical substances screening of medicinal plants **Development of technologies** for the production of total Standardization of extracts and isolation of plant raw materials individual compounds



Search for drugs for the prevention and treatment of socially significant diseases

# **Socially significant diseases**

#### Diabetes



Disorders of fat and carbohydrate metabolism



Liver diseases (hepatitis, nonalcoholic and alcoholic fatty liver, liver fibrosis, etc.)



## Objective of the project:

Obtaining new promising natural compounds and development of active pharmaceutical substances of plant origin for the treatment and prevention of socially significant diseases in partnership between St. Petersburg State Chemical-Pharmaceutical Academy and scientific and educational organizations of Baltic Region.



Turun yliopisto University of Turku



UNIVERSITY OF EASTERN FINLAND



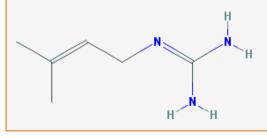






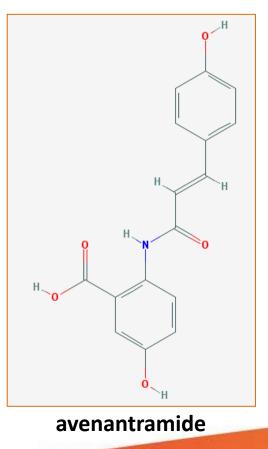
SAINT-PETERSBURG STATE CHEMICAL-PHARMACEUTICAL ACADEMY



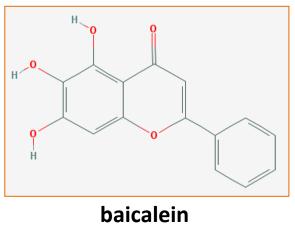


galegine









etc. ... (more than 20 plants)



## **Partnership Objectives**

- Isolation and purification of individual substances from plant materials
- Confirmation of the structure of individual substances by spectral analysis techniques
- Analysis of the biological activity using in vitro methods





#### SAINT-PETERSBURG STATE CHEMICAL-PHARMACEUTICAL ACADEMY

### Uniting the possibilities of SPCPA and foreign partners ...





## The expected results:

 Technologies of cultivation and drying of medicinal plants will be used by farmers engaged in the cultivation of medicinal plants for the medical industry.



 Projects of monographs for Russian and European Pharmacopoeias will be used to standardize new herbal medicinal raw materials.





# The expected results:

 Individual substances of plant origin with a confirmed molecular structure and pharmacological activity will be used to create new effective and safe drugs.



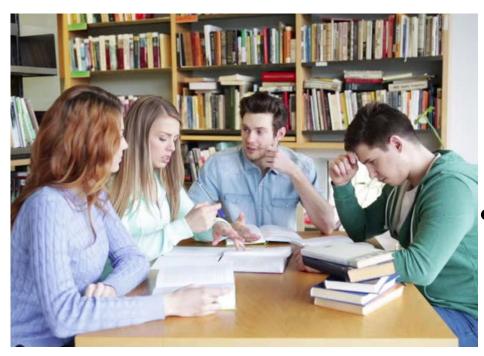
 Protocols of preclinical research will form the basis of patents for new medicinal substances.





# The expected results:

• The results of the project will be published in international journals.



- Educational programs will be created for students in the courses of botany, pharmacognosy, phytochemistry and technology of medicines.
- Training courses will be organized to exchange students from Russia and foreign countries.



## SOUTH-EAST FINLAND-RUSSIA CBC 2014-2020

Cross-border cooperation programme supporting EU's external actions with the financing from the European Union, the Russian

Federation and the Republic of Finland

«Developing Future Networks for joint Russian-Finnish Life Science Activities (FuNLife)»







государственная химикофармацевтическая академия

## Scientific and technical program of the Union State

"Development of highly effective safe pharmaceutical substances on the basis of individual natural compounds for correction of disorders of fat and carbohydrate metabolism"







# Thank you for your attention!