

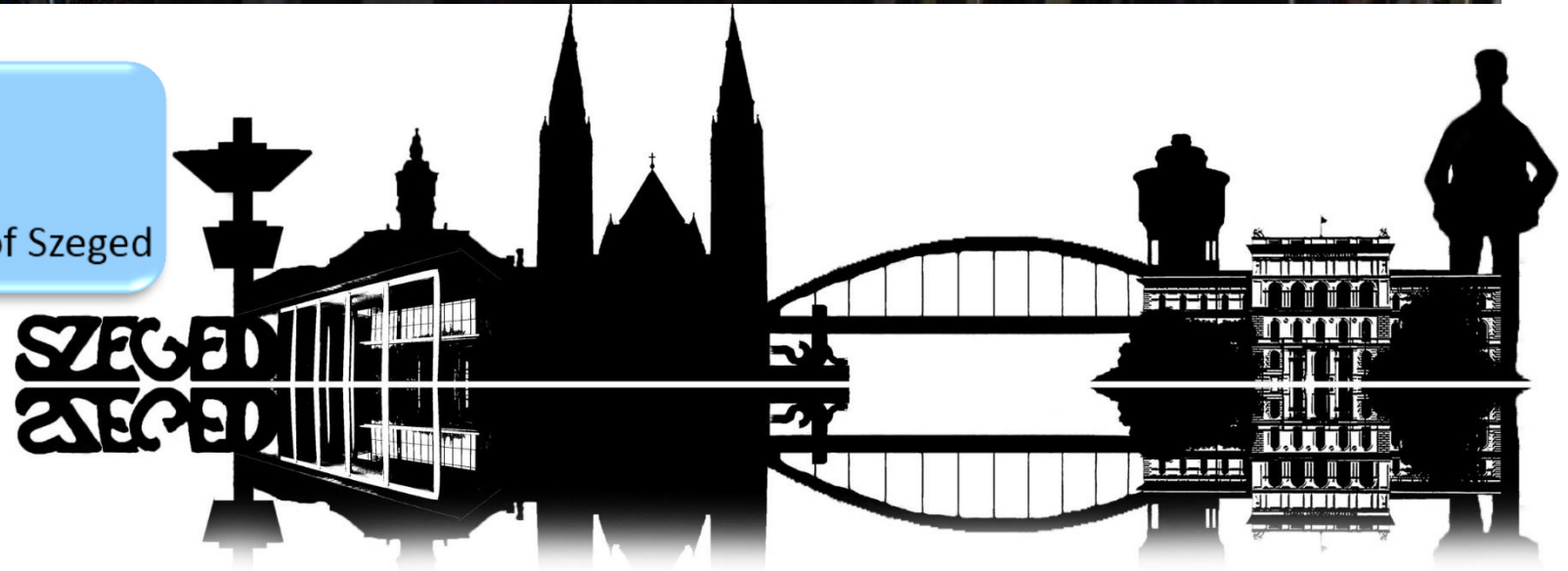
# Szeged - Centre of Science and Innovation



Prof. Tamas Molnar MD, PhD, DSci

Vice-Dean for Scientific Affairs

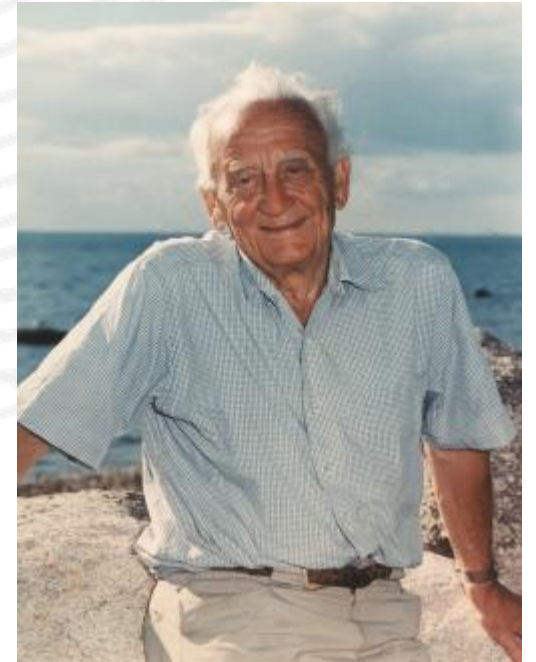
Faculty of Medicine at the University of Szeged



The goals for our institution: “the gathering, spreading and enhancement of human knowledge”

The teaching of future scientists “who will eventually take over this profession from us”

“Our institution has another special mission: to be the intellectual centre of the Great Hungarian Plain”



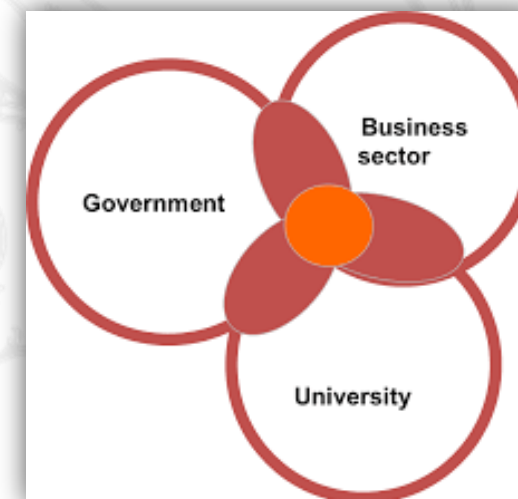
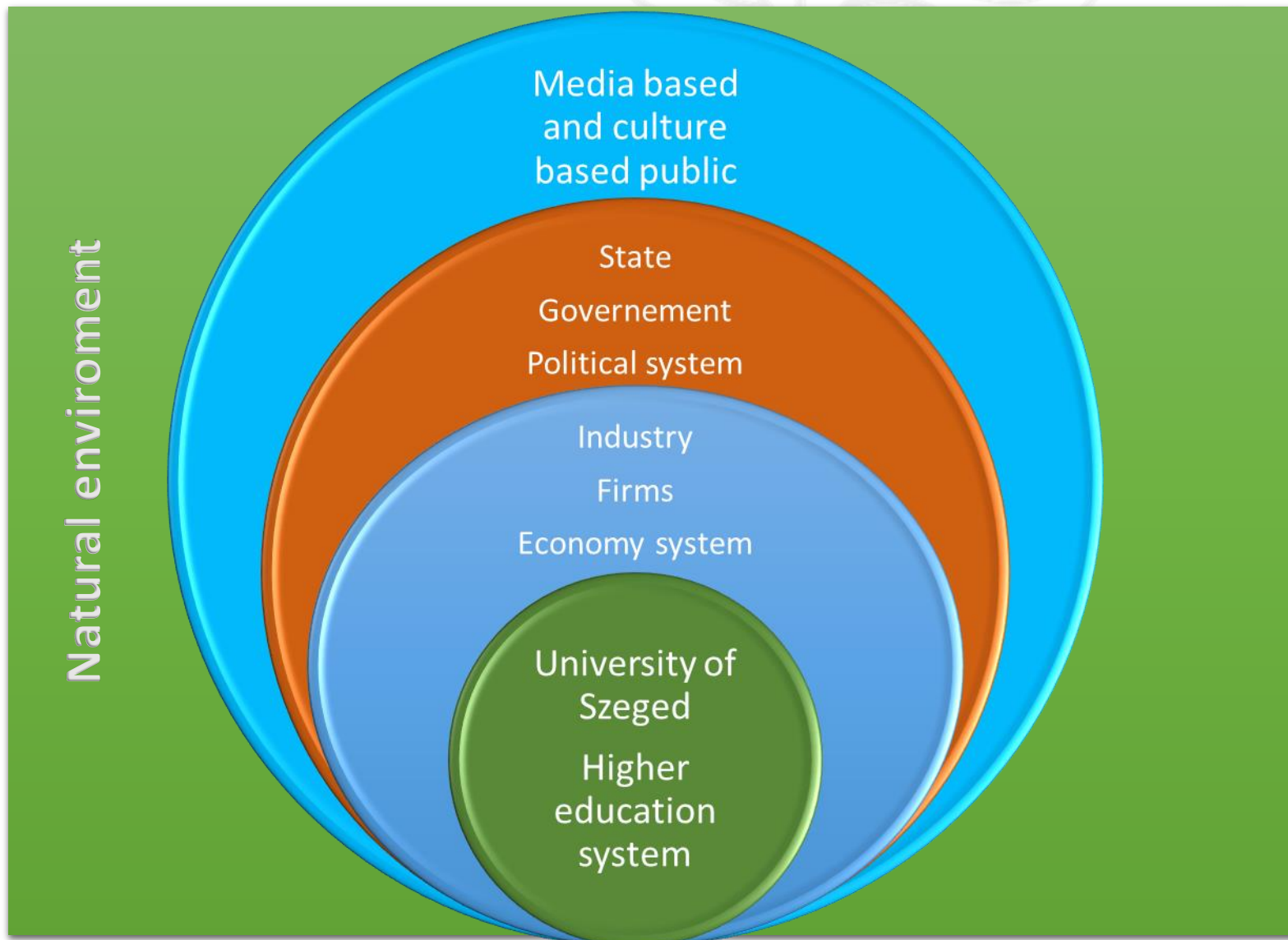
Albert Szent-Györgyi

# History of the University of Szeged



- The history of the University of Szeged dates back to 1581 when István Báthory, the Prince of Transylvania founded a higher education institution in Kolozsvár
- Later Maria Theresia entrusted the Piarists to reorganize the institution as a result of which the Faculty of Medicine-Surgery was established in 1775
- The institution moved to Szeged in 1921

# SZEGED - KNOWLEDGE REGION OF HUNGARY



# SZEGED



Population: 168,050\*

Area: 281 km<sup>2</sup>

Intersection of 2 motorways - M5, M43

Budapest airport - about 90 min.

Local airport - development plans

Easy access on railroad towards Budapest, Serbia, Romania

- Serbian-Romanian-Hungarian triple border, - one of the south-eastern gates of the EU
- Attractive location, advanced infrastructure and service sector, high level education, highly qualified labor force with foreign language skills for



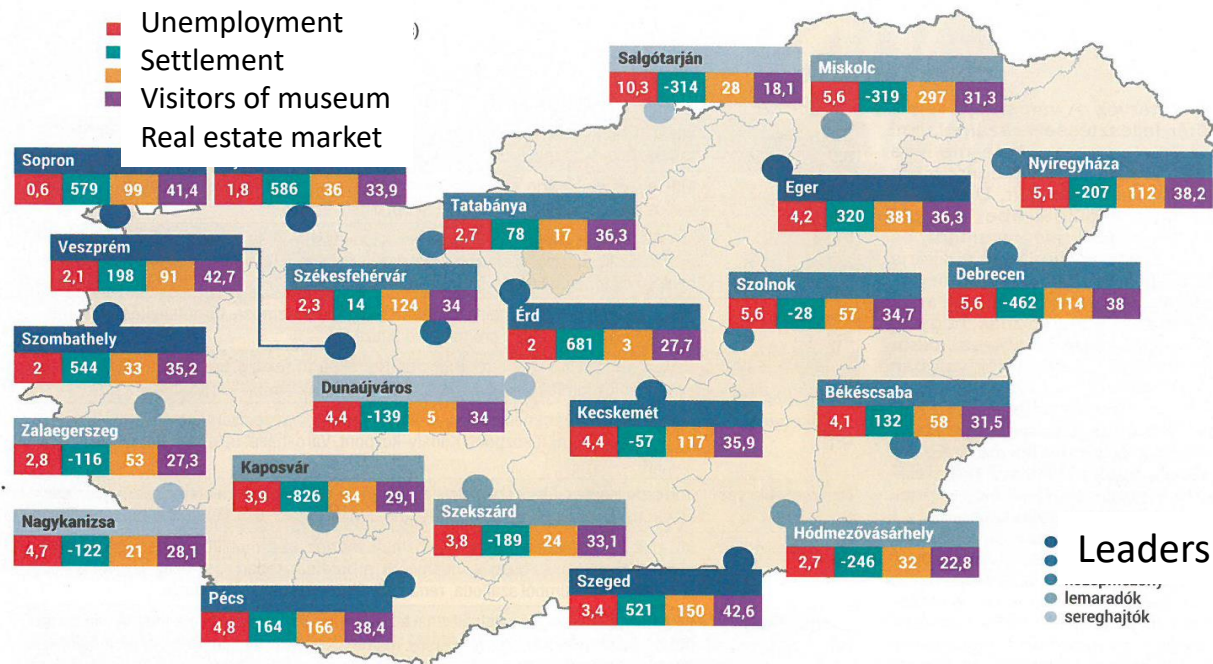
**knowledge-intensive**

# CITY OF SZEGED: TRANSPARENT GOVERNANCE

Szeged is one of the most transparent towns in Hungary.

- City development

- Unemployment
- Settlement
- Visitors of museum
- Real estate market



Szeged City - open-minded culture and a receptive community - 91% of the inhabitants (according to a survey) is opened toward international companies

Szeged is in the top 3 cities in terms of regional development among Hungarian county seats.

(Source: HVG weekly)

- Leaders
- lemaradók
- sereghajtók

# CITY OF SZEGED: SMART CITY DEVELOPMENTS



- bank card payment option - at public transport vehicles



- online-systems of City services (public catering + heat supply)



Free Zone

- Free Wi-Fi at public transport vehicles



- Creation of an integrated urban program- database

+ research project with university to analyze collected information



+ Among the few winners of the **EU's Urban Innovative Actions call**, in cooperation with local employers to enhance mobility for employees and support sustainable modes of transport

# Extreme light infrastructure (ELI) Attosecond Light Pulse Source (ALPS) project



Trans-European Cooperation  
Coordinated management and research facility  
Three laser facilities – one mission – different applications



The primary mission of the ELI-ALPS Szeged research facility is to make a wide range of ultrashort light sources accessible to the international scientific community user groups. Laser driven secondary sources emitting coherent extreme-ultraviolet (XUV) and x-ray radiation confined in attosecond pulses is a major research initiative of the infrastructure. The secondary purpose of the facility is to contribute to the necessary scientific and technological developments required for high peak intensity and high power lasers.

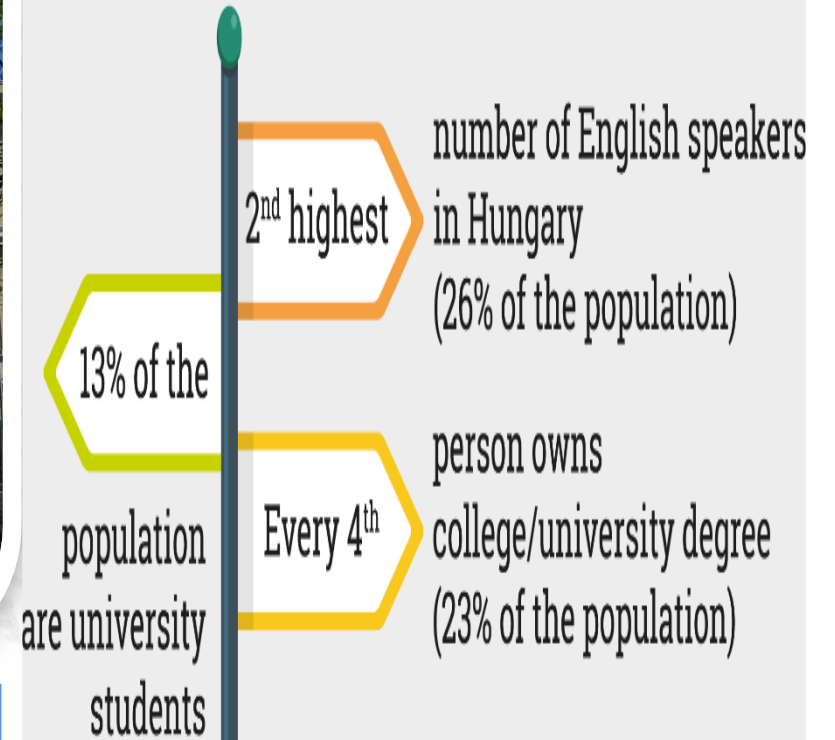


# SZEGED: CITY OF SCHOOLS



Number of children in preschools	Number of students in primary schools	Number of students in high schools	Number of students in vocational schools	Number of university students
5,041	12,174	4,332	7,691	20,706

## 2<sup>nd</sup> best educational indicators in Hungary

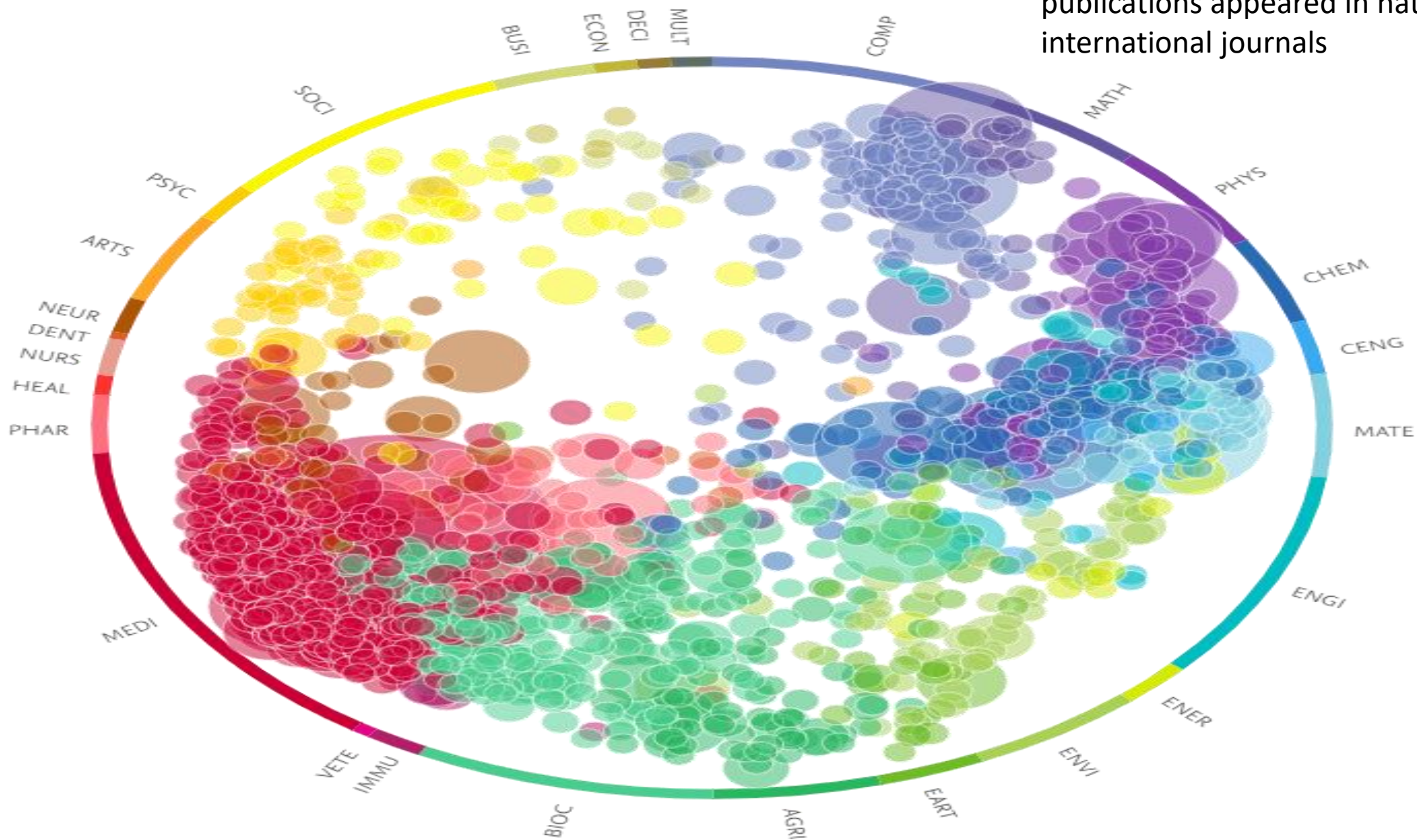




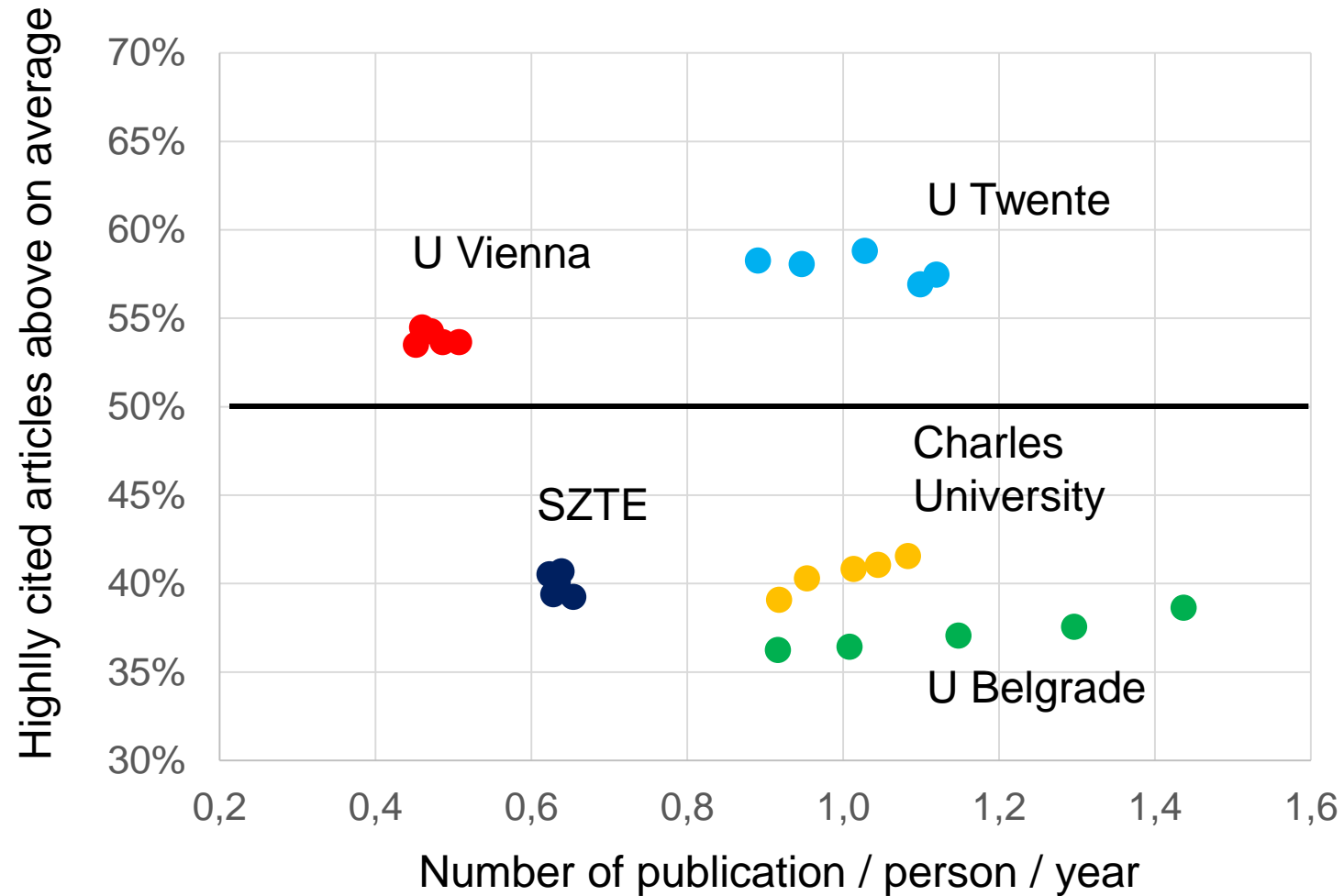
- Times Higher Education (THE) has announced its world ranking for the AY of 2018/2019. In the list of British specialist journals – similarly to last year – the University of Szeged is ranked among the 601–800th place.
- With this result, SZTE is the second best in the competition among Hungarian universities.
- The most powerful indicator of the University of Szeged is internationality, which includes the number of foreign teachers and students, as well as publications

# Publication structure of SZTE

the past 5 years, approximately 25,000 publications appeared in national and international journals



# Publication quality vs yearly number: place for improving



*Leiden ranking*

# UNIVERSITY OF SZEGED - RESEARCH UNIVERSITY OF NATIONAL EXCELLENCE

2,500 instructors and researchers are actively involved in national and international research projects

We have 19 Doctoral Schools

Since 2011 a significant number of research teams have been granted European Research Council support.

Among the Best 600 Universities of the World

Greenest Hungarian university

University with Nobel prize winning professor

Good and Excellent classifications

Klebelsberg Library:

- one of the „Most Amazing Libraries of the World”
- [bestmasters.com](http://bestmasters.com)



# THE NOBEL PRIZE ♦ I.



Outstanding professors have worked at the university, including the Nobel Laureate Albert Szent-Györgyi (1937), who was the first to isolate Vitamin C, extracting it from Szeged paprika

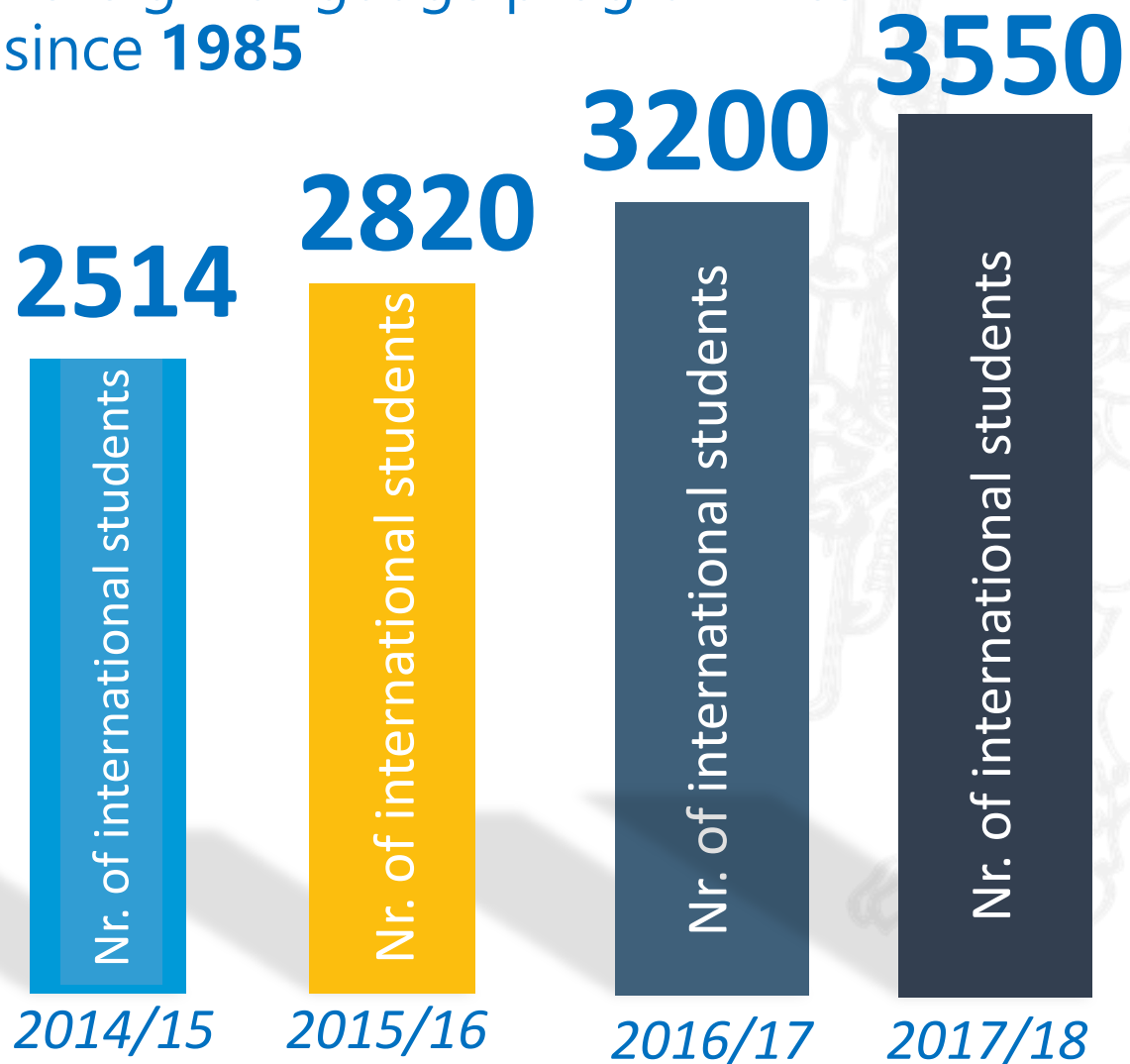


# ALBERT SZENT-GYÖRGYI'S EDUCATIONAL ACTIVITY AT THE UNIVERSITY



# University of Szeged - INTERNATIONAL RELATIONS

Foreign language programmes since **1985**



**80+** Bilateral agreements & MoUs  
in **40+** countries

**484** Erasmus+ partner-  
universities  
in **31** EU & eligible countries



Stipendium Hungaricum students with full scholarship

# SZTE Experience



I'm a Ph.D. student from Ghana. The Dom square is a magnificent landmark, and the surrounding buildings are excellent reference points of a branded city of natural beauty. I will recommend the university to because of the quality educational system for career development.



I'm from Ecuador and a Stipendium Hungaricum scholarship holder in my second year. I chose University of Szeged because of its highly ranked status in Hungary. I like the generosity of the people and the fantastic university facilities. The student environment is very relaxing, and you learn a lot from the cultural diversity.



Student from Faculty of Economics  
The University of Szeged is a well-known and internationally ranked institution in Hungary and worldwide. It is such a wonderful experience to study here. Instructors are professionals and well-qualified; students are nice and open towards foreign cultures.



# Research University

**19** Doctoral Schools – 110 PhD programmes, 19 PhD programs in English

**16** research groups supported by MTA (Hungarian Academy of Science)

**7** MTA Lendület research groups

**5** ERC research groups (StG, CoG, AdG)

## Primary Research Fields

- Neurobiology
- Preclinical pharmacology
- Pharmaceutical Chemistry
- Clinical Pharmacology
- Genetics
- Nanotechnology and Material Sciences
- Laser Physics
- Software Development
- Biotechnology and Environmental Technology
- Microbiology
- Agricultural sciences
- Dermatology
- Dentistry

# Research, Development & Innovation

**43** Patents

**16** Know-how

**102** Industrial partners

**22** strategic partners

**13** Licence agreements

**35** Contract/projects with industrial partners

**70** EU funded projects

**50** R&D agreements/ year

**3,5** MEur income/ year

**2** SZTE certification

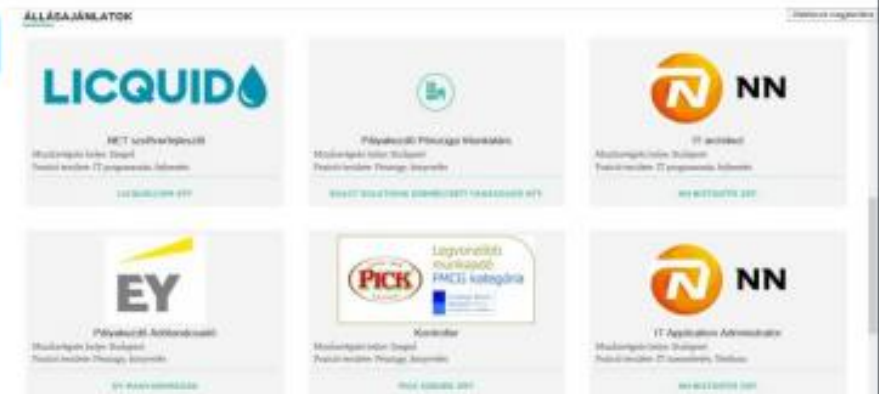


# SZTE Career Office

- organizes the **biggest career expo** in the region
- coordinates **internship** programmes
- connections with local and national **companies, labour agencies and NGOs**
- information regarding the **labour market**
- **advice** on writing competitive **CVs** and **motivational letters**



FRESH GRADUATES' POSITIONS BY GEOGRAPHIC REGIONS





# Innovation Day

- Distribution of Innovation Prizes
- Presentations on R+D+I

**SZTE** Technológia Transzfer

# SZTE INNOVÁCIÓS NAP

Ahol egyetemi kutatók és vállalati szakemberek vitathatják meg az innováció aktuális kérdéseit  
SZTE Rektori Hivatal, Díszterem | MÁJUS 30.

The banner features a blue and white color scheme with a background of molecular structures and a computer mouse. The text is in bold, sans-serif fonts.

# SZTE Alumni (SZTE ALMA)

- since 2005
- university and faculty level programs
- thousands of alumni joined the SZTE ALMA community



social media  
database development  
professional and leisure venues  
reunions and yearbooks

**JELENTKEZZ ELSŐ KÖRBEN SZEPTEMBER 22-IG!**

**szte alma mater alumni  
mentorprogram**

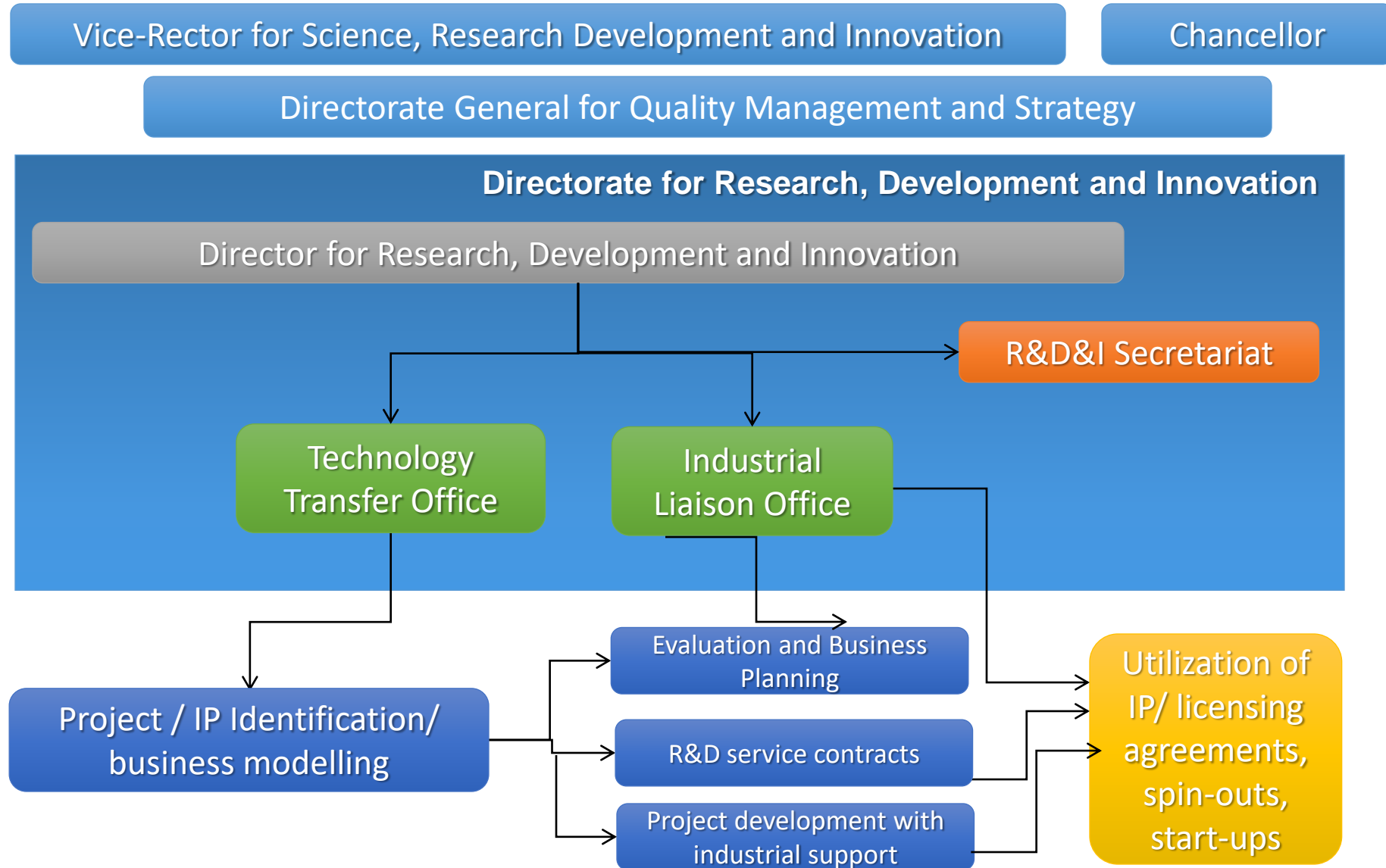
[WWW.SZTEALMAMATER.HU](http://WWW.SZTEALMAMATER.HU)



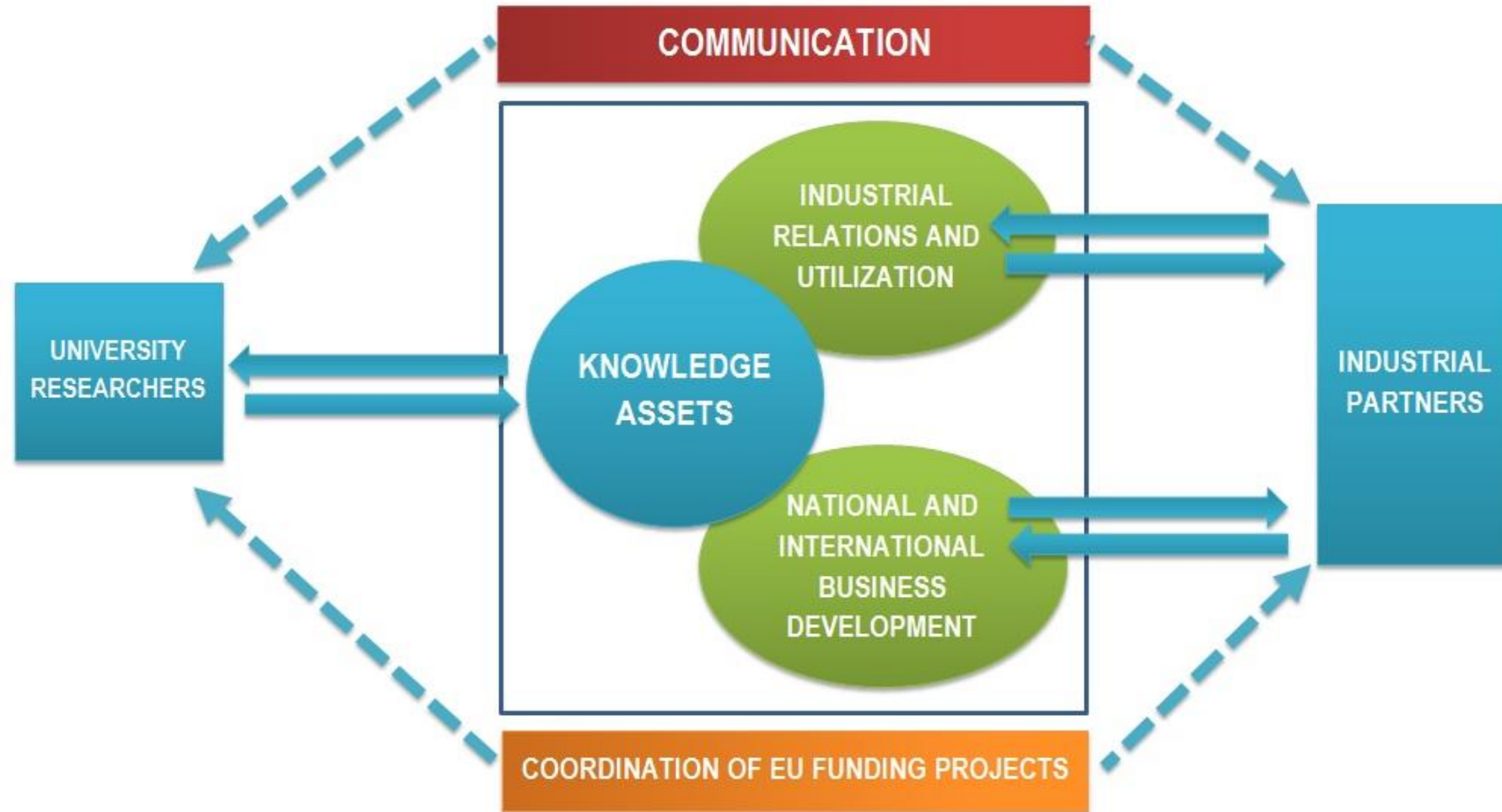
## Alumni Mentor Program

- 30-40 mentors
- 15-20 companies
- 40-50 mentorees

# Technology Transfer structure at the University of Szeged



# Technology Transfer structure at the University of Szeged: One –stop-shop for industry



# Our achievements

## SELLING

**Schmack** 

**VIESSMANN** Group

## OUTLICENSING

  
**HILASE**

 **Tonosoft**  
Orvostechnikai és Kutatás-Fejlesztési Kft.

**CE**  **Optics**

## UNIVERSITY-INDUSTRY COOPERATIONS





# Back to the Nobel prize

UNIVERSITAS SCIENTIARUM SZEGEDIENSIS  
UNIVERSITY OF SZEGED

## Szent-Györgyi Albert Competition

every year since 2012



high school students' competition

more than 40 student teams



Attract  
Mentor  
Retain



in Szeged  
in Hungary

high schools from Hungary and abroad

valuable prizes



# Back to the Nobel prize



## Szeged Scientists Academy

Since 2013

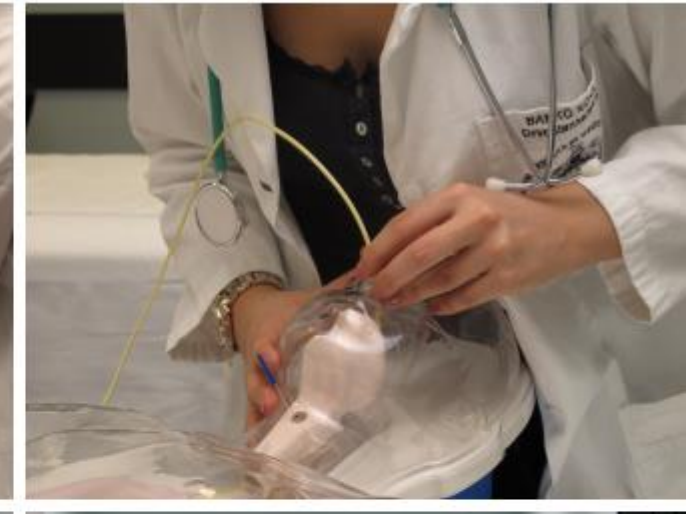
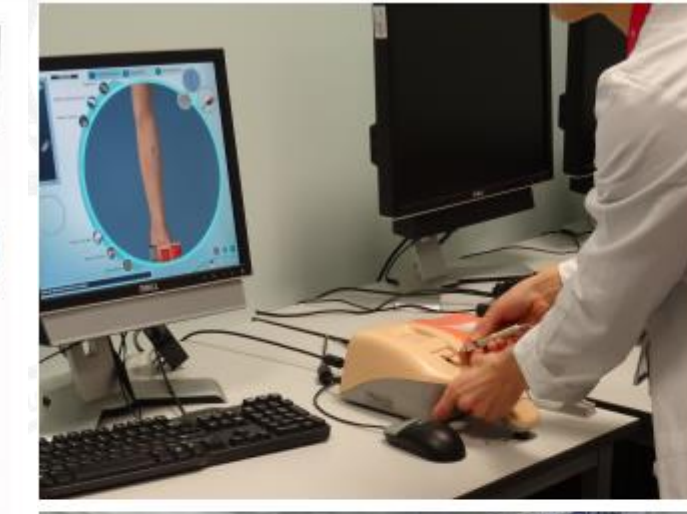
Dr. Bert Sakmann, Nobel Laureate physiologist – Director of Education

- Regional and national objectives
- *Meeting of Nobel Laureates and Talented Students*  
19 lectures by Nobel Laureates organized in Szeged
- *Secondary School Education program*  
talent management of biology and chemistry education  
Biology Lab - Radnóti Miklós Experimental Grammar School
- *University Education and Training*



# New innovation: Clinical Skill Centre

Offering the most Comprehensive Hands-On-Training for GI Procedures  
Fully wireless and tetherless with blood, fluids and power on-board  
High-performance and ultra-realism patient simulator



# International collaborations of the Faculty of Medicine



- International collaborations both in education and in research are playing a big role in the life of the Faculty of Medicine
  - Erasmus mobility (38 active Erasmus opportunities)
  - Professional exchange practice (annually 40-50 student travels the world, and the same number of students are received)
  - JPEMS -Joint Program for European Medical Studies (It is operated together with 7 Universities [Angers, Nantes, Naples, Amsterdam, Szeged, Timisoara, Cluj-Napoca])

# JPEMS – Joint Program for European Medical Studies

## JPEMS Joint Program for European Medical Studies

Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca

3rd September - 16th December 2018

[About](#)[for Students](#)[Subjects](#)[for Professors](#)[Life in Cluj](#)[past JPEMS](#)

JPEMS 2015 - Szeged  
Trip to lake Balaton

### Login Form

Username

Password

## Welcome

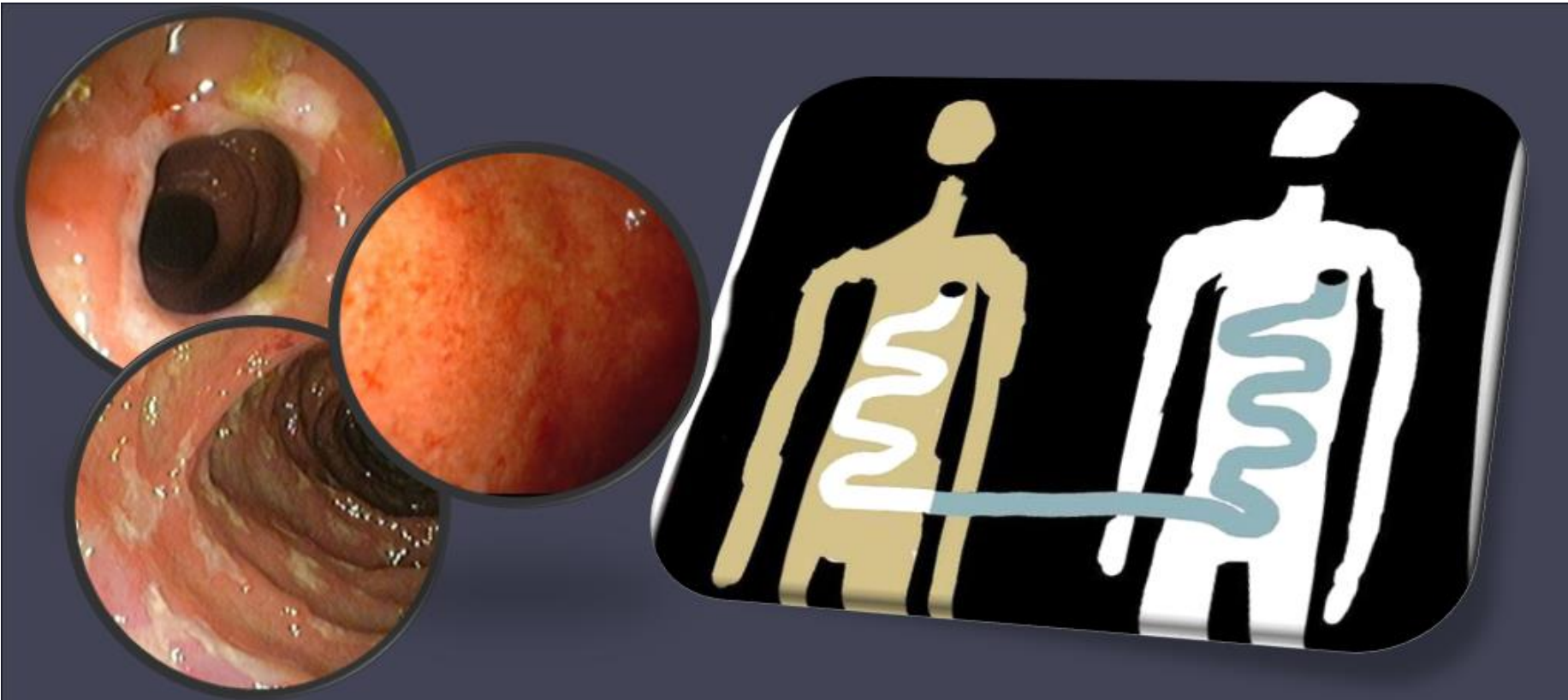
JPEMS - The unique experience of a **medical** curriculum in an **international context**.

After the successful implementation of the JPEMS by the University of Szeged (2015), the VUmc School of Medical Sciences of Amsterdam (2016), the University of Angers (2017), "**Iuliu Hatieganu**" **University of Medicine and Pharmacy Cluj-Napoca** is happy to welcome the medical program in 2018.

**Women in Science: we have five female clinicians who won L'Oreal Prize!**

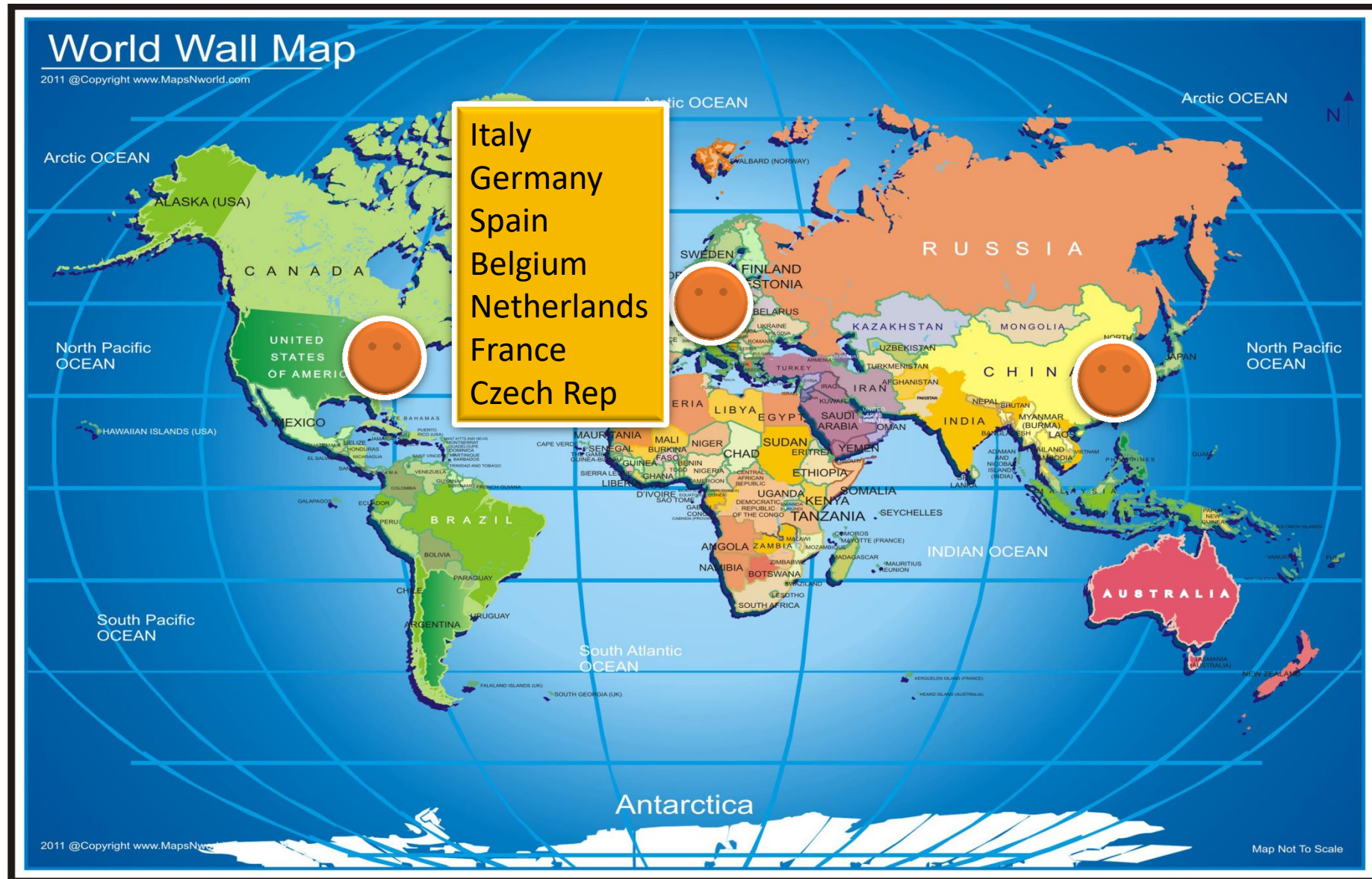


# New innovation of my working group



RESTORING THE GUT MICROBIOME FOR THE  
TREATMENT OF INFLAMMATORY BOWEL  
DISEASES

# Our scientific international collaborations





# Why choose the University of Szeged?



- The University of Szeged (SZTE) with a history dating back to 1581, is located in the sunniest city of Hungary attracting thousands of young people due to its lively, urban lifestyle and colourful festivals
- Since Hungary is a member of the European Higher Education Area (EHEA), it also has EU (and US!) accreditation
- It is a research university with outstanding achievements, covering 700 research areas at 19 Doctoral Schools and 50 full-time degree programs for international students
- Our student body grew to 21000, in which the number of international students exceeds 3500