

## Semmelweis University

- International, specialised medical university providing competitive diplomas in a student-oriented environment
  - Oldest medical university in Hungary (11,000 students, 28,7% international)
  - Six faculties: Dentistry, Health and Public Services, Health Sciences, Medicine, Pharmacy, András Pető Faculty, and School of Ph.D. Studies



- 27 clinics and nearly 8,000 employees
- A preeminent international biomedical research centre
  - 1,100 staff scientists in 140 active research teams



University	Rank*
Semmelweis University	401–500 <sup>th</sup>
Eötvös Loránd University	601-800 <sup>th</sup>
University of Pécs	601-800 <sup>th</sup>
University of Szeged	601-800 <sup>th</sup>
Budapest University of Technology and Economics	801- 1000 <sup>th</sup>



## Innovation Directorate – Our Mission

#### Our mission is to benefit the society through

- boosting, protecting and commercializing the university's discoveries and intellectual property,
- fostering entrepreneurial thinking and
- building a vibrant innovation ecosystem with external stakeholders.

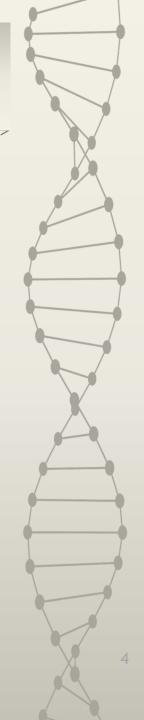


## Innovation Directorate – Main activities

- Intellectual property development
  - Technology evaluation
  - Researcher support
- IP rights
  - Classification of IP into rights classes
  - Helping with filing patents
- Technology transfer
  - Elaborating license agreements
  - Seeking for investors
- Grant management
  - National/international grants
  - Semmelweis Research and Innovation Fund
- Research collaborations



Semmelweis University Innovation Directorate



### Partners in research collaboration



























\* turbine

























VÁLLALKOZÁSFEJLESZTÉSI KÖZALAPÍTVÁNY











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#### Semmelweis Research and Innovation Fund

- HE Innovate Reviews- Hungary 2016 Key recommendations for higher education institutions:
  - "Introduce an "innovation fund" to promote transdisciplinary initiatives in education and research". (No 32)
- In response: Semmelweis Research and Innovation Fund (Summer 2017)

2017	Research & Development Projects	Innovation projects	Research equipment	Total
Number of applications to be funded (All applications)	28 (43)	10 (18)	16 (42)	55 (104)
Grant	172 283 309 Ft	97 643 473 Ft	129 752 771 Ft	394 678 553 Ft
	552 190 EUR	312 960 EUR	415 874 EUR	1 265 000 EUR

# Challenges & Solutions of Tech. Transfer

Challenge	Solution	
Limited awareness about IP rights	The TTO offers trainings/coaching/mentoring for the researchers to increase IP awareness and importance.	
"IP Leaks" – researchers take away inventions	The University holds the IP rights in every case and licensing it.	
Publication vs. patenting	Publications with IP potential must be submitted to the Patent Office before publication (to obtain a priority day)	
Sub-licensing without university control	The University holds reach-through rights	
IP evaluation and accounting errors	The TTO supports the accounting process and evaluates the technologies (inventions) before any transfer is done.	

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Semmelweis Innovation
Semmelweis University Innovation Directorate

## Successful Technology Transfer Models

Company separate from University

Decision-making competences allocated to a board



Department within University

 Decision-making competences allocated to operational level



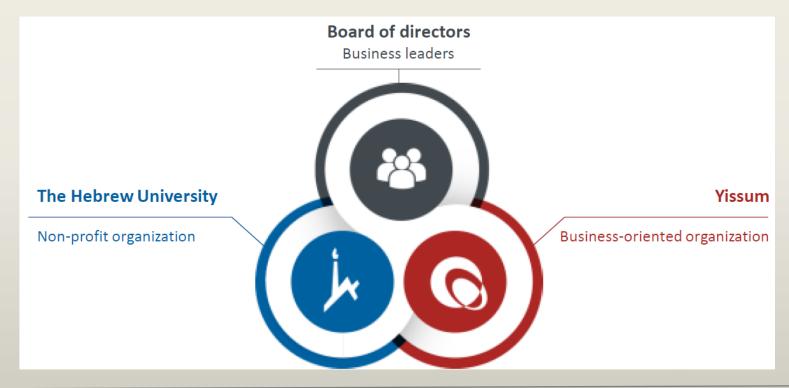
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## The Yissum model

- A profit oriented company, fully owned by the Hebrew University
- Exclusive owner of all University IP
- Serve as a **bridge** between academic world to the business world
- In total (53 years): 10 100 patents, 2850+ inventions, 900+ licenses, 120+ spin offs
- Products commercialized by Yissum generate today over \$2 Billion in annual sales

## The Yissum model

Board of directors appointed by University
 (Only 3 University member out of 15, more business leaders)



## The Leuven model

- Reuters ranks KU Leuven as Europe's most innovative university in its top 100 innovative European universities list (2016 and 2017)
- 525 active patent families in portfolio, 122 million euro license-income
- High level of budgetary and HR autonomy: 'Business Unit'
  - Investment and financial decisions are made at the directorate
- Bridge between university, industry and society
- Close interaction and collaboration between different units
- Regional and international networking

## The Leuven model

#### Central multidisciplinary staff

Management (2)

Research collaboration (25)

- advice
- contract R&D
- projects with government support (AIO, EC, etc.)

Intellectual property rights (10)

- intellectual property rights
- licensing

Spin-off & innovation (12)

- spin-off creationgrowth
- networks & regional dev.
- KU Leuven Association

Finance, HR & logistics (45)

- financial administration
- HRM administration



Question: Which model to implement?

# Thank you for your attention!

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