



MASARYK UNIVERSITY



Technology Transfer Opportunities in South Moravian Region, Czech Republic

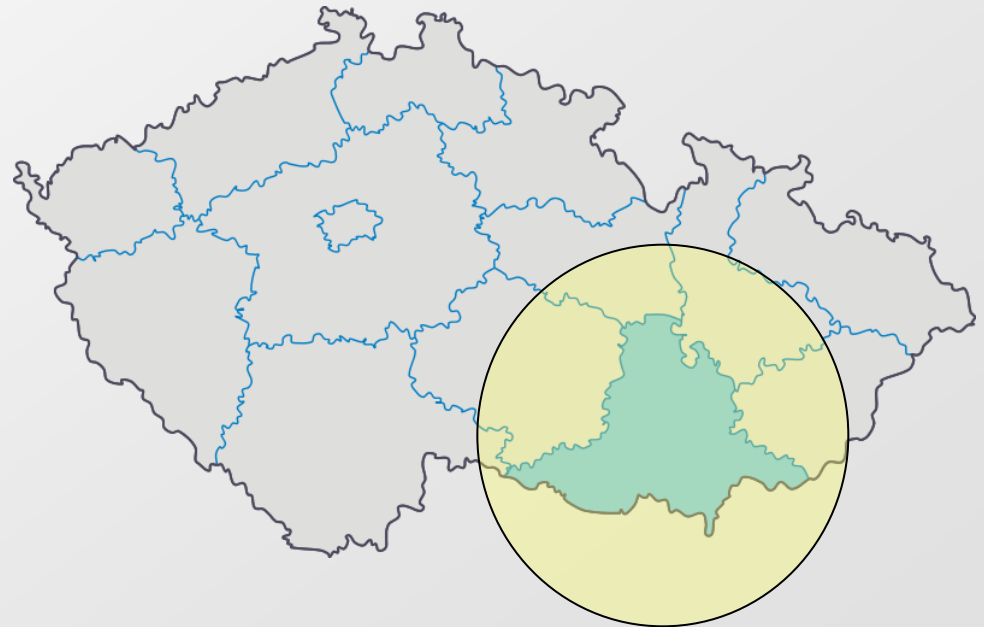
Bratislava, October 11, 2011

Eva Janoušková

Where we come from?

Czech Republic, South Moravian region
City of Brno

second largest city
400,000 inhabitants
80,000+ students
3,000+ Ph.D. students
10,000+ researchers
200+ companies with
R&D function in-house



Brno – „Central Europe’s most central city”

Prague	- 2 hrs 40 min
Vienna	- 1 hr 40 min
Budapest	- 3 hrs 55 min
Bratislava	- 1 hr 40 min
Krakow	- 6 hrs
Wroclaw	- 5 hrs 30 min



Regional Innovation System

Universities

- 4 major universities
- 2 TTO 's (Masaryk University, Brno University of Technology)

Public sector

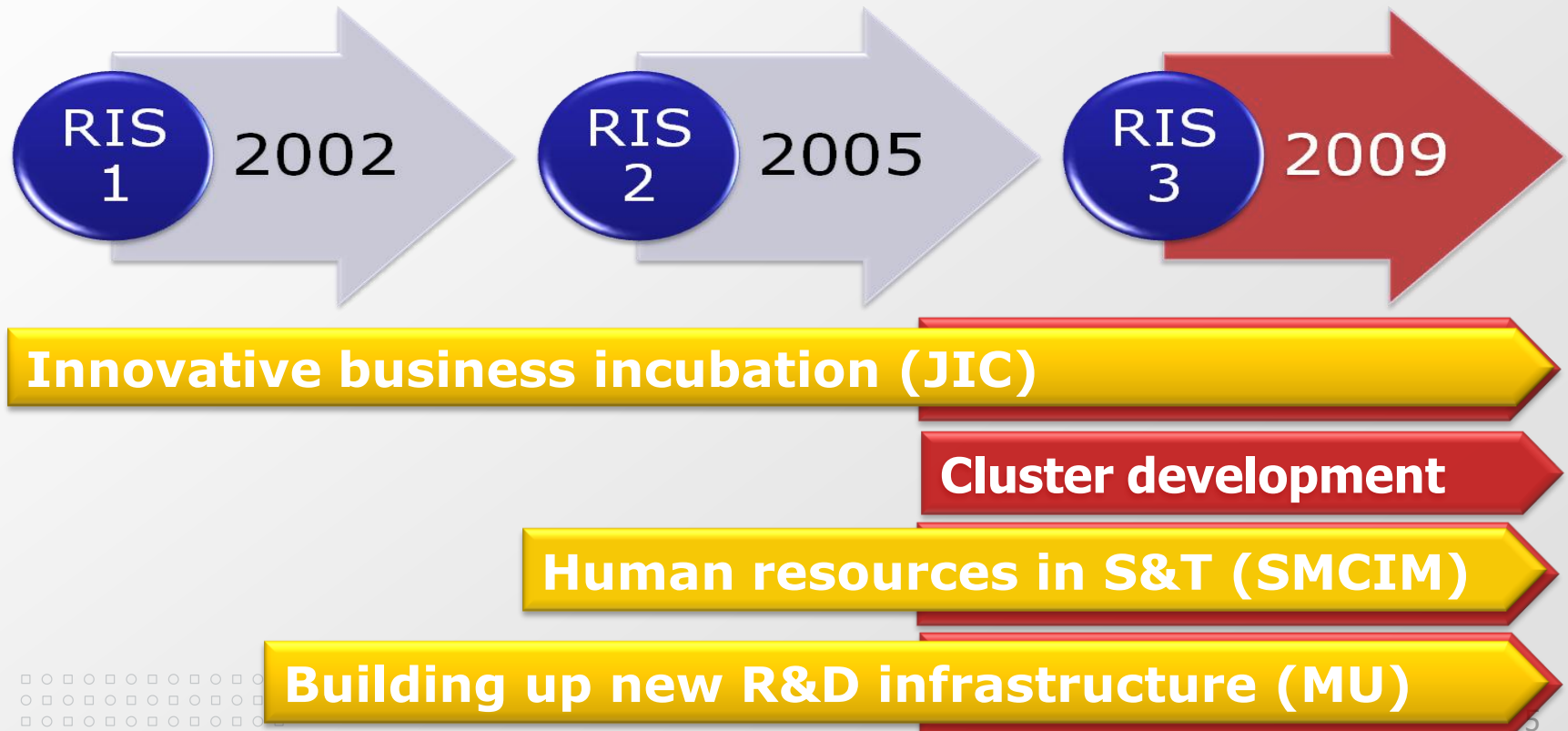
- South Moravian Region
- City of Brno
- JIC
- South Moravian Centre for International Mobility

Companies

- IT
- Mechanical Engineering
- Electrical Engineering
- Life-Sciences

Regional Innovation Strategy (RIS)

- Instrument to support local knowledge based economy
- Strategic focus of RIS:



South Moravian Innovation Centre (JIC)

➤ JIC is an interest group of 6 legal entities:

➤ South Moravian Region

➤ City of Brno

➤ Masaryk University

➤ Brno University of Technology

➤ Mendel University in Brno

➤ University of Veterinary and Pharmaceutical Sciences
Brno



Technology transfer

- Regional Technology Transfer Network (TT Point):
 - network of 4 universities and JIC
 - coordination of TT activities at the regional level (JIC) + TTO's at 2 universities + new TTO of Mendelu
 - creation of specialized TT unit at JIC
 - first class education for TT specialists
- Innovation Voucher Scheme
 - active financial support for cooperation between universities and SME's

Technology Transfer Office of Masaryk University

- ❏ was established in 2005 **to support the collaboration** of the scientific community of MU with the industry and to **boost the transfer** of research results into practise
- ❏ **First contact point** - „One stop shop“ for commercial partners in initiating collaboration, creation of long-term partnerships, promotion of IP created by researchers at the MU
- ❏ **Interface** - direct collaboration with other partners in the region (and beyond) in the field of innovation (JIC/South Moravian Innovation Centre, RDA, CEITEC Cluster – life science, bio and bioinformatics companies active in the region, CzechInvest, national ministries...)

Technology Transfer Office - What We Do

☒ Internal technology transfer services

☒ IP protection

- ☒ Consultancy concerning emerging IP with the individual researchers
- ☒ Basic assessment of the IP protection for individual inventions
- ☒ Administration of patenting and other forms of IP protection

☒ IP consultancy (related to projects)

- ☒ IP issues check and consultancy during preparation and management of projects and similar activities
- ☒ Standard legal support (NDA's, MTA's etc.)

☒ Internal TT conditions maintenance

- ☒ Methodological leadership in TT issues within MU, check of the general legislation in relation to MU sublaws in the TT area

Technology Transfer Office - What We Do

❖ **Business development**

❖ Marketing and licensing

- ❖ Identification of licensing opportunities
- ❖ Marketing available technologies and know-how at MU

❖ Spin-offs and incubation

- ❖ Consultancy concerning the commercialization via new company - emerging spin-offs
- ❖ Cooperation with JIC on their incubation agenda

❖ Contract management

- ❖ Maintenance of running contracts related to know-how, licensed IP and further related issues

Technology Transfer Office - What We Do

❏ **Creating opportunities**

❏ Educational and training activities

- ❏ Regular teaching offered to students at MU (Research and Development in practice)
- ❏ Trainings focused on managerial and TT issues

❏ Partner matching, workshops etc.

- ❏ Special meetings devoted to networking (business breakfasts, special workshops and presentations etc.)

❏ Public relation (TT publicity, exhibitions etc.)

- ❏ Newsletter INTERFACE and web portal of TTO
- ❏ Fairs and exhibitions
- ❏ Thematic cooperation with the PR office at MU

Technology Transfer Office - Main Activities

☒ IPR protection

- ☒ IP identification, evaluation, patenting, marketing of IP
- ☒ TTO supported significant increase in new patent applications at MU – from almost zero patents in the past to 4 – 10 new applications per year

☒ Spin-off support

- ☒ MU has a flexible system in commercializing through spin-off. Inventors can decide to establish company with a share of MU or they can just licence (or buy) the IP from the MU.
- ☒ There is a number of „non official“ spin offs established before TTO MU started and introduced an active spin-off support policy - change of attitude is key!
- ☒ TTO supported 5 new spin-offs during 2006 and 2008, 3 spin-offs are in establishing proces in 2011.

Examples of spin-offs

➤ **Enantis, s.r.o.**

- active in the field of protein engineering, based on licence to international patent (decomposition of yperit). Company established by researchers, no share of the MU.

➤ **INVEA-TECH, a.s.**

- in the field of programable hardware for high-speed network security; established jointly with BUT, CESNET and a private investor UNIS. It is one of first examples when university owns shares in spin-off.

Technology Transfer Office - Main Activities

☒ **Training**

- ☒ A serie of trainings for researchers and students focused on IPR, academic entrepreneurship, fundraising, ...
- ☒ In 2008 regular credited subject for MU students was launched

☒ **Promotion of research results**

- ☒ At national and international trade fairs - HOSPIMedica, ProFintech, BIOsquare (Switzerland), BIO (US), ...
- ☒ Through our TT magazine INTERFACE, ...

☒ **Contract research, commercial services**

☒ **Licensing**

Main partners in the region

South Moravian Innovation Center

**INBIT
MU**

**TI
BUT**

TTO

Brno
University of
Technology

TTO

Masaryk
University

University
of
Defence

University of
Veterinary and
Pharmaceutical
Sciences Brno

Mendel
University
in Brno

15
Institutes
of AS CR

Masaryk University - quick facts

- established in 1919
- the second biggest public university in the Czech Republic
- essential priority - scientific research
- leading positions in the competitions for research projects
- support of innovation and science
- 9 faculties
- more than 200 departments, institutes and clinics
- 4867 personnel, out of which 2155 are academic staff

Students at MU - total of 42,478 (as of 15. 8. 2011)

	Students (Bc + Ma + PhD)	PhD students
Faculty of Law	4607	175
Faculty of Medicine	4783	732
Faculty of Science	4679	910
Faculty of Arts	10628	695
Faculty of Education	5732	150
Faculty of Economics and Administration	4389	145
Faculty of Sports	1363	77
Faculty of Informatics	2461	266
Faculty of Social Studies	3836	236

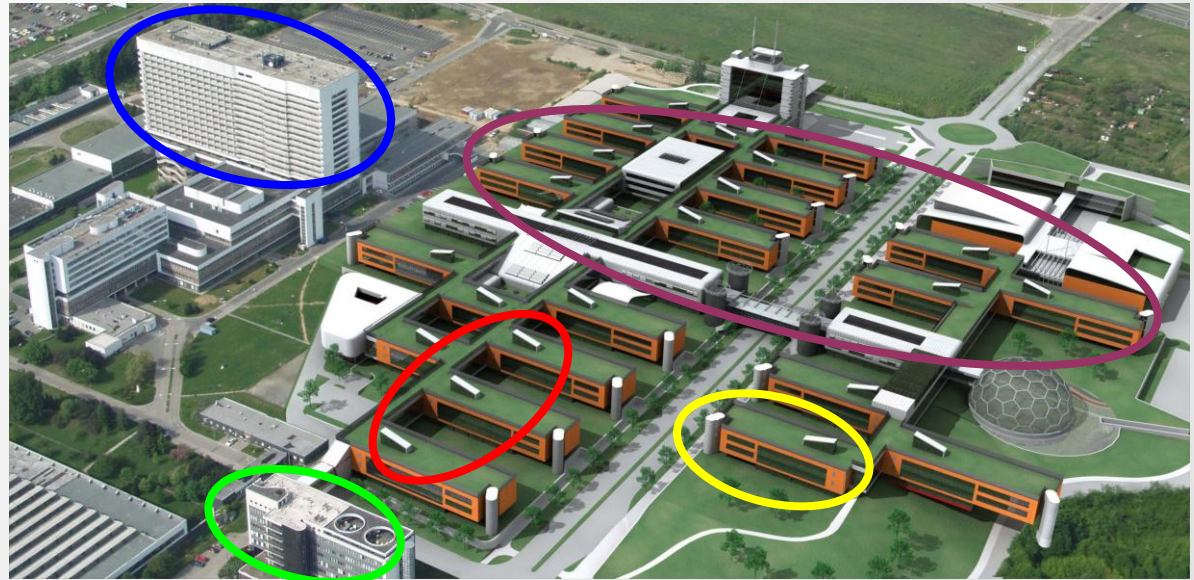
The new Life Science Campus

- ❖ Campus worth about 200 mil Euro, built in 2002-2010 (about 70.000 m², 1000 PhD students)
- ❖ Includes Incubator for Biomedical Technologies
- ❖ Several large Research Hospitals in close proximity
- ❖ Commercial part in close relation to Masaryk University



Life Science Campus

- The Faculty Hospital Brno - large teaching and research hospital
- MORFO includes Anatomy, Microscopy Center, Biophysics, Biostatistics, in use already
- ILBIT (Integrated Labs for Biomedical Technologies) - full operate from fall 2005

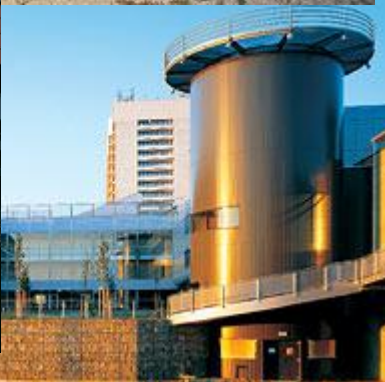


- INBIT (Incubator for Biomedical Technologies) – full operate from fall 2008
- Academic Research and Education Area



MASARYK UNIVERSITY

www.muni.cz





BRNO REGIONAL
TEACHING HOSPITAL

MASARYK
UNIVERSITY

SVRATKA RIVER
PARK

Campus
Residences

Campus Square

UNIVERSITY
SPORTS
FACILITIES

NETROUFALÝ STREET
PUBLIC TRANSPORT
HUB

KAMENICE STREET

CAMPUS SCIENCE
PARK

STATE ARCHIVES

PURPOSE-BUILT
ACCESS ROAD

AKADEMICKÁ STREET

JIHLAVSKÁ
STREET

NOVÝ LISKOVEC

Examples of strong research fields

- Molecular biology, genetics, biomedicine
- Stem cell research
- Biomolecular research, bioinformatics, modelling and imaging of molecular structure
- Biostatistics, computational biology and chemistry
- Neuro-sciences
- Oncology
- Cardiovascular diseases
- Sustainable environment, environmental chemistry and ecotoxicology
- Ultra-thin nano-structured layers for optics and electronics
- IT security
- Image processing and recognition
- Supercomputing

Technologies for Licensing

- ❏ **Masaryk University offers number of technologies for licensing or for other type of commercial use. Currently we are looping for an investor or licensee for:**
- ❏ Products of enzyme engineering: Enzymes for industrial scale biosynthesis (pharmaceuticals, food additives, cosmetics)
- ❏ Enzymatic decontamination of sulphur mustard
- ❏ Plasma technologies with wide range of applications (for example in medicine, material engineering, glass and ceramic industry, automotive industry)
- ❏ Regulation of plant biomass creation, DNA sequences and their preparative method...

New Regional R&D Projects

- ❏ **Central European Institute of Technology (CEITEC)**
- ❏ a project of the **European Centre of Excellence** which is being prepared by a consortium of Brno's main universities and research institutes
- ❏ 200 M € from Structural Funds EU
- ❏ Cell and molecular bioscience
- ❏ Advanced materials/technologies
- ❏ Right in the centre of Central Europe



central european institute of technology
BRNO | CZECH REPUBLIC

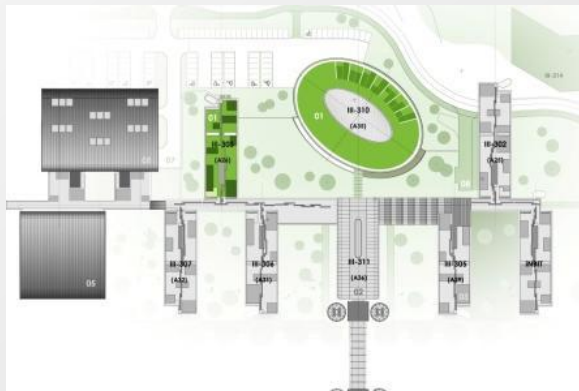


New Regional R&D Projects



central european institute of technology
BRNO | CZECH REPUBLIC

- CEITEC will provide a state-of-the-art infrastructure, encourage cooperation of both local and foreign scientists and support scientific excellence
- CEITEC will enhance cooperation with the application sector and stimulate growth of high-tech sectors

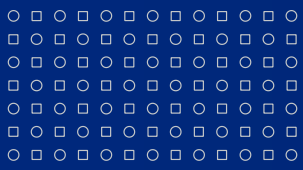


New Regional R&D Projects

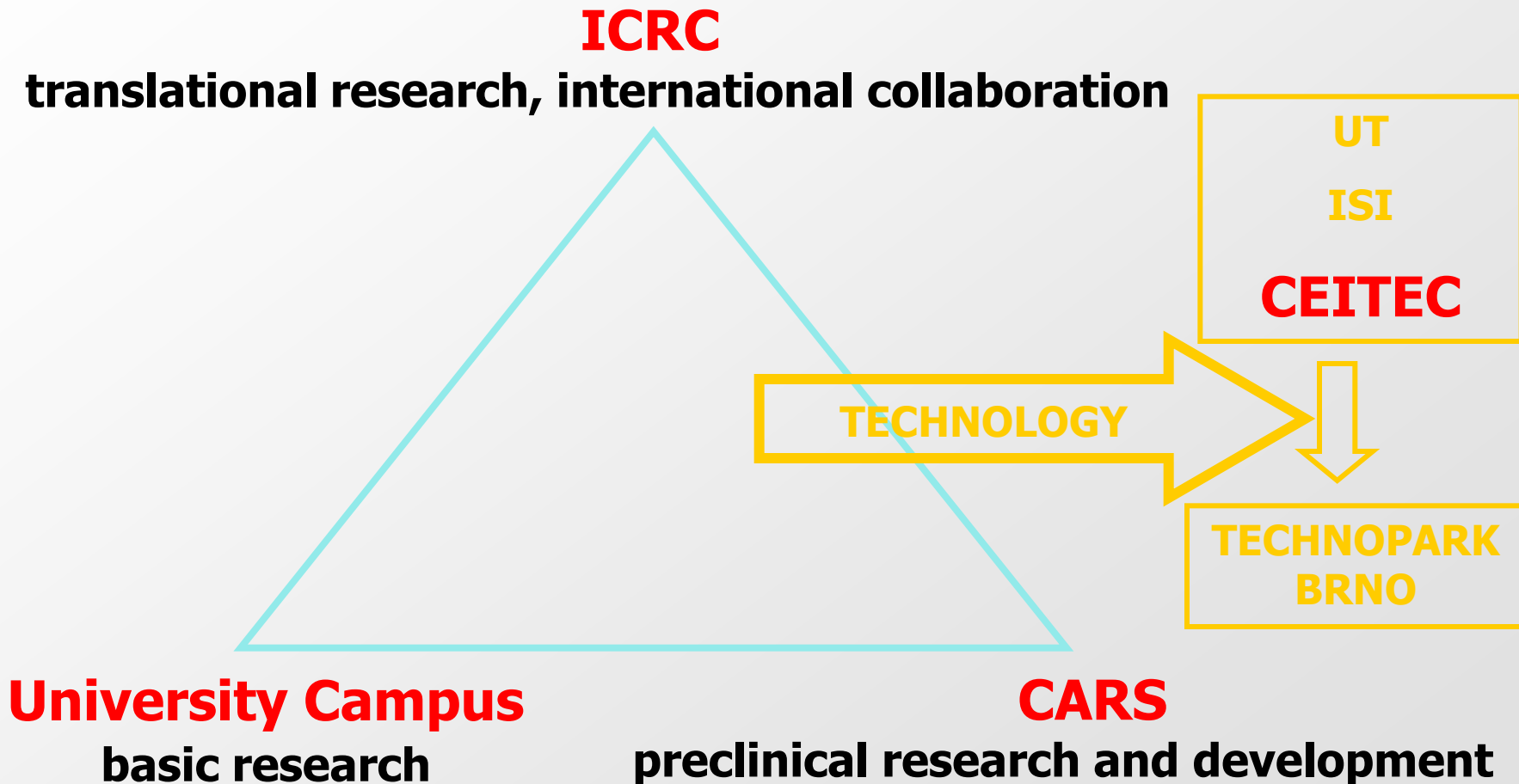
International Clinical Research Center (**ICRC**)



- by Saint Annes' University Hospital with close cooperation with Mayo Clinic (US), located in Brno
- 100 M € financed by national funds
- Key directions of research:
 - **Prevention and early detection** of cardiovascular, oncological and neurovascular diseases
 - Development of novel diagnostic and therapeutic strategies and technologies for **targeted and individualised treatment** of cardiovascular, oncological and neurovascular diseases
- Cooperation with Cardiovascular Animal Research Center (**CARS**) - University of Veterinary and Pharmaceutical Sciences in Brno)



Brno Biotech Partnership Synergy



Thank you for your attention

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