# Transfera **2**



# **OVERVIEW OF TECHNOLOGY**

**TRANSFER OFFICES** 

AND OTHER MEMBERS

OF TRANSFERA.CZ

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Dear readers,

You are holding in your hands the second edition of the Transfera.cz handbook which brings a comprehensive overview of all its members. In addition to the technology transfer offices in the Czech Republic, it newly introduces also other associated members of Transfera.cz, who fully participate in its activities. We believe this is an important and representative overview of the Czech transfer community.

In comparison with the first edition of this handbook (October

2016), the information on the individual organizations was updated with expert profiles and fields of expertise; for most subjects, the performance indicators for the year 2016 were added as well, which have been fulfilled or, to a varying degree, contributed to by the technology transfer offices (in cases the data were not available at the time of the publication of this brochure, they are replaced by N/A).

The Transfera.cz platform which, in its current form, has been in operation for three years, still places strong emphasis on advancing technology and knowledge transfer, improving the conditions under which transfer-related activities are carried out and creating opportunities for cooperation and professional growth in the given field for each and every subject that wants to draw on its functional and stable background. At the same time, the association strives to connect with and gain experience from other institutions both in and outside Europe.

We believe that this updated and enhanced brochure will help to strengthen and improve the connection between academic/research institutions and private companies/public administration, as well as between the individual technology transfer offices.

RNDr. Eva Janouškovcová, Ph.D., LL.M.

Transfera.cz Chairwoman

# **TRANSFERA.CZ TECHNOLOGY TRANSFER OFFICES**





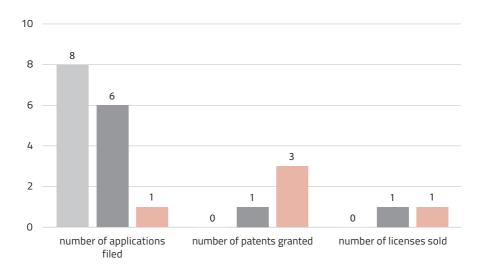
# Biology Centre of the Czech Academy of Sciences, Department of Technology Transfer

The Department of Technology Transfer (DTT) was founded in 2012 within the JCTT project. DTT's vision is to provide continuous support of transfer of R&D results to the private sector. DTT's mission is to initiate and implement long-term cooperation between the academic and private sectors, to provide legal protection for the Biology Centre of the Czech Academy of Sciences (BCAV), offer professional services to the scientists at BCAV and commercialize R&D results. The department provides mainly the following services:

- Protection and administration of intellectual property at BCAV
- Support of implementation of applied research projects
- Complex administration of commercialization of R&D results at BCAV
- Connecting research teams with the industry
- Administrative and legal services for the researchers at BCAV

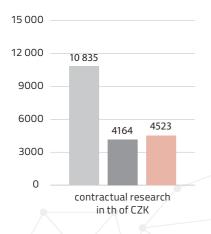
The Biology Centre of the Czech Academy of Sciences is a public research institution founded in 2006 by the Czech Academy of Sciences. It is an association of five originally independent institutes (Institute of Entomology, Hydrobiology, Parasitology, Plant Molecular Biology and Soil Biology) and a service centre providing administrative and technical services. Since 2016, the Biology Centre has been running the SoWa Research Infrastructure which focuses on complex research of soil and water ecosystems. Nowadays, the Biology Centre with its 600 employees is the largest institution of the Czech Academy of Sciences outside Prague. At the same time, it is one of the largest scientific institutions in Europe focusing on environmental research.

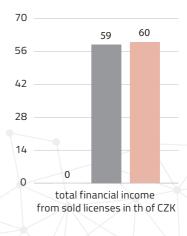
Full Name	Department of Technology Transfer	
Parent Institution/s	Biology Centre of the Czech Academy of Sciences	
Manager	Ing. Petr Maršík e-mail: <u>petr.marsik@bc.cas.cz</u> tel.: +420 777 468 681   +420 387 775 060	
Contact Address	Branišovská 1160/31 370 05 České Budějovice	
Website	www.bc.cas.cz	
Year of Establishment	2012	
Number of Employees (FTE)	5.64	
Number of Employees of the Parent Institution (FTE)	In total 579 Scientific 317 Administrative 262	
Member of Transfera.cz since	2017	
Type of Membership	Associated member	
Main Areas of Expertise	Biology and environmental biology Entomology Hydrobiology Molecular plant biology Parasitology Soil biology	



2014 2015

2016





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

- **Met Mapper** a software tool for high-precision measuring of metabolites and small molecules connected to a growing cloud database of profiles of specific metabolites.
- **METABO-AUTO** robotic device for automated processing of biological samples.
- TOXI-AUTO robotic device for BSL-3 which allows fully automated processing of biological samples of various types for the analysis of exogenous and endogenous bioactive substances, including the toxic ones.
- Production of ticks clean, with no pathogens (SPF) or infected with specific pathogens the breeding device at the Biology Centre can produce eggs, larvae, nymphs and adult males or females of the following species: Ixodes Ricinus, Ixodes Scapularis, Ixodes Hexagonus, Dermacentor Marginatus, Dermacentor Reticulatus, Rhipicephalus Aappendiculatus, Rhipicephalus Pulchellus, Hyalomma Aegypticum and Ornithodoros Moubata.
- **Device for collection of sediment samples** a device for collecting samples of sediments, especially from the bottoms of water bodies.
- Know-how of NGS diagnostics of plant viruses, viroids and phytoplasmas methodology.
- **Device for remote monitoring of aquatic animals** a device for remote monitoring of aquatic animals by means of an echo sounding device with at least one transmitter.
- Method of finding actinomyces which can potentially produce bioactive substances with the C5N unit.
- Device for fish stock sampling
- Utilization of acyclic nucleoside phosphonate, tenofovir, to eliminate plant ssDNA viruses
- Modified capsid protein (and its code sequence) to induce resistance against nepoviruses in grapevine
- Development of functional anti-parasitical food for fish farming of salmonids
- Development of a diagnostic kit for the monitoring of the preclinical phase of American Foulbrood
- Device for finding and releasing fishing nets
- Device for aerodynamic testing of very small objects
- Bee forage



# Transport Research Centre, Centre of Technology Transfer

The TT centre aims to build a functional Technology Transfer Centre within the Transport Research Centre. It focuses on the commercialization of research results in the field of transport and all related issues. The main purpose is to create opportunities and conditions for establishing collaboration with potential research partners according to their needs and to develop expertise in the field of commercialization and protection of intellectual property.

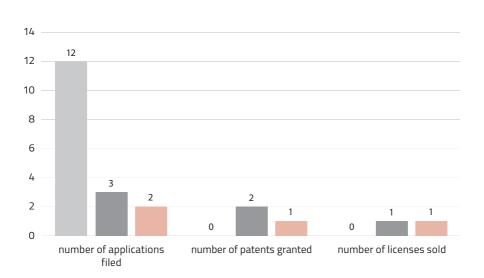
The Transport Research Centre (CDV) is the only public scientific research institution under the Ministry of Transport. Through its research focus the centre covers the key needs of transport development in the Czech Republic at national, regional and local levels. The institute covers traditional fields, such as road safety; construction technology; maintenance, repairs and reconstruction of transport infrastructure, including geotechnical aspects and diagnostics of transport structures; impacts of transport on the environment; transport economy; multimodal transport; traffic psychology; traffic education; traffic demand modelling; management systems, geographic information systems; check-in and parking systems, telematic controlling systems, etc. CDV was established in 2007 as a successor to the Czech departments of Transport Research Institute in Žilina.

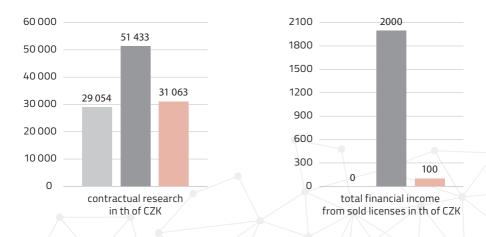


Full Name	Centre of Technology Transfer
Parent Institution/s	Transport Research Centre,
Manager	Ing. Jiří Jedlička e-mail: <u>jiri.jedlicka@cdv.cz</u> tel.: +420 721 222 994   +420 541 641 301
Contact Address	Líšeňská 33a 636 00 Brno
Website	www.cdv.cz
Year of Establishment	2017
Number of Employees (FTE)	4
Number of Employees of the Parent Institution (FTE)	In total 180 Scientific 119 Administrative 61
Member of Transfera.cz since	2017
Type of Membership	Associated member
Main Areas of Expertise	Municipal, regional and transportation planning Pollution and air quality control Land transportation systems and equipment Environmental effects on human health Sensors, detectors, measuring and regulations

# MEMBERSHIP IN OTHER ORGANIZATIONS

ECTRI|FEHRL|FERSI|POLIS|ICTCT





2016

2014 2015

#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

### Effective transport and its planning

- Integrated urban transport planning for sustainable mobility
- Microsimulation transport models
- Macroscopic models
- Complex spatial modal transport (surveys, prediction models, proposals for measures and their verification)
- Traffic surveys and ADR

# Monitoring and assessment of the environmental burden of transport including possible health risks.

- Determination and evaluation of selected indicators of environmental load, including their trends
- Processing and preparation of chemical and toxicological analyses and subsequent qualitative and quantitative determination of a wide range of organic and inorganic substances including their trace and ultra-trace concentrations
- ITS traffic management and traffic calming systems, traffic management with intelligent parking systems. Concepts and Smart cities programs including feasibility studies and design of suitable technologies and sensors

# Accredited laboratories of traffic signs and traffic accidents

Testing the optical properties of vertical traffic signs and road markings, roughness/skid resistance of the road surface and road marking and measuring the dimensions of vehicles.

# Accredited laboratory of transport infrastructure and the environment

Testing of fresh and hardened concrete including boring and nondestructive testing, gravel testing of aggregates, hardened mortars, strength of screed materials; we measure road inequality; we perform geotechnical laboratory and field tests for road construction including load tests, traffic noise measurement, determination of concentrations of limited pollutants in ambient air), ecotoxicological tests.



# Czech University of Life Sciences Prague, Innovation and Technology Transfer Centre

CITT was established in 2012 and is engaged in supporting cooperation between the university and the business sector with the aim of linking the research and technological potential of the university with the needs of the business sector, thereby helping to commercialize the results of the scientific research activities of the university.

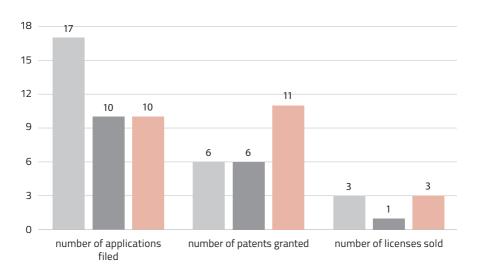
CITT has its representatives in all of the faculties and institutes of CULS that are closely connected to individual industry–specific research teams or individuals, and they act as information and distribution channels within the university. CITT thus has an updated overview of on–going scientific research activities across the entire university.

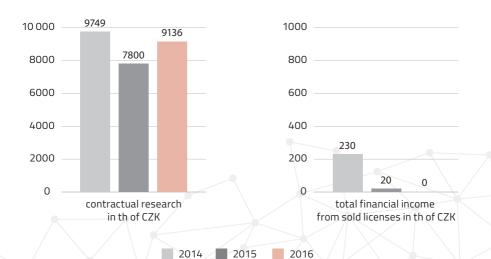
Czech University of Life Sciences Prague (CULS) reflects on a long tradition of more than hundred years. Now CULS is the third largest university in Prague. Study programmes and scientific research at CULS focus on agriculture, forestry, ecology, water management, geosciences, alternative sources of energy, agricultural technology, engineering, as well the prised area of modern economics and business management. Our laboratories are equipped with state of the art scientific instruments, enabling our students to take part in scientific projects in the Czech Republic, in the European Union (e.g. Horizon 2020), as well as in Asia and in Africa. Since 2007 CULS is a member of the prestigious Euroleague for Life Sciences. In 2016, the Times Higher Education Rating Agency (THE), assessed our university as the seventh best university in the Czech Republic.

Full Name	Innovation and Technology Transfer Centre (CITT)
Parent Institution/s	Czech University of Life Sciences Prague
Manager	Ing. Gabriela Jirátová e-mail: <u>jiratova@rektorat.czu.cz</u> tel.: +420 224 382 408
Contact Address	Kamýcká 129 165 21 Praha - Suchdol
Website	www.citt.czu.cz
Year of Establishment	2012
Number of Employees (FTE)	6
Number of Employees of the Parent Institution (FTE)	In total 1544 Scientific 720 Administrative 824
Member of Transfera.cz since	2014
Type of Membership	Associated member
Main Areas of Expertise	Agricultural economy Agricultural machinery and buildings Information science Plant cultivation, rotation of crops Forestry Food-processing Livestock breeding/farming Microbiology, virology

MEMBERSHIP IN OTHER ORGANIZATIONS

CESNET







# Czech Technical University in Prague, Department of Project Management and Technology Transfer

Technology Transfer together with teaching and research are the pillars of Czech Technical University in Prague (CTU). A team of professionals and patent representatives of the Department of Project Management and Technology Transfer is in charge of the technology transfer at CTU. The department provides support and services to CTU's employees and students during the process of commercialization of their solutions:

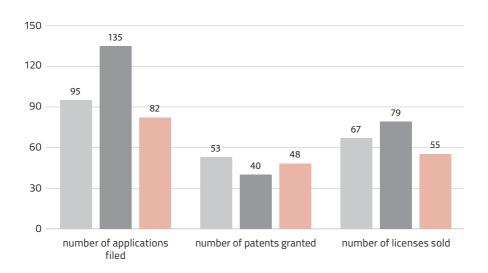
- IP protection (patents, utility models, designs, trademarks) and administration of CTU's Licence Fund used to finance international protection of solutions with high commercial potential
- Assistance with commercialization of research results
- Coordination of contractual research among faculties
- Connecting CTU with business
- Help to start-ups via the incubator InQbay

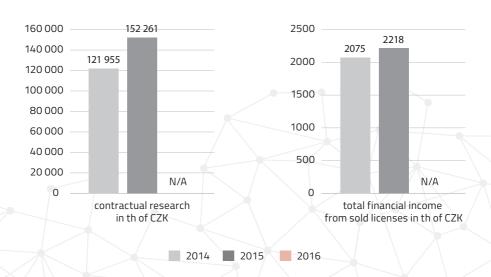
Czech Technical University in Prague is one of the biggest and oldest technical universities in Europe. CTU currently has eight faculties (Civil Engineering, Mechanical Engineering, Electrical Engineering, Nuclear Science and Physical Engineering, Architecture, Transportation Sciences, Biomedical Engineering, Information Technology) and about 21,000 students. For the 2017/18 academic year, CTU in Prague is offering its students 128 study programmes within the framework of which there are 453 fields of study. CTU educates modern, dynamic and flexible specialists, scientists and managers. In 2017, CTU occupied the following positions in the QS World University Ranking, which include more than 4400 world universities: Civil and Structural Engineering – 51st to 100th position; Mechanical Engineering – 151st to 200th position; Computer Science and Information Systems – 201st to 250th position; Electrical Engineering – 151st to 200th position; Mathematics – 251st to 300th position; Physics and Astronomy – 151st to 200th position; Natural Sciences – 220th position; Architecture – 101st to 150th position, and Engineering & Technology – 201st position.

Full Name	Department of Pr	oject Management and Technology Transfer
Parent Institution/s	Czech Technical l	Jniversity in Prague
Manager	Ing. Ivo Stanček e-mail: <u>ivo.stanc</u> tel.: +420 777 45	<del></del>
Contact Address	Zikova 1903/4 166 36 Praha 6	
Website	www.orptt.cvut.	CZ
Year of Establishment	1993	
Number of Employees (FTE)	5	
Number of Employees of the Parent Institution (FTE)	In total Scientific Administrative	3633 2026 1359
Member of Transfera.cz since	2015	
Type of Membership	Associated mem	ber
Main Areas of Expertise	Aeronautics, aero Land transportat	tion, robotics and its applications odynamics, aeroplanes ion systems and equipment ence and machine learning

# MEMBERSHIP IN OTHER ORGANIZATIONS

EBN





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

### Device for testing asphalt mixtures (land transportation systems and equipment):

Uniaxial Shear Tester (UST) is a tool for testing asphalt mixture properties. It is used in combination with Universal Testing Machines (UTM) or Nottingham Asphalt Tester (NAT). Developed UST is capable of measuring shear properties of asphalt mixtures and thus the UST may be utilized to determine asphalt mixture resistance to permanent deformations, calculate pavement rutting and to perform pavement materials quality checks. It can be used to check the quality of asphalt mixtures from cores taken from the pavement structures. Technology can be applied in design of new asphalt mixtures, pavement maintenance and quality checks, preparation of asphalt mixtures etc.

### Multifunctional cement composite (civil engineering):

CTU has developed a prefabricated dry cement mixture which has a high ability to resist the effects of shock and allows a substantial reduction of the term work in the repair of concrete structures. Thanks to the easy workability with good adhesion to the existing surface and the speed of achieving the required strength during solidification, it may be completely statically and dynamically loaded after only 12 to 24 hours. During one day, it is possible to achieve 40 to 60 MPa and a compressive strength within 28 days, then 100 to 110 MPa. Flexural strength reaches 4–11 MPa in one day and 15–20 MPa after 28 days. The mixture is suitable for reconstruction in highly demanding conditions, where concrete structures are subjected to high dynamic loads, or where resistance to chemical degradation processes is required.

# Non-thermal plasma (machine equipment and tools):

This unique device is based on non-thermal plasma, which is characterized by the novel use of the magnetic and acoustic field to discharge, leading to its stabilization and homogenization. Discharge burns equally throughout the whole volume of the discharge chamber. The technology allows the passage of feed gas through the discharge space and at the same time offers the possibility of separating the discharge space from the external environment while preserving an efficient cooling of electrodes. The technology thus allows the user to control physical parameters of the discharge and flow of working gas. The technology can be applied in the inactivation of bacteria and the surface treatment of surfaces exposed to discharge or in the modifying the chemical composition of gaseous mixtures.

# HeRo - Health Robot (communications equipment):

The robot supervises humans and monitors their vital functions. In future versions, it will communicate with home Centres, medical Centres and emergency (first aid) Centres via wireless communication. HeRo can process standard data (temperature, oxygen in the blood, pulse pressure systolic/diastolic). Size of the technology can be adapted to various solutions, e.g. ring, bracelet, watch and many others.





# Institute of Physics of the Czech Academy of Sciences, **Centre for Innovation and Technology Transfer**

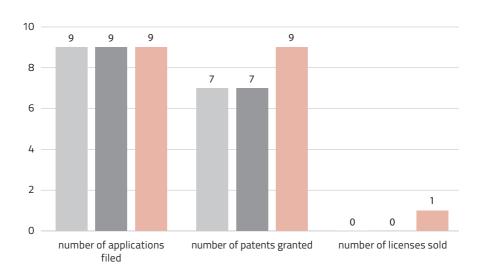
Centre for Innovation and Technology Transfer (CITT) was established in June 2012 under the Institute of Physics of the Academy of Sciences of the Czech Republic. CITT performs protection and subsequent use of intellectual property created within the research activities under the Institute of Physics including projects ELI Beamlines and HiLASE. CITT promotes these outputs to industrial companies and develops cooperation with industry. CITT manages projects to promote technology transfer and proof-of-concept activities from national and international sources and performs contracted research projects.

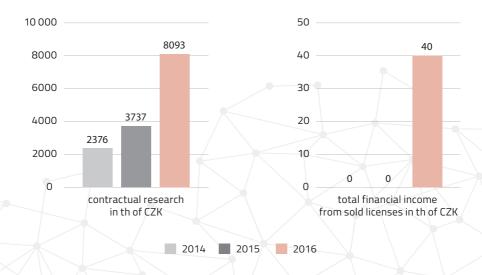
The Institute of Physics is a public research institute, oriented on fundamental and applied research in physics under the Academy of Sciences of the Czech Republic. The present research programme of Institute of Physics comprises five branches of physics: particle physics, the physics of condensed matter, solid state physics, optics and plasma physics. Laser Centres of the Institute of Physics (ELI Beamlines - www.eli-beams.eu, and HiLASE - www.hilase.cz) represent the globally unique research infrastructure. ELI Beamlines is a user infrastructure, which is part of a European plan to build a new generation of large research facilities selected by the European Strategy Forum for Research Infrastructures (ESFRI).

Full Name	Centre for Innovation and Technology Transfer
Parent Institution/s	The Institute of Physics under the Academy of Sciences of the Czech Republic
Manager	Ing. Aleš Hála e-mail: <u>ales.hala@eli-beams.eu</u> tel.: +420 702 004 931
Contact Address	Za Radnicí 835 252 41 Dolní Břežany
Website	www.eli-beams.eu
Year of Establishment	2012
Number of Employees (FTE)	7
Number of Employees of the Parent Institution (FTE)	In total 992 Scientific 535 Administrative 457
Member of Transfera.cz since	2015
Type of Membership	Associated member
Main Areas of Expertise	Optics, masers and lasers Solid state physics and magnetism Elementary particles and high energy physics Theoretical physics

# MEMBERSHIP IN OTHER ORGANIZATIONS

HEPtech





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

### **Institute of Physics offers:**

- Use of lasers with high repetition rate for the micro-machining technology, endurance testing of optical materials, cutting, welding, stripping and laser peening
- Preparation and examination of functional materials and composites, superconductors, liquid crystals, and shape memory alloys in the form of single crystals (e.g. stents for cardiology) polycrystals, nano-structured materials, thin films and coatings materials. Specifically, it deals with the scintillation detectors of radioactive materials and explosive materials based on nanodiamonds for water purification, the nanoparticle layer for protection of monuments, converting waste heat to electricity, extending the life of the fuel for nuclear reactors, accelerating protons laser for treatment of tumour diseases, software solutions in field of electron microscopy, etc.



# University of South Bohemia in České Budějovice, Technology Transfer Office

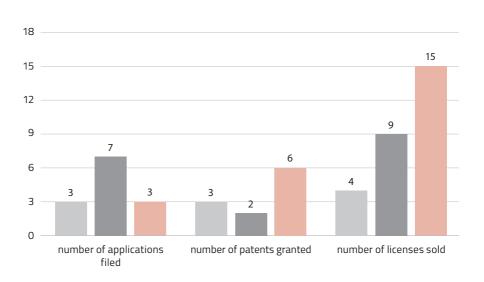
The Office of Transfer of Technologies of the University of South Bohemia offers professional support regarding cooperation of the academic and commercial spheres. Long-term support of transfer of research results and their practical applications belong among the strategic priorities of the university. A specialized department is an important link in this process. Our main activities include e.g. identification of research results which have the most potential to be commercialised. Our aim is to create conditions for industrial-legal protection, provide analysis of market opportunities, find suitable partners, possibly prepare spin-off companies and broker sales or assignments of licenses. The overall outcome of the project is a functioning TTO. The basic function of TTO is linking technology offers (R&D capacity) and stimulating, activating and satisfying technological demand (subjects of the application sphere).

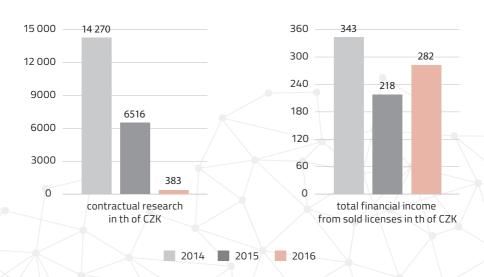
The University of South Bohemia is a public university located in České Budějovice. It specializes in education and research with focus on natural sciences, humanities and social sciences. The university has 11,000 students in more than 200 bachelor, master and doctoral programmes at 8 faculties. Throughout its existence, the University of South Bohemia has become a major research and development centre in South Bohemia. New buildings, equipped with the latest technology and laboratory equipment guarantee top-rate results. The university's focus on research is also confirmed by the comparative ratings of universities, e.g. the 4ICU ranking which reviews more than 11,000 colleges and universities in more than 200 countries and in which the University of South Bohemia ranks at 1,431st place. In 2014, the University launched its first technical programme – Mechatronics. Another major achievement, measured on a European scale, is the development of a unique centre focused on Fisheries and Protection of Waters, the CENAKVA in Vodňany. The university has also built its own polar research station on Svalbard and a terrain station in Papua N. Guinea.

Full Name	Technology Transfer Office
Parent Institution/s	University of South Bohemia in České Budějovice
Manager	RNDr. et Mgr. Růžena Štemberková e-mail: <u>rstemberkova@jcu.cz</u> tel.: +420 702 027 182   +420 389 036 040
Contact Address	Branišovská 1645/31a 370 05 České Budějovice
Website	www.jctt.cz
Year of Establishment	2012
Number of Employees (FTE)	5.61
Number of Employees of the Parent Institution (FTE)	In total 1370.41 Scientific 746.709 Administrative 623.698
Member of Transfera.cz since	2014 (former member of AKTOP)
Type of Membership	Regular member
Main Areas of Expertise	Fishery Biotechnology and bionics Food-processing Biochemistry Agriculture – both plant and livestock production

# MEMBERSHIP IN OTHER ORGANIZATIONS

L.E.S.I. | AIP ČR | ITTN | ASTP-Proton | ERDV region – University Platform





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

### **Fishery and Protection of water**

Omega 3 carp, sturgeon friendly caviar, the method of eliminating stickiness of eggs, improving quality of water (devices and method), a method of ethological monitoring and shellfish, software Biowes, Exposure scope, reproduction and intensive rearing fish, quality of fish meat, artificial reproduction of economically important fish species, development of software and specialized microscopes trace, analyses of foreign organic substances.

# Agriculture and Food processing

Immunanalytic kit for determination of the bovine and sheep, retention system for reducing contamination with radionuclides, preparations inducing increased production of bioactive substances in plants, meat and milk processing, land management, evaluation of qualitative indicators of surface treatment (chemical and physical parameters) and warning for early pollution of surface water-developing specialized software agroecosystems – credit consultancy services.

### **Biotechnology**

Recultivation of post-industrial sites, research of ticks, biology ecosystems, processing of maps which are using GIS tools (processing satellite data, archaeobotany, paleoecology, isotope mass spectrometry).

# **Chemistry and Biochemistry**

Environmental protection chemistry, structural biochemistry, biophysical chemistry, nanotechnology, glycobiology.





# Masaryk University, Technology Transfer Office

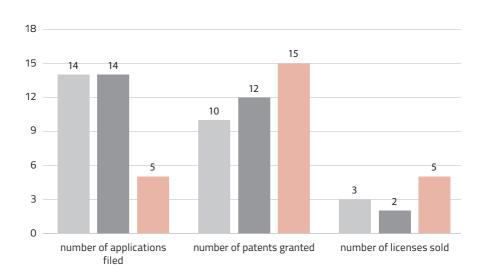
TTO MU was established in 2005 as one of the first TTOs in the Czech Republic. Our aim is to help research results get into practice, protect and manage intellectual property of Masaryk University and provide our clients professional support and service in all related areas. Our team consists of business development managers, project managers, lawyers, administrative department and department of economics. Our services are for both scientists and private companies. We offer technologies for licensing, assistance in finding partners and we make sure the legal requirements for contractual research are met. We also provide expertise in the field of technology transfer and intellectual property rights and offer the research and laboratory capacities of MU.

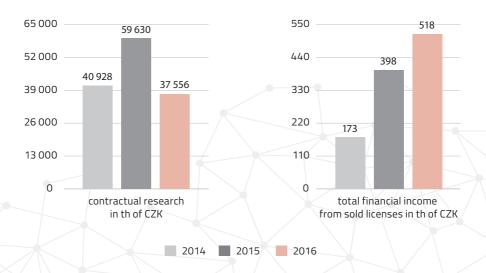
Masaryk University, located in Brno, is the second largest public university in the Czech Republic and the leading higher education institution in Moravia. At present it comprises nine faculties with over 200 departments, institutes and clinics. Recognized as one of the most important teaching and research institutions in the Czech Republic and a highly-regarded Central European university, it has been infused with a strong democratic spirit ever since its establishment in 1919. The university also plays a major role in the social and cultural life of the South Moravian Region. One of Masaryk University's top priorities is scientific research. In addition to attaining a leading position in research grant competitions, the university has made considerable financial investments — especially at its newly erected campus — in order to enhance research and teaching capacity, facilitate the development of tools for the transfer of knowledge and improve support for research and innovation.

Full Name	Technology Transfer Office
Parent Institution/s	Masaryk University
Manager	RNDr. Eva Janouškovcová, Ph.D., LL.M. e-mail: <u>janouskovcova@ctt.muni.cz</u> tel.: +420 549 494 654
Contact Address	Komenského nám. 2 602 00 Brno
Website	www.ctt.muni.cz
Year of Establishment	2005
Number of Employees (FTE)	10.9
Number of Employees of the Parent Institution (FTE)	In total 3992.7 Scientific 2090.5 Administrative 1902.2
Member of Transfera.cz since	2014
Type of Membership	Regular member
Main Areas of Expertise	Biochemistry Chemistry Modification of material properties Information science Social sciences

### MEMBERSHIP IN OTHER ORGANIZATIONS

CESNET | South Moravian Innovation Centre | South Moravian Centre For International Mobility Brno Regional Chamber of Commerce | Confederation of Industry of the Czech Republic





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

### **Biochemistry**

There is a strong application potential e.g. in the research in chronic lymphocytic leukaemia. Another example are methods of molecular biology modified to be used for diagnostics of diseases such as leukaemia or aspergillosis. Rather promising is the research in stomatology, in particular the innovative dental implants and novel materials for the said. Scientists also concentrate their efforts in development and optimization of biosensors for the detection of specific pathogens. The research of diverse classes of micro RNA and their use in diagnostic and prognostics of oncological illnesses is also encouraging.

### Chemistry

Chemistry offers some interesting application possibilities too; a protein engineering focused on stabilization of proteins and new macrocyclic derivatives of glycolurils, and their uses as matrixes for a transportation of medicals in a body or for purifying of water, to name but two. Scientists are engaged in a development of environmentally friendly catalytic systems for organic synthesis, especially catalysts for rare chemical specialities. Very promising are some new compounds intended for a treatment of oncologic and neurodegenerative conditions.

### Modification of material properties

A strong point of Material sciences on MU are plasma treatments of various surfaces with the aim of modifying their properties such as hydrophilicity and hydrophobicity, or removing and introducing new functional residues. A spectrum of possible use of plasma applications is wide-ranging and novel devices for this purpose are being developed at MU. A research on semiconductors is another interesting area; mainly characterization of existing and of new suitable materials is rather sought after in the semiconductor industry.

#### Information science

MU cooperates extensively with industry on an ICT field. There are well established connections between a Faculty of Informatics and member companies of an Association of Industrial Partners. An example of a successful tech transfer is a development of advanced spectrometric systems for detection and characterization of ionizing and a non-ionizing radiation and dosimetry of radiation fields.

#### **Social Sciences**

The Humanities at MU have a great application potential for both the private and the public sector. Outstanding examples thereof are e.g. the application for visitors of the Brno ZOO and the technology of the Teiresias Centre which provides support for all students of MU with sensory and other impairments.

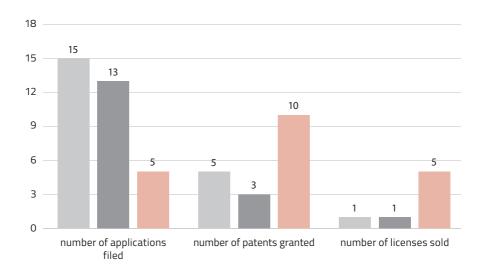


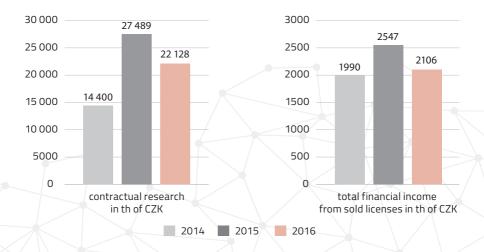
# Mendel University in Brno, Technology Transfer Centre

Technology Transfer Centre of Mendel University in Brno (CTT) is a specialized office for the protection of intellectual property, analysis, development and utilization of the commercial potential of intellectual property of the university, while ensuring the professional business and partnership communication of the university with industry representatives. The aim of the Centre is to extend and intensify the cooperation of the University with companies interested in using the special instrumentation and laboratory equipment or the knowledge potential and scientific results of the University. At the same time, the office supports the establishment of new strategic partnerships in research and development. The mission of CTT is to develop the university, promote its commercial potential and to teach scientists to consider the financial value of their work, which must be reflected in intellectual property protection and, consequently, in selling licenses to the application sphere.

Mendel University in Brno consists of five faculties: Faculty of Agronomy, Faculty of Regional Development And International Studies, Faculty of Forestry and Wood Technology, Faculty of Business and Economics and Faculty of Horticulture and one university institute, the Institute of Lifelong Learning Education. The university provides education at all three levels of university studies, habilitation and professorship. University manages training in the following areas: Architecture and Urban Planning, Biology and Ecology, Economic Sciences, Chemistry, Information Technology, Cybernetics and Informatics, Forestry, Political Sciences, Food Industry, Construction, Teaching, Art, Agriculture, and more than 90 accredited study programs.

Full Name	Technology Transfer Centre of Mendel University in Brno	
Parent Institution/s	Mendel University in Brno	
Manager	MVDr. Ing. Václav Trojan, Ph.D. e-mail: <u>vaclav.trojan@mendelu.cz</u> tel.: +420 545 133 389	
Contact Address	Zemědělská 1 613 00 Brno	
Website	ctt.mendelu.cz	
Year of Establishment	2013	
Number of Employees (FTE)	6	
Number of Employees of the Parent Institution (FTE)	In total 1087 Scientific 191.3 Administrative 409.8	
Member of Transfera.cz since	2015	
Type of Membership	Associated member	
Main Areas of Expertise	Diseases, pests, weeds and plant protection Forestry Botany Agricultural economy Plant cultivation, rotation of crops Fertilization, irrigation, soil cultivation	





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

In the field of forestry, woodworking, wood buildings and furniture, a whole range of services are offered. These are consultancy in the fields of growing and monitoring of forests, diagnostics of trees, soil and other parts of ecosystems, forest ecology, harvesting techniques – forestry production. Woodworking is also an important part, from the production of basic sawmill products, wood-composite materials, special wood products, to products of the wooden building and furniture industry, including furniture design. A specific part is the development and production of cable logging transport of round logs from the areas with difficult access. In these areas, we provide advice, analysis and use of legally protected products (e.g. logging technology, forestry, wood-fiber materials and technology, furniture and wood constructions) and testing of wood and furniture products according to valid standards.

In the field of crop production, a whole range of services are offered. There is advice on the production of vegetables, fruits, grapes, ornamental plants, field crops and forestry. Similarly, the issue of animal production is offered. In addition, chemical analyses on modern laboratory equipment are offered as well as diagnostics of diseases and pests on agricultural crops.

In the field of food technology, advice, analysis and use of legally protected products can be used. For example, there is a patent entitled "Use of saturated fatty acid mixture for inhibition of alcohol or low-alkali fermentation and reduction of dosing sulphur dioxide when producing wine".

There are also new varieties of horticultural crops (apricots, apple trees, Chinese aster, etc.) which are available for commercialization.

Plant nutrition and agricultural technologies are also areas where advice, testing, or other collaboration can be offered.





## National Institute of Mental Health, Centre for Technology Transfer and Applied Research

Centre for Technology Transfer (CTT) is an integral part of National Institute of Mental Health (NIMH) providing support and services for knowledge and technology transfer.

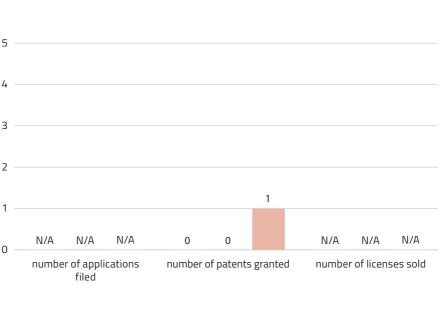
Centre for Technology Transfer covers:

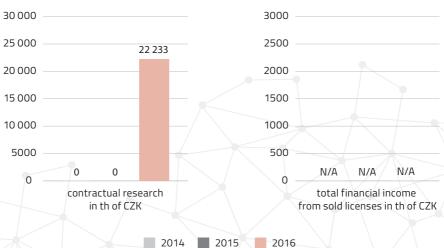
- Identification and verification of research results with potential market applications
- Projects feasibility evaluation
- Patent and legal counselling related to technology transfer
- Protection of intellectual property
- Consultations and financial support
- Comprehensive realization and commercialization plans
- Analysis of market opportunities
- Networking and industry partner search
- Organization and development of technology platforms
- Contractual research and licensing consultations

National Institute of Mental Health originated from Prague Psychiatric Centre on 1st January 2015 and is located at Topolová 748, 250 67 Klečany. The establishment of a new modern centre oriented on research and clinical care was made possible by a project financed by Operational Programme Research and Development for Innovation. NIMH is meant to become national reference institution for the field of mental health. NIMH programme is focused on researching neurobiological mechanisms that lead to development of severe mental disorders (schizophrenia, depression, anxiety and stress reactions). Research also includes development and testing of new diagnostic and therapeutic methods. Our approach is based upon interconnection of methods of molecular biology, animal modelling and clinical research and testing.

Full Name	Centre for Technology Transfer and Applied Research
Parent Institution/s	National Institute of Mental Health
Manager	RNDr. Karel Valeš, PhD. e-mail: <u>tt@nudz.cz</u> tel.: +420 283 088 111
Contact Address	Topolová 748 250 67 Klecany
Website	www.nudz.cz
Year of Establishment	2017
Number of Employees (FTE)	5
Number of Employees of the Parent Institution (FTE)	In total 442 Scientific 94 Administrative 348
Member of Transfera.cz since	2017
Type of Membership	Associated member
Main Areas of Expertise	Psychology Sociology, demography Neurology, neurosurgery, neuroscience Pharmacology and pharmaceutical chemistry Psychiatry, sexology







#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

#### **Psychology**

Projects focus on neuropsychology of sleep, circadian rhythmicity, and treatment of patients with sleep disorders with emphasis on diagnosis at early stage, long-term monitoring and preventive potential of early interventions, incl. study of the dynamics of complex brain processes under normal and pathological conditions and changes induced by various therapeutic procedures (pharmacotherapy, psychotherapy, rTMS, neurofeedback).

#### Sociology, Demography

We deal with social psychiatry, psychiatric epidemiology and the mental health economy. Furthermore, we do epidemiological research focused on the prevalence of substance abuse in the population of adolescents and the adults in the Czech Republic and the development of research instruments for epidemiological and clinical research of addictions. The main outputs are, e.g. map with professional content: Winkler, P., Machů, V., Kondrátová, L. Map of services for people with mental illness.

#### Neurology, Neurosurgery, Neuroscience

We focus on the evaluation of the major neurobiological modalities of the brain in the course of mental illness (MRi, genetics, metabolomics, neuropsychology, EEG, clinical data, etc.). The aim is to create a flexible and modern information e-Health system for complex personalized care. The main outputs are software and e-Health technologies for modern psychiatry and clinical neuroscience.

#### **Pharmacology and Pharmaceutical Chemistry**

Preclinical testing of psychopharmaceuticals. The main outputs are the following patents:  $3\alpha$ -hydroxy-22-oxido-21-homo- $5\alpha$ -pregnan-20-one, a process for its preparation and its use. CZ 302050. Steroid anionic compounds, their production, use and pharmaceutical preparation. EP2435463. Certified methodology: Determination of delta-9-tetrahydro-cannabinol and its metabolite in blood serum by mass spectrometry chromatography. CZ PPR-31123-7/CJ-2015-990530.

#### Psychiatry, Sexology:

NIMH is the Centre of excellence in clinical psychiatry and a modern mental health reference Centre focusing on testing of the latest diagnostic and therapeutic procedures and researching specific biological markers for the early diagnosis of neurodegenerative and neuropathological processes. The main outputs are clinical trials and industrial designs (for example, Pictures for Investigation and Training of Cognitive Functions, CZ 36461).



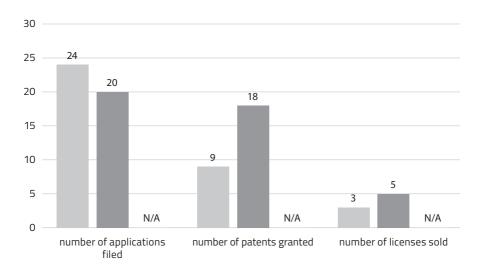
## Technical University of Liberec, Centre for Technology Transfer

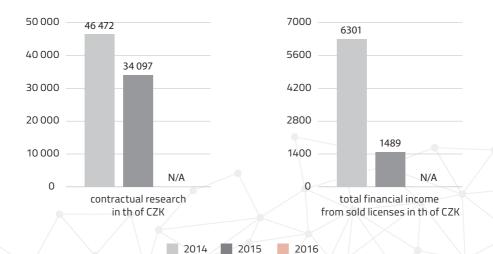
#### **ADMINISTRATIVE INFORMATION**

Full Name	Centre for Technology Transfer
Parent Institution/s	Technical University in Liberec
Manager	Prof. Dr. Ing. Pavel Němeček e-mail: <u>pavel.nemecek@tul.cz</u> tel.: +420 602 429 519
Contact Address	Studentská 2 461 17 Liberec 1
Website	<u>cptt.tul.cz</u>
Year of Establishment	2014
Number of Employees	5
Number of Scientists at parent institution	521
Member of Transfera.cz since	2016
Type of Membership	Associated member

#### MEMBERSHIP IN OTHER ORGANIZATIONS

AK CR | ARR – Regional Development Agency | Association of Deans of Technical Faculties | Association of Textile-Clothing—Leather Industry (ATOK) | Czech Demographic society | Czech Marketing Association | Czech Economic Society | Czech Society for Operations Research | Czech Political Science Association | Czech Society for Systems Integration | Czech Statistical Society | Czech Technology Platform for Textile | Czech Technology Platform for Engineering | Czech Hydrogen Technology Platform | ČNK CIE – International Commission of Illumination | ERSA – European Regional Science Association | Clutex – Cluster of Technical Textiles | Regional Chamber of Commerce in Liberec | Regional Contact Organization – VUTS Liberec, a. s. | Automotive Industry Association | Czech Nuclear Education Network | Czech Society for Mechanics







## Charles University, Centre for Transfer of Knowledge and Technology

The Centre for Transfer of Knowledge and Technology is an independent part of Charles University. It provides services that support knowledge and technology transfer with the goal of increasing competitiveness and attractiveness of Charles University to students, staff, and the public. The centre is building the Charles University Innovation Network by connecting academicians across all faculties and parts of C. U. The network is based on cooperation with innovative organizations outside C. U., brokering knowledge, services, information and funding. The Centre represents a primary contact point for external partners.

#### We are offering:

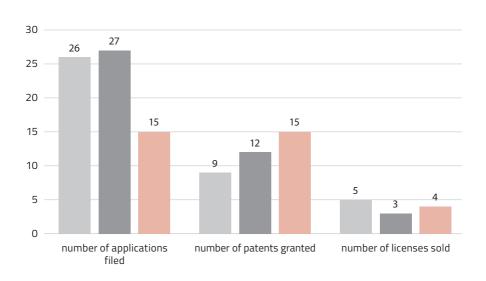
- Patent and legal counselling related to IP protection and commercialization for Charles University researchers and students
- Brokering of cooperation between C. U. departments and the industry
- Preparation and implementation of projects, consulting and financial support of specific commercialization project, including Proof of Concept
- Education in the field of commercialization (e.g. Management of Science and Innovation)
- Strategic and methodical provision of knowledge and technology transfer at C. U.

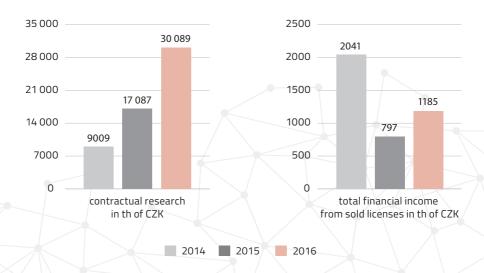
Charles University was founded in 1348, which makes it one of the oldest universities in the world. Currently, it has 17 faculties (14 in Prague, 2 in Hradec Králové and 1 in Pilsen) and several other departments. It is the best-performing research institution in the Czech Republic, according e.g. to the analyses of research outputs carried out by the Czech Research, Development and Innovation Council. The University has more than 8000 employees; of this number, almost 4,600 are academic and research staff. Charles University has over 50,000 students – roughly a sixth of all students in the Czech Republic – enrolled in more than 300 accredited degree programmes that offer over 700 different courses. Every year, just under 9,000 students complete their studies. Charles University is one of the five European universities most popular among the Erasmus exchange students. According to the Reflex 2013–2014 survey carried out by the Faculty of Education, Charles University graduates enjoy the highest employment rates among the Czech public universities. Charles University graduates are among the best paid employees on the job market.

Full Name	Centre for Transfer of Knowledge and Technology of Charles University
Parent Institution/s	Charles University
Manager	Mgr. et Mgr. Hana Kosová e-mail: <u>hana.kosova@ruk.cuni.cz</u> tel.: +420 224 491 508
Contact Address	Petrská 1180/3 110 00 Praha 1
Website	www.cppt.cuni.cz
Year of Establishment	2007
Number of Employees (FTE)	12
Number of Employees of the Parent Institution (FTE)	In total 8086 Scientific 4618 Administrative 3468
Member of Transfera.cz since	2014
Type of Membership	Regular member
Main Areas of Expertise	Pharmacology and pharmaceutical chemistry Medical equipment, instruments and supplies Social sciences and humanities Interdisciplinary combinations New materials and utilization of nanoparticles

#### MEMBERSHIP IN OTHER ORGANIZATIONS

ASTP-Proton (Knowledge Transfer Europe) | AIP | LES | EUKTS | UIIN





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

#### Pharmacology and Pharmaceutical Chemistry

The Faculty of Pharmacy of C. U., together with the Faculties of Medicine, work on projects aimed at finding new compounds which could be used as medicine. One of the priority areas are the substances effective against multi-resistant strains of tuberculosis, a number of which have been patented already; moreover, C. U. is offering a unique opportunity of in vivo testing in cooperation with the army facility in Těchotín. The teams from the Faculty of Science are investigating the potential of new radionuclide carriers for radiodiagnostic and radiotherapeutic purposes.

#### Medical Equipment, Instruments and Supplies

Some of the C. U. teams specialize e.g. in telemedicine and use of technologies for the collection of medically relevant data and their subsequent processing. In this field, there are already several products available on the market (Homebalance, Seniorinspect). Furthermore, development is being carried out of devices monitoring drivers' reactions, a system of contactless adjustable bed control using eye movements and an innovative solution for monitoring in-home therapy.

#### **New Materials and Utilization of Nanoparticles**

New materials and technical solutions concerning their structure and surfaces, including utilization of nanoparticles, represent a promising area of practical application. For example, the team of FMP C. U. managed to lower the amount of platinum on anodes by 99 % while radically decreasing its amount in cathodes as well. By using advanced nanotechnologies, the amount of platinum can be decreased while maintaining high useful output and increasing the lifetime of fuel cells.

#### Social Sciences and Humanities

In these fields, C. U. has a considerable potential and offers a wide variety of courses which can draw on its excellent knowledge base regarding consultations and elaboration of studies, analyses, methodologies and unique data processing. In relation to current issues, such consultations and outputs are being used by some media (e.g. the study of quality of universities) and also by some public institutions and organizations including the Police of the Czech Republic, which consults the C. U. experts e.g. about identifying manifestations of religious extremism.

#### **Interdisciplinary Combinations**

A significant added value of C. U. is the possibility to combine expertise across departments within the entire spectrum of fields offered by the university. There is long-term cooperation with the private sector e.g. in the field of computer linguistics and its use in machine translation. The university's offer allows, for instance, to supply medical research with sociological and demographical data, to combine software development with expert knowledge — a well-known example of this synergy is the computer game Czechoslovakia 38–39, the development of which was aided by C. U. historians who provided authentic content.



## Palacký University Olomouc, Science and Technology Park

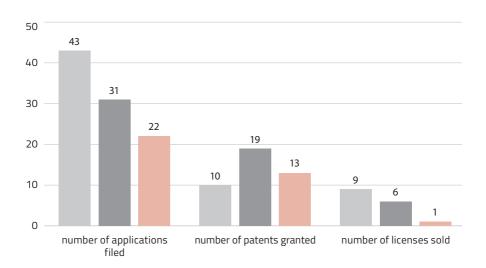
STP UP is a part of the Palacký University Rector's Office (UP). It provides a support to the university's departments throughout the process of technology transfer ranging from consultations to ensure intellectual property protection and management of IP database through the management of proof-of-concept projects, market analysis, correct targeting of research, information basis for license negotiation and the creation of spin-off companies up to business planning and investment in the development of business activities associated with UP outputs. It is also a link between companies and UP, providing the right teams for the cooperation in a wide range of disciplines. It also provides a support for entrepreneurship at supraregional level through the care of an entrepreneurial community, business incubator and accelerator program.

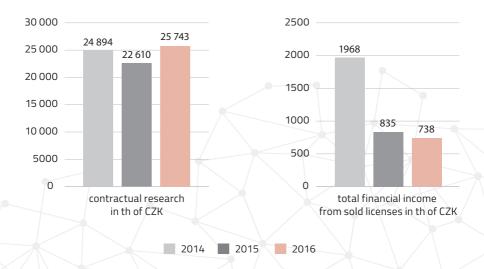
Palacký University Olomouc is a college with a long tradition. It was founded in the 16<sup>th</sup> century and is the oldest university in Moravia and the second oldest in the Czech Republic. At present, it is a modern educational institution with a wide range of study fields and a wealth of scientific activities. It has eight faculties with 22,000 students. Palacký University is ranked among the best Czech universities according to international rankings.

Full Name	Science and Technology Park at Palacky University in Olomouc (STP UP)
Parent Institution/s	Palacký University Olomouc
Manager	Ing. Jiří Herinek e-mail: <u>recepce@vtpup.cz</u> tel.: +420 585 631 420   +420 585 631 448
Contact Address	Šlechtitelů 21 783 71 Olomouc
Website	www.vtpup.cz
Year of Establishment	2007
Number of Employees (FTE)	3,5
Number of Employees of the Parent Institution (FTE)	In total 2453,15 Scientific 1611,854 Administrative 841,296
Member of Transfera.cz since	2014
Type of Membership	Regular member
Main Areas of Expertise	Other materials Genetics and molecular biology Biotechnology and bionics Sensors, detectors, measuring and regulations Sports and recreational activities

#### MEMBERSHIP IN OTHER ORGANIZATIONS

Science and Technology Parks Association of the Czech Republic | National Cluster Association Additive Manufacturing Cluster | Association of Innovative Entrepreneurship





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

#### Other Materials

The Regional Centre for Advanced Technologies and Materials (<a href="www.rcptm.com">www.rcptm.com</a>) develops nanomaterials based on metals, oxides of metals and non-metals with a wide range of applications in the fields of ecology, healthcare, chemical technology, etc. It offers analyses and contractual research in this field to private subjects. The PoC results may include KeyLock technology, which can be used to protect products against counterfeiting.

#### Genetics and molecular biology

The Institute of Molecular and Translation Medicine (<u>imtm.cz</u>) develops methods of diagnosis and treatment of diseases, especially cancers of various types. It offers analyses and contractual research in this field to private entities. Some of the PoC results are laboratory aids in the area of molecular diagnostics Unitrap and Cytotrap universal centrifuge to cytocentrifuge converting kit.

#### Biotechnology and bionics

The Centre of the Region Haná (<a href="www.cr-hana.eu">www.cr-hana.eu</a>) offers research in the field of agriculture, cosmetics and medicine, all based on plant biotechnology. It offers analyses and contracting research in this field to private entities. Outputs of PoC projects are for example FACE compound that increase the resistance of plants against environmental influences or cosmetic anti-aging creams and novel mouthwash active compounds.

#### Sensors, detectors, measurement and regulation

Palacký University has long been developing sensors and units for Mossbauer spectroscopy (it is a world leader in this field) as well as optical and optometric units. The results include, for example, Mossbauer spectrometers (<a href="www.mossbauer-spectrometers.com">www.mossbauer-spectrometers.com</a>) or a PoC outcome Austeniometer for use in on-field analysis of metallic materials or the optometry system for the measurement of reactor flow throughput. The PoC TouchIt3D output lets you convert any 3D object into the control console.

#### Sport and leisure activities

Baluo Application Centre (<u>www.acbaluo.cz</u>) dealing with recreation, healthy lifestyle and applications in the field of physical activity, effective training and recording the movement of the human body. It offers analyses and contractual research in this field to private entities.



## University of Pardubice, Centre for Technology and Knowledge Transfer

Centre for Technology and Knowledge Transfer (CTKT) is responsible for communication and cooperation between the university and the industry. It helps to develop business exploitation of R&D results, provides legal services, professional administrative support, and manages the whole IP protection life cycle, beginning with the invention disclosure and including IP strategy and negotiating IP contracts with commercial partners. CTKT actively seeks the new opportunities to cooperate with businesses.

#### CTKT portfolio of services includes:

- Evaluation and marketing of innovative technologies
- Seeking new commercial opportunities and contract negotiation
- Marketing of unique technological facilities of the university
- Complex technology transfer back office support

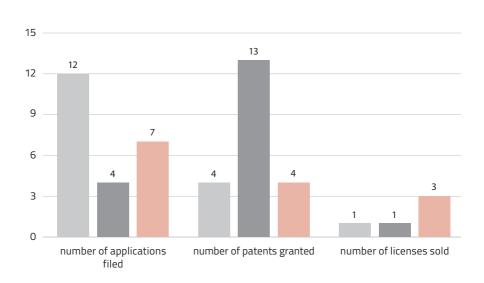
CTKT manages the proof-of-concept projects and technology transfer support and educational activities financed from the Czech national funding schemes.

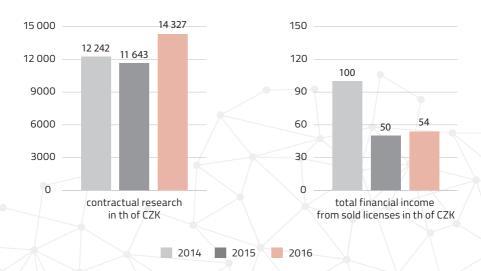
History of the University of Pardubice dates back to 1950. The original College of Chemical Technology has evolved into a modern university, which consists of 7 faculties and provides education in the area of natural and engineering sciences, social sciences and in the medical and artistic fields. Scientific and research activities also form an integral part of the university. The university is involved in many international cooperation projects. Technology and knowledge transfer has been carried out on a broad scale, ranging from collaborative research projects, specific applied research activities that reflect the particular needs of industry, other institutions or companies to expert services and consultancy and IP licensing.

Full Name	Centre for Technology and Knowledge Transfer
Parent Institution/s	University of Pardubice
Manager	Ing. Michal Svoboda e-mail: <u>michal.svoboda@upce.cz</u> tel.: +420 466 037 531
Contact Address	Náměstí Čs. legií 565 530 02 Pardubice
Website	vav.upce.cz
Year of Establishment	2012
Number of Employees (FTE)	8
Number of Employees of the Parent Institution (FTE)	In total 1087 Scientific 602 Administrative 485
Member of Transfera.cz since	2014
Type of Membership	Associated member
Main Areas of Expertise	Organic chemistry Analytic chemistry, separations Industrial chemistry and chemical engineering Electronics and optoelectronics Electrical engineering Land transportation systems and equipment

#### MEMBERSHIP IN OTHER ORGANIZATIONS

Nanoprogress Clustre





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

#### **Organic Chemistry**

- Lactide esterification technology synthesis of lactyllactates with high added value for the use in food, cosmetic or pharmaceutical industry.
- Chelating surfactants with anticorrosion properties these surfactants and chelating agents have strong sequestering properties, are biodegradable and, depending on the side chain, have significant anti-corrosion, antibacterial and antifungal properties.
   They can be utilized in metal-working fluids, metal cleaning detergents, functional (operational) fluids, etc.

#### **Analytic Chemistry, Separations**

Magnetically active  ${\rm TiO}_2$  nanomaterials suitable for preparation of bioactive proteins and other biopolymers for biotechnological and medical applications – completely new approach for purification of His-tagged recombinant proteins using novel inorganic composite and optimized separation conditions. The composite is based on self-organized anodic  ${\rm TiO}_2$  nanotubes loaded homogeneously with magnetite  ${\rm Fe}_3{\rm O}_4$  nanoparticles.

#### **Industrial Chemistry and Chemical Engineering**

Effective method for the removal of crucial contaminants from technological wastes and effluents – removal of undesirable and/or biologically nondegradable contaminants present in technological effluents and solid wastes. The typical representatives of these contaminants are polar and nonpolar aromatic halogenoderivatives and similar compounds. The removal of contaminants is based on application of low-cost commercially available ionic liquids for sorption with appropriate subsequent reductive degradation of obtained products at room temperature and ambient pressure. The applied reagents are recyclable.

#### **Electronics and Optoelectronics, Electrical Engineering**

Portable audiometer will allow rapid and sufficiently reliable screening examinations without the need for direct assistance of professional staff. The measurement results can be sent directly to the data warehouse virtually from anywhere with the possibility of a sophisticated statistical evaluation of the collected data. The attending physician has unlimited access to the results through a web application. It is a competitive innovative product with high added value.

#### **Land Transportation Systems and Equipment**

- Patent CZ 305401 Percussion pendulum-type impact testing machine
- Patent CZ 306546 Clamping device of flat material samples for use in dynamic tensile tests at pendulum impact machine



## Tomas Bata University in Zlín, Technology Transfer Centre

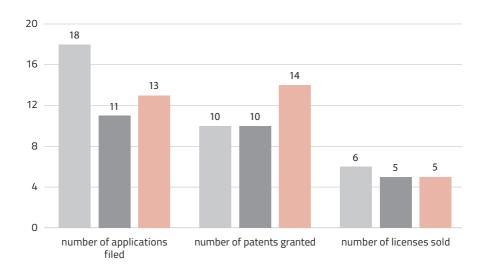
Transfer of the acquired knowledge from the field of basic research into practice is within TBU provided by TTC, established in 2008. TTC provides set of professional services, focused mainly on legal protection of R&D results and their fast and efficient transfer to practice, to the researchers of TBU and to cooperating companies. The services include consultancy, analyses of industrial and legal relations and professional services of patent attorneys. In addition, TTC performs direct representation of TBU concerning industrial property rights before Industrial Property Office, European Patent Office, European Union Intellectual Property Office and the World Intellectual Property Organization. Development of TTC activities and services is in compliance with the needs of the region and regional partners and contributes to ensuring a functional transfer of the applied research activities results into practice.

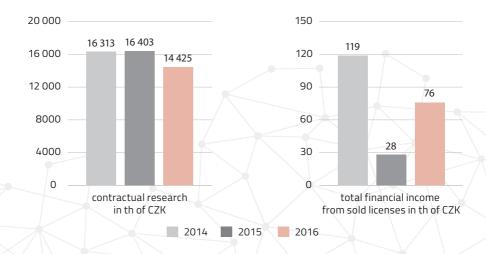
TBU strategic objective, formulated in the Strategic Plan for Education, Science, Research, Development, Innovation, Art and Other Creative Activities of TBU for 2016–2020, is to build up a university with solid reputation in the educational system of higher education; ensure high-quality research activities with eligible outputs in specializations pursued at the University, with a high level of usefulness for a continuous development of the region; develop natural international environment at TBU; exploit knowledge potential and conditions for transformation of TBU into an entrepreneurial university; strengthen activities carried out at the University in the field of social responsibility both in and outside. TBU component parts: Faculty of Technology, Faculty of Management and Economics, Faculty of Multimedia Communications, Faculty of Applied Informatics, Faculty of Humanities, Faculty of Logistics and Crisis Management, University Institute, Library, Halls of Residence and Refectory.

Full Name	Technology Transfer Centre
Parent Institution/s	Tomas Bata University in Zlín
Manager	Ing. Ivana Bartoníková e-mail: <u>bartonikova@utb.cz</u> tel.: +420 576 038 157   +420 734 792 686
Contact Address	University Institute Nad Ovčírnou 3685 760 01 Zlín
Website	www.utb.cz   www.isctt.utb.cz www.inovace.utb.cz
Year of Establishment	2008
Number of Employees (FTE)	8.854
Number of Employees of the Parent Institution (FTE)	In total 847.158 Scientific 476.78 Administrative 370.378
Member of Transfera.cz since	2015
Type of Membership	Associated member
Main Areas of Expertise	Industrial processes and processing Sports and recreational activities Food-processing Composite materials Physics of plasma and gas discharges

#### MEMBERSHIP IN OTHER ORGANIZATIONS

Association of Innovative Entrepreneurship CR | Science and Technology Parks Association of the Czech Republic | European Patent Institute | Chamber of Patent Attorneys CR





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

#### **Industrial Processes and Processing**

- EP 2744351 METHOD OF DEPROTEINIZATION FOR WASTE FATS AND OILS pilot implementation
- GB 303310 Method of deproteinization of waste fats and oils pilot implementation

#### **Sports and Recreational Activities**

 RCD003100189-0001 – aids for disabled persons; Gymnastic and sports equipment, gear and machines – Gama project

#### **Food Processing:**

- CZ306520 nutraceutical food composition Gama project
- GB 304727 Method of producing wine with preserved natural antioxidant capacity licenses, Gama project

#### **Composite Materials:**

- GB 303,996 Polymer composition with co-continuous structure, in particular for preparation of implants with enhanced biocompatibility
- CZ303724 Antimicrobial component and its application Gama project

#### Physics of Plasma and Gas Discharges:

CZ306584 – Device for generating UV radiation and method of generating the radiation – a joint project Czech Republic and Slovenia



# The Institute of Organic Chemistry and Biochemistry of CAS, IOCB TTO s.r.o.

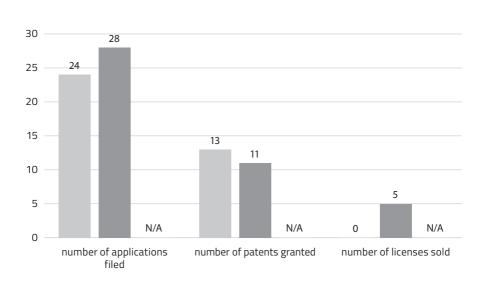
The Institute of Organic Chemistry and Biochemistry of the CAS (IOCB) is one of the leading institutions in Czech Republic and even Europe. It has 60 years of successful basic research in the field of organic chemistry, biochemistry, chemistry of natural products and theoretical chemistry. IOCB is mainly known for its contribution to medicinal chemistry. There have been more than 15 pharmaceutical treatments introduced to the market in collaboration with several partners that originated at the IOCB. The portfolio of antivirotics developed in collaboration with Catholic University in Leuven (Belgium) and Gilead Sciences, Inc. (USA) include TenofovirTM which is a medication successfully used for treating HIV infection (VireadTM, Truvada™, Atripla™, Striblid™ a Complera™). For more information please go to www.uochb.cz.

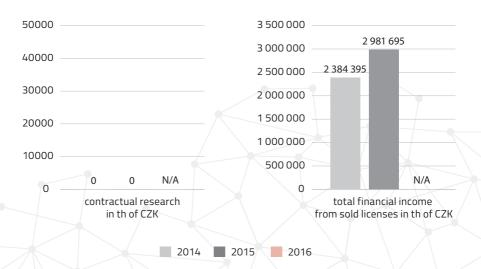
IOCB TTO, Inc. is a technology transfer office that was established at the IOCB in 2009 and is owned entirely by the IOCB institute. The office provides research expertise, IP and project management and commercialization. Furthermore, an integral part of IOCB TTO's duties is the development of spin off companies based on IOCB's research and technologies mainly in medicinal chemistry, biochemistry, organic synthesis and analytical chemistry. The current IOCB TTO portfolio contains number of projects related to different therapeutic or technology areas: diagnostics, drug development, therapeutics, oncology, neuroprotection, metabolic diseases, anti-inflammatory diseases. Another important duty of IOCB TTO is to build long term business relationships with leading pharmaceutical and diagnostic companies and investors. IOCB TTO, Inc. is also a project manager of the Centre for development of original drugs (TEO1020028, TA CR). For more information, please visit us at <a href="https://www.iocb-tto.cz">www.iocb-tto.cz</a>.

Full Name	IOCB TTO s.r.o. (Ltd)
Parent Institution/s	The Institute of Organic Chemistry and Biochemistry of CAS
Manager	Prof. Ing. Martin Fusek, CSc. e-mail: <u>info@iocb-tto.cz</u> tel.: +420 220 183 510
Contact Address	Flemingovo nám. 2 166 10 Praha 6
Website	www.iocb-tto.cz
Year of Establishment	2009
Number of Employees (FTE)	6
Number of Employees of the Parent Institution (FTE)	In total 600 Scientific 500 Administrative 100
Member of Transfera.cz since	2017
Type of Membership	Associated member
Main Areas of Expertise	Drug development Diagnostics Medical technology Organic chemistry Genetics and molecular biology Biochemistry Analytic chemistry, separations Physical chemistry and theoretical chemistry

#### MEMBERSHIP IN OTHER ORGANIZATIONS

ASTP-Proton | MedChemBio Cluster





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

There are circa 18 projects under the supervision of IOCB TTO s.r.o. that developed at IOCB in the field of medicine development, diagnostics, medical technologies, medical chemistry and organic synthesis. Each project is in a different phase of development. Below are stated some of the projects:

#### LIPEON – Lipopeptides for diabetes treatment

Diabetes Type 2 is a metabolic disorder with characteristic high blood glucose levels and insulin resistance. Long-term complications of Diabetes Type 2 are cardiovascular diseases, diabetic retinopathy, kidney failure etc. Diabetes Type 2 has been also associated with cognitive dysfunction and dementia. The rapid growth of the incidence of Type 2 Diabetes is associated with lifestyle and mainly obesity. We are here presenting a compound under development that lowers blood glucose levels, food intake and fat tissue, resulting in weight loss. Furthermore, our drug has been tested for efficacy in several obesity and diabetic animal models. Moreover, NO toxicity has been observed in using standard animal toxicity model. The project is regularly presented and discussed with representatives of relevant pharmaceutical companies in perspective of future in-licensing of the project.

#### DIANA - a supersensitive diagnostics and inhibitor screening

Human diseases are often diagnosed by determining levels of relevant enzymes and treated with enzyme inhibitors. We developed an assay suitable for both ultrasensitive enzyme quantification and quantitative inhibitor screening using non-purified enzymes. In the DNA-linked Inhibitor Antibody Assay (DIANA), the target enzyme is captured by an immobilized antibody, probed with a small-molecule inhibitor attached to a reporter DNA, and detected by qPCR. We validated the approach using two putative cancer markers Prostate Specific Membrane Antigen (PSMA) and Carbonic Anhydrase IX (CAIX).

DIANA has a linear range of up to six logs and it selectively detects zeptomoles of targets in complex biological samples (for example plasma). DIANA's wide dynamic range permits determination of target enzyme inhibition constants using a single inhibitor concentration. DIANA also enables quantitative screening of small-molecule enzyme inhibitors using microliters of human blood sera containing picograms of target enzyme or protein/ligand interaction. DIANA's favourable properties make it a superior tool for both disease detection and drug discovery. A list of available biological markers is under intensive development and in-licensing of the technology is under discussions with several industry partners.





## VŠB – Technical University of Ostrava, Innovation Support Centre – Commercialization of R&D Results Department

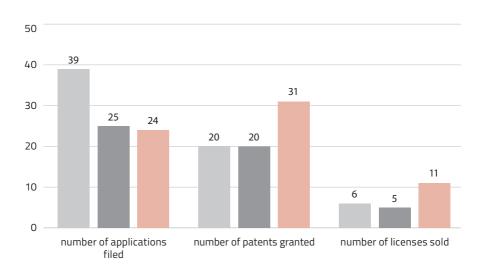
Commercialization of R&D Results Department, which is part of the ISC, focuses on knowledge and technology transfer between academia and industry. The aim is, on the one hand, to convey to the university the practical application of scientific discoveries and technological inventions, and, on the other hand, to allow the access of the application sphere to the latest scientific research findings and the technological equipment. The department specializes in the support of practical use of R&D results and it offers a methodological assistance in finding the appropriate form of innovative product use on the market, a legal support for the implementation of chosen way of commercialization, a verification of potential of the research knowledge for the commercialization or a possible search for the potential business partner or investor. The department is also used as a single Contact point for easy orientation in the complex structure of university departments.

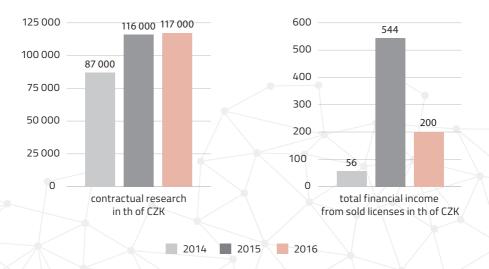
Innovation Support Centre (ISC), ensuring technology transfer between academia and industry, is a supportive centre of VŠB – Technical University of Ostrava. The University is one of Czech's largest public universities and it provides tertiary education within 7 faculties to over 17,000 students in engineering, technical, and economic related areas. Strategic activities are divided into education, science, research, development and creative activities and cooperation with industry. All these activities are connected to support innovations in the Moravian–Silesian Region. Research at the University is ensured by close connection to industry in the region, which in turn ensures that education is geared towards helping students solve the real problems found in the workplace.

Full Name	Innovation Support Centre – Commercialization of R&D Results Department
Parent Institution/s	VŠB – Technical University of Ostrava
Manager	Mgr. Martin Duda e-mail: martin.duda@vsb.cz tel.: +420 597 329 022
Contact Address	Innovation Support Centre, Dep. 9720 17. listopadu 15/2172 708 33 Ostrava-Poruba
Website	cpi.vsb.cz
Year of Establishment	2012
Number of employees	13 (9 FTE)
Number of Employees of the Parent Institution (FTE)	In total 2112.65 Scientific 1077.17 Administrative 1035.48
Member of Transfera.cz since	2014
Type of Membership	Regular member
Main Areas of Expertise	Non-nuclear energy, energy consumption and utilization Information science Machine equipment and tools Computer utilization, robotics and its applications Sensors, detectors, measuring and regulations Other materials

#### MEMBERSHIP IN OTHER ORGANIZATIONS

EBN Innovation Network | Science and Technology Parks Association of the Czech Republic Association of Innovative Entrepreneurship CR





#### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

These are priority areas which fully represent the main orientations of university research and cooperation and create potential for interdisciplinary cooperation.

- 1) In the area of information technology the technology is called "Software for the calculation of bearing-capacity of steel arc-shaped frameworks of mining guns" of the Premogovnik (Velenje) mine in Slovenia. The bearing power of pliable and unpliable open steel framework is possible to calculate in the program. It can be installed in regular computers with Microsoft Office.
- 2) In the area of engineering equipment and instruments the technology is called "Deep hole drilling". Deep hole drilling is used in many industries, especially in power engineering, in the production of equipment for oil and gas extraction, and in aerial and car industries. Extreme conditions during the deep hole drilling often appear, which places demands on instruments, machines and required equipment.
- 3) In the area of non-nuclear power engineering, consumption and use of energy the technology is called "Automatic condensation boiler for high-moisture biomass burning". The automatic condensation boiler is designed as a modular system, when particular parts connect to each other and allow various solutions for mutual organization of the technology in regards to a specific place of installation. This solution also offers considerable variability so that a performance from 10 to 500 kW could be reached.
- 4) In the area of sensors, detectors, measurement and regulation the technology is called "Methodology and device for malfunction detection in high-voltage isolated pendant conductors". It's a detector of isolated pendant conductors in distribution networks and it was developed in cooperation with a commercial partner. The development of the prototype is in a progress and it's intended for distribution networks not only in the Czech Republic, but also Scandinavia.
- 5) In the area of materials the technology is called "Acoustic non-reflective chamber". The chamber is unique in the CR in many regards and it's indispensable for the consideration of undesirable noise effects. It's a universal acoustic workplace intended for very low sound measurement such as liquid or gas flow, or sounds connected with mechanical activities. The chamber can be also used for ear protector optimization, or for testing of voice recognition devices.



## Brno University of Technology, Technology Transfer Office

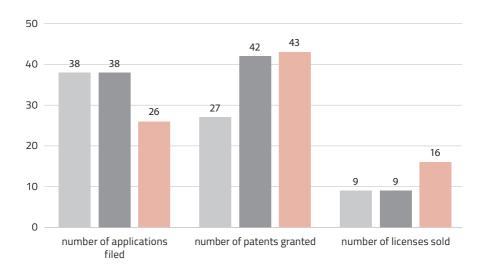
The Technology Transfer Office (TTO) plays an important role in transferring knowledge in the university into practical use. The TTO is active especially in the following areas:

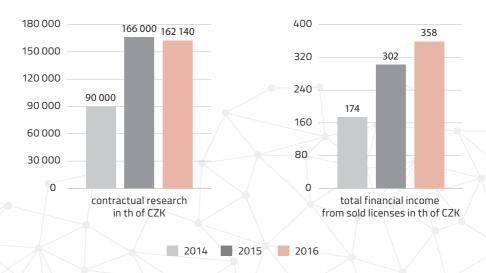
- Support of cooperation between the university and businesses TTO supports cooperation with businesses in form of contractual research or collaboration in domestic or international grant projects. With new contacts, the TTO works as the first contact point within the university which, after a preliminary analysis of the partner's requirements, finds and recommends a suitable faculty research team to perform the task. For both new and established partnerships, the TTO offers legal advice on contractual and intellectual property issues.
- Commercialising and marketing R&D results TTO plays a very important role in assessing the inventions and technologies made by university researchers in terms of their practical applicability and possibilities for commercialisation.
- Intellectual property protection

Brno University of Technology is the only comprehensive technical university in the South Moravian Region and, with its 22,000 students and 1,300 researchers, an important academic institution of Central Europe. Apart from providing education in accredited fields and involvement in extensive scientific activities an ever greater role is played by the transfer of the unique ledge and technologies to businesses with the purpose of their commercial utilization. The university benefits from its very broad portfolio. Its eight faculties teach nearly all technical fields (civil engineering, mechanical engineering incl. aerospace, electrical engineering and communication technologies, information technologies, chemical engineering) as well as selected artistic fields of study (such as industrial design).

Full Name	Technology Transfer Office
Parent Institution/s	Brno University of Technology
Manager	Ing. Roman Molík, MBA e-mail: <u>molik@ro.vutbr.cz</u> tel.: +420 541 145 238
Contact Address	Antonínská 548/1 601 90 Brno
Website	www.spolupracesvut.cz
Year of Establishment	2002
Number of Employees (FTE)	6.3
Member of Transfera.cz since	2014
Type of Membership	Regular member









## University of West Bohemia, Department of Technology Transfer

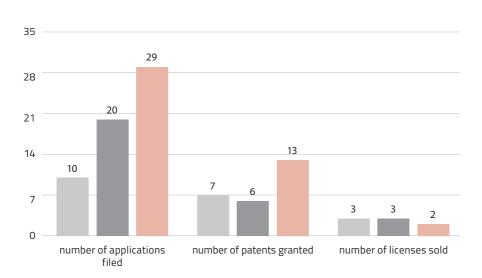
Knowledge and technology transfer at the University of West Bohemia in Pilsen (UWB) is coordinated by the Department of Technology Transfer (DTT). The department's main activity is providing complex support to academicians, researchers and students with a goal to put into practice as many of their ideas, results and know-how as possible. It is a central department providing services to all nine faculties and their research centres. DTT takes care of the administration of intellectual property of UWB, monitors promising results or know-how and manages the process of their commercial application. Another objective of DTT is to maintain close cooperation with companies, partner institutions and experts from the private sector.

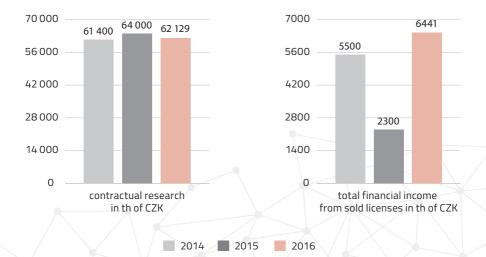
The University of West Bohemia (UWB) is the only public institution of higher education based in the Pilsen Region. Currently, it has 9 faculties with more than 60 departments and 2 academic institutions. More than 12,000 students can choose from a wide of range of undergraduate, postgraduate and doctoral study programs. In addition to its educational activities, the University is also an important centre of research and development, making substantial investments in University development and construction activities on the University campus (e.g. the new buildings of the European Centre of Excellence NTIS and the Centre of Technical and Natural Science Education and Research literally). The newly constructed research centres will definitely strengthen the links between the University and the private sector. UWB holds an important position among universities both in the Czech Republic and in Europe. Our position within the European tradition of university education was recently strengthened by the ECTS Label (European Credit Transfer and Accumulation System designation) which the University received in late 2012.

Department of Technology Transfer
University of West Bohemia
Mgr. Petra Krupková e-mail: <u>krupkova@rek.zcu.cz</u> tel.: +420 377 631 086
University of West Bohemia Univerzitní 8 306 14 Plzeň
transfer.zcu.cz
2013
4
In total 1697.2 Scientific 885.7 Administrative 811.5
2014
Associated member
Land transportation systems and equipment Computer utilization, robotics and its applications Non-nuclear energy, energy consumption and utilization Machine equipment and tools Sensors, detectors, measuring and regulations

#### MEMBERSHIP IN OTHER ORGANIZATIONS

AIP | ASTP-Proton | AUTM – Association of University Technology Managers





# II. TRANSFERA.CZ OTHER MEMBERS



# **Association of Innovative Entrepreneurship CR**

Association of Innovative Entrepreneurship of the Czech Republic (hereafter AIE CR) was established as an association under Act No. 83/1990 Coll. on June 23, 1993. Since 1 January 2014, according to Act No. 89/2012 Coll. (Civil Code), its § 3045, par 1, and following meaning of § 214 et seq. Civil Code (case number L 5141, filed with the Municipal Court in Prague), AIE CR has been considered a registered association. AIE CR, z.s. is the initiator of the establishment and further development of the Innovative Entrepreneurship System in the Czech Republic.

The main activity of AIE CR is research and development in the field of innovative business, such as research, development and innovation, technology transfer, new materials and technologies, science and technology parks, innovation firms, innovation processes, innovation infrastructures, innovation potential and the conditions for a functioning innovation market, and respecting the rules of the Community framework of the European Union (Community Framework for State Aid for Research, Development and Innovation) including other generally binding legal regulations.

Other activities and projects of the AIE CR are including support of both EUREKA programme (since 1996) and Eurostars programme (since 2008), organising INNOVATION event – the Week of Research, Development and Innovation in the Czech Republic (since 1994) and Innovation of the Year Award (since 1996), publishing journal IP&TT (since 1993), providing training of experts in the field of innovative entrepreneurship (since 1993), involving in the International Innovation Centre (since 2002), providing services concerning Technological profile of the Czech Republic (since 1998), participation as associate member of Enterprise Europe Network, and managing Experts teams regarding Innovation policy, Education, Regions, and Technology transfer.

Full Name	Association of Innovative Entrepreneurship	
ecretary-General  Assoc. Prof. Ing. Pavel Švejda, CSc., FEng. e-mail: svejda@aipcr.cz tel.: +420 221 082 275		
Contact Address	Novotného lávka 5 116 68 Praha 1	
Website	www.aipcr.cz	



# BIC Brno spol. s r.o. (Ltd)

BIC Brno is a business and innovation Centre, which was established in 1991 as a part of the European network of Business and Innovation Centres (EBN) aimed to promote innovations and transfer them into practice. During our existence, we have established cooperation with more than 500 innovative companies and several scientific institutions and research institutions in the Czech Republic and abroad. Our activities in the field of technology transfer are creating a connecting bridge between research institutions and industry.

The main activity of BIC Brno is active support of companies that are engaged in the research, development and innovation. We offer advisory and cooperation in the field of finance, special education or technology transfer. In addition, we are helping to find partners for project consortia or to establish cooperation with scientific institutions at both national and international level.

Full Name	BIC Brno spol. s r.o. (Ltd)  Svatopluk Bagara e-mail: bagara@bicbrno.cz tel.: +420 511 156 228  Technology Innovation Transfer Chamber Purkyňova 648/125 612 00 Brno	
Manager		
Contact Address		
Website	www.bicbrno.cz	
Year of Establishment	1991	
Number of Employees (FTE) (FTE)	6	
Member of Transfera.cz since	2015	
Type of Membership	Associated member	

# MEMBERSHIP IN OTHER ORGANIZATIONS

Association Of Research Organizations (AVO) | Science and Technology Parks Association of the Czech Republic | Confederation of Industry of the Czech Republic | Czech Chamber of Commerce



# DERS, spol. s r.o. (Ltd)

DERS Limited was founded in 1999 and employs 45 people. From the start, it was continually developing and providing software solutions, that accounts for almost 50 % of the total results of R&D and Innovation generated by research organizations in the Czech Republic. DERS also provided the necessary tools required for project management in more than 25,000 realized projects. It also developed SW that supported internal grant competition for a total of CZK 2,200 million to be shared by universities for specific research. Among our clients are the biggest Czech universities, the Czech Academy of Sciences, university hospitals, museums and private research centres.

Currently we are offering a set of software tools for managing multi-projects, supporting the PDCA cycle in research centres. These tools take into account the requirement of the Europe Commission like eIDAS and GDPR and others.

DERS spol s.r.o cooperates with certain research organizations in the area of knowledge transfer and organized its 14<sup>th</sup> annual conference "All for Science", where the ,main stake holders meet the representatives of research organizations and ICT.

### **Contact:**

Mgr. Filip Skyba, KAM

e-mail: skyba@ders.cz

tel. + 420 603 420 269



# South Bohemian Agency for Support to Innovative Enterprising

JAIP was founded in 2005 and its main mission is creation of conditions for advancement of research, development and innovative enterprising in the South Bohemian Region to increase its prosperity. One of our activities which fulfils our mission is management of the 1st stage of the South Bohemian Science and Technology Park. It includes Business Incubator, Innovation Centre and Centre for Technology Transfer. Provided services are not sector limited. Our other activities are support of improvement of research innovation policy in the South Bohemian Region and support of company acceleration at all phases of their development.

Full Name	South Bohemian Agency for Support to Innovative Enterprising (JAIP)  Ing. Michaela Novotná e-mail: novotna@jaip.cz tel.: +420 608 572 269	
Manager		
Contact Address	Na Zlaté stoce 1619 370 05 České Budějovice	
Website	www.jaip.cz	
Year of Establishment	2005	



# **OK4Inovace**

OK4Inovace is a non-commercial organization whose purpose is to implement activities to support innovations in companies, emergence of industry collaborations with research institutions and improvement of the education system in the Olomouc Region. In order to support the establishment of cooperation between companies and universities as well as other research institutions, OK4Inovace organize match-making events such as QuickDating for Innovations or Brokerage 4 innovations and, on the basis of the identifications of innovative inquiries, help to individual contact between companies and research institutions. It is also entrusted with the implementation of the "Smart Accelerator of the Olomouc Region" (project that is part of RIS3 Strategy) with the aim of developing the competitiveness and the knowledge economy in the region.

The co-founders and co-owners of the OK4Inovace Association are: Olomouc Region, Statutory City of Olomouc, Palacký University Olomouc, College of Logistics, Foundation Institute of Regional Cooperation and the MedChemBio Cluster.

# In the area of technology transfer support, OK4Inovace focuses mainly on:

- Organizing match-making events at meetings and initiating cooperation between companies and universities or other research institutions (Innovation Speed Dating; Brokerage 4 Innovations) in specific fields and application domains such as: Mechanical engineering; Electrical engineering, electronics, devices; Plastics, composites, advanced materials; Technologies for water management, transport, purification and treatment of water; Food industry, beverage industry, feed industry; Ecological and environmental technologies and nanotechnologies for specific application fields.
- Finding partners and organizing meetings between research institutions and companies interested in innovative cooperation on the basis of identifying their innovation demand (in various fields)

Full Name	OK4Inovace
Manager	Kamil Krč e-mail: <u>krc@ok4inovace.cz</u> tel.: +420 587 432 018
Contact Address	Jeremenkova 1211/40b 779 00 Olomouc
Website	www.ok4inovace.cz
Year of Establishment	2011
Number of Employees (FTE) (FTE)	6
Member of Transfera.cz since	2015
Type of Membership	Associated member





# PatentCentrum Sedlák & Partners s.r.o. (Ltd) ... Your Patent Office

The Patent Office provides comprehensive services for the protection of intellectual property in the Czech Republic and abroad. Researches, patent applications and utility models are being prepared by experienced patent attorneys and assistants specialized in the various fields of engineering (industries, electronics, IT, chemistry, biotechnology). The team also consists of trademark attorneys and lawyers specialized in IPR. PatentCentrum works closely with technology transfer centres at academies, universities and research institutes. This cooperation is supported by references from extensive contracts in industrial property and copyright area. It represents important Czech and foreign companies from the commercial and production sphere at the same time. Knowledge of both environs is an advantage, among other things, for transfer activities, e.g. for negotiating of license agreements etc.; another advantage is flexibility and communication.

# Our patent office specializes in:

- Protection of intellectual property both in the Czech Republic and abroad
- Patents and utility models
- Trade marks, industrial designs
- Licenses, contracts
- Copyright law

Full Name	PatentCentrum Sedlák & Partners s.r.o. (Ltd)
Manager	Ing. Jiří Sedlák e-mail: <u>sedlak@patentcentrum.cz</u> tel.: +420 777 743 153
Contact Address	Husova tř. 1747/5 370 01 České Budějovice
Website	www.patentcentrum.cz
Year of Establishment	1993
Number of Employees (FTE) (FTE)	13
Member of Transfera.cz since	2016
Type of Membership	Associated member



# Technology Innovation Centre s.r.o. (Ltd)

Through its Industrial Practices Division, TIC deals primarily with the activities promoting technology transfer between universities and industrial practice, Intellectual Property Protection Consultancy and creates an environment for mutual exchange of experience and solutions, mainly through a specialized system of Open Innovation.

Full Name	Technology Innovation Centre s.r.o. (Ltd)	
Managing Director	Mgr. Daniela Sobieská e-mail: <u>sobieska@ticzlin.cz</u> tel.: +420 739 015 609	
Contact Person	Ing. Daniel Hajda e-mail: <u>hajda@ticzlin.cz</u> tel.: +420 734 443 877	
Contact Address	Vavrečkova 5262, budova 23, 760 01 Zlín	
Website	www.ticzlin.cz   www.otevreneinovace.cz	
Member of Transfera.cz since	2016	
Type of Membership	Associated member	



# **Tertiary Education & Research Institute**

The main mission of TERI is to conduct independent research and provide education and knowledge dissemination in the area of higher education policy, science policy, research & development and innovation policy and knowledge and technology transfer.

TERI also runs the portal vedavyzkum.cz (in Czech only) which provides relevant, structured and up-to-date information on research, development and innovation and related areas such as higher education, IP protection, knowledge and technology transfer, commercialization and cooperation between academia and business, etc.



# III.

# TRANSFERA.CZ COLLABORATING SUBJECTS





# Centre for Transfer of Biomedical Technologies

The CTBT is a joint commercialization office for researchers of UHHK, UHK and FMHS. The mission of CTBT is to protect the intellectual property of all participating institutions, and to transfer the outcomes of R&D to the market. CTBT's responsibilities include management of legal protection of new technologies streaming from research and development in the form of patents, utility models or classified know-how. In this area we provide both administrative and legal support, we carry out patent and non-patent literature searches. CTBT's main goal is successful management of the commercialization activities of the intellectual property, e.g. licensing patents or launching spin-off companies. In this way we provide researchers with both the administrative and legal and business development assistance. We directly search for a suitable investor or business partner that might be interested in licencing the technology and we negotiate licensing terms.

The research of UHHK focuses on the whole process of many diseases/disorders: from biomarkers, and their detection by modern diagnostic methods through pharmacology and proteomics of new molecules in various fields of medicine. Experienced doctors develop and improve surgical instruments and other medical devices. UHHK carries out every year hundreds of drug clinical trials and medical device clinical tests. Research of UHK is focused by the interests of individual faculties and departments on humanities and technical fields. Most research activities are concentrated on the following areas: Information and communication technologies, Appl. Science, Functional foods and healthy nutrition, History, Linguistics and Politics, Social work services. The research of FMHS focuses mainly on military acute and preventive medicine: Treatment of nerve gas intoxication, Specific biosensors, Decontamination and disinfection, Detection of radiation exposure, Unique biomolecular markers, Vaccination.

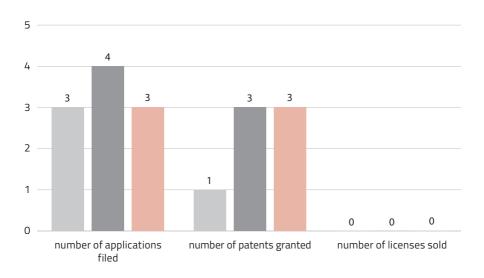
# ADMINISTRATIVE INFORMATION

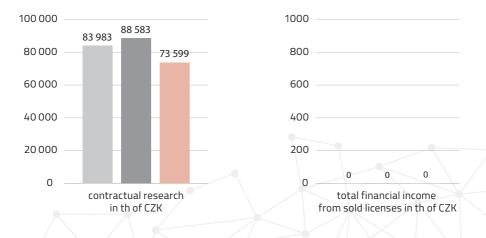
Full Name	Centre for Transf	Centre for Transfer of Biomedical Technologies	
Parent Institution/s	University of Hradec Kralove,		
	University Hospital Hradec Kralove		
	and Faculty of Military Health Sciences		
	of University of Defence		
Manager	Mgr. Lucie Bartošová, Ph.D.		
	e-mail: <u>lucie.bartosova@fnhk.cz</u>		
	tel.: +420 727 802 314		
Contact Address	Sokolská 581		
	500 05 Hradec Králové		
Website	ctbt.cz		
Year of Establishment	2012		
Number of Employees (FTE)	3		
Number of Employees of the Parent	In total	5132,97	
Institution (FTE)	Scientific	465,74	
	Administrative	242,16	
Member of Transfera.cz since	2015–2016		
Type of Membership	currently not a member		
Main Areas of Expertise	Medical equipment, instruments and supplies		
	Pharmacology and pharmaceutical chemistry		
	Sensors, detectors, measuring and regulations		
	Genetics and molecular biology		
	Personalized me	dicine	

# MEMBERSHIP IN OTHER ORGANIZATIONS

AUTM

### INSTITUTION'S PERFORMANCE





2016

2014 2015

### MAIN AREAS OF EXPERTISE AND EXAMPLES OF COMMERCIAL SOLUTIONS.

## Medical Equipment, Instruments and Supplies:

- Medical device for continuous or pulsatory pressure application for wound healing
- Exercising, positioning and lifting device for rehabilitation and patient activization on the bed
- Dual cartridge insulin pen
- Photodynamic therapy using phthalocyanines in dermatology
- Balance belt for training of walking, getting up and balance
- Kit for measurement of binding capacity of blood serum for copper

# Pharmacology and Pharmaceutical Chemistry

- Cholinesterase reactivators as antidotes
- Tacrine hybrids with NMDAR antagonists for treatment of neurological disorders
- Tacrine hybrid molecules with antioxidant effects for treatment of neurological disorders
- Dietary supplements containing thioglutathiones with antioxidant effect
- New disinfection formulation with original disinfectant compound
- Abad inhibitors novel therapeutic strategy to treat alzheimer's disease

# Sensors, Detectors, Measuring and Regulation:

- Inductive current shunt
- Large capacity fully adjustable capacitor
- Large induction fully adjustable coil
- Detector of living organisms in closed spaces

# **Genetics and Molecular Biology**

Diagnostic kit hsv-1 and hsv-2

### Others

- Food products from lupine beans and their production
- Glucose pellets as delayed energetic source for diabetics and sportsmen



# ILA, s.r.o. (Ltd)

ILA is an innovation agency active in science based business. It develops, plans, coordinates, and implements innovative projects based on results of scientific research and development. It also raises funds for their financing from both private and public sources, the latter mostly by writing down applications for funding from both national (ESIF and TA CR) and European (Horizon2020, Interreg, Erasmus+) funding programs.

Its clients are research institutes and universities, commercial enterprises (both SMEs and corporations), governmental agencies and municipalities as well as NGOs coming from the CR and EU.

ILA has seven permanent employees and a network of approximately 20 freelance consultants engaged on a temporary scheme. It launches also its own daughter start-ups; the most successful of them is the Central European Data Agency a.s. – see <a href="https://www.ceda.cz">www.ceda.cz</a> – founded in 2000. Recently it has extended its activities also into social entrepreneurship domain (founding of Domus Vitae, z.ú.).

Full Name	ILA, s.r.o. (Ltd)	
Owners and managing directors	RNDr. Ivan Dvořák CSc e-mail: <u>ivan.dvorak@ial.cz</u> tel.: +420 608 702 223	MUDr. Kateřina Čihařová e-mail: <u>katerina.ciharova@ila.cz</u> tel.: +420 774 007 789
Contact Address	Opatovická 1659/4, 110 00 Praha	
Website	www.ila.cz	
Member of Transfera.cz since	1994	

# Other Members of Transfera.cz:

- SwissCzech Technology Transfer s.r.o. (Ltd)
- Institute of Experimental Medicine AS CR
- University of Veterinary and Pharmaceutical Sciences Brno
- University of Chemistry and Technology, Prague

# **Honorable Members:**

- Ing. Jiří Winkler, CSc., FEng. Engineering Academy of the Czech Republic
- RNDr. Ivan Dvořák, CSc. Societas Rudolphina, o.s.
- prof. RNDr. Ing. Jan Vrbka, DrSc.\* Brno University of Technology

\*Professor Jan Vrbka died in May 2017. His work contributed significantly to the establishment and development of technology transfer in the Czech Republic. That is why we are including him in this overview, unfortunately only in memoriam, as an honorary member of Transfera.cz.



Is a unified functional platform protecting the interests of the Czech transfer community; its objective is to advance and strengthen technology transfer.

Overview of Technology Transfer Offices and Other Members of Transfera.cz

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