



FIRST FACULTY  
OF MEDICINE  
Charles University





## Number One, The Oldest and Yet Young...

The main aim of the First Faculty of Medicine of the Charles University – which we less formally tend to call just ‘Number One’ – is to train capable graduates who are prepared for medical practice, professionals, who are well acquainted with biomedical sciences, who understand their responsibilities with respect to basic human values and who can make us proud in the international competition. Our aim is not to teach our students to walk. We want to teach them to search for new ways and directions and we are convinced we have the best conditions to achieve this: excellent lecturers and good facilities at the clinics and institutes.

Research activities are an integral part of work carried out at any good university. In terms of quality of scientific work carried out here, our faculty ranks among the top ten research institutions in the Czech Republic and, even more importantly, it is an institution respected worldwide. Coordination between medical disciplines and top quality basic research is an irreplaceable source of future applications and clinical implementation from which patients can benefit. At our faculty, we support teams that come up with new ideas.

It is sometimes said that there are schools where students learn from books, schools where the books are written, and then there are schools where the results are achieved so that those books could be written. Our goal is to do our best to always belong among the last named.

Aleksi Šedo, Dean of the First Faculty of Medicine of the Charles University



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## Number One in Numbers

**75**  
clinics  
and institutes



**956**  
PhD. students



**10**  
fields of study



**1,713**  
employees



**349**  
professors  
and associate professors



**4,262**  
applicants  
for the study  
of general medicine  
and dentistry



**1,472**  
foreign students



**2,809**  
Czech students



**1,049**  
accepted  
students



**204**  
grant projects



Numbers valid for 2016.



## Excellent Teachers

Since the foundation of a medical faculty at the Charles University in Prague in 1348, dozens of important scientists had taught here, including Jan Jesenius, Jan Evangelista Purkyně, Rudolf Jedlička, and Jan Janský.

Many academics from our faculty currently occupy leading positions in prestigious scientific societies in the Czech Republic and abroad, lead numerous Czech hospital clinics and institutes, and are active in the scientific boards of many institutions and editorial boards of renowned, high-impact journals. Most of them also participate as principal researchers or co-researchers in numerous research projects supported by domestic and foreign institutions. Publication activity of teachers of the First Faculty of Medicine of the Charles University increases year by year and is by now one of the highest among medical faculties in the Czech Republic. The number of current important personages connected with the First Faculty of Medicine of the Charles University is perhaps even higher than in the past. They include for instance Pavel Klener, Pavel Pafko, Štěpán Svačina, Karel Smetana Jr., and Tomáš Zima.

As a part of its international cooperation on various research projects or teaching, our faculty also hosts numerous visiting professors from many different areas of medicine, all the way from clinical to theoretical fields and from ethics or occupational therapy. Our visiting scholars include important scientists from prestigious international institutions. At the moment, the title 'visiting professor of the First Faculty of Medicine of the Charles University' applies to over thirty specialists from renowned institutions from all over the world.

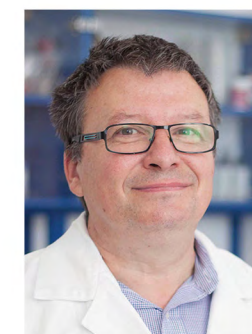


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Study Programmes

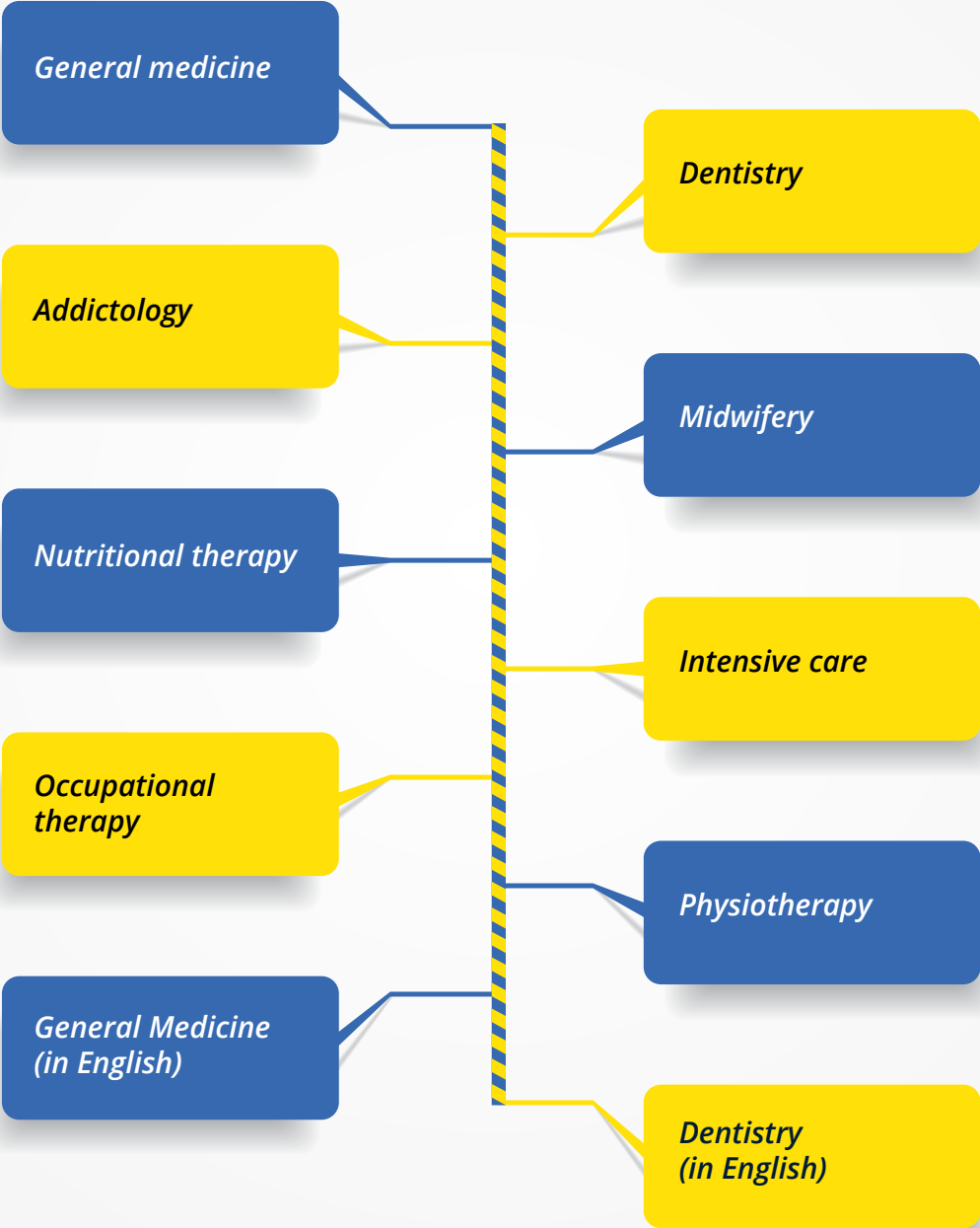


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## Clinical Facilities

The First Faculty of Medicine of the Charles University has the broadest range of clinical facilities of all the medical schools in the Czech Republic. It shares almost 60 clinical institutes with the General University Hospital in Prague, Central Military University Hospital Prague, University Hospital Motol, Thomayer Hospital, Na Bulovce Hospital, Institute of Rheumatology, and Institute of Haematology and Blood Transfusion. On the top of that, the First Faculty of Medicine also cooperates with other medical centres, such as the Na Homolce Hospital or Institute of Clinical and Experimental Medicine.

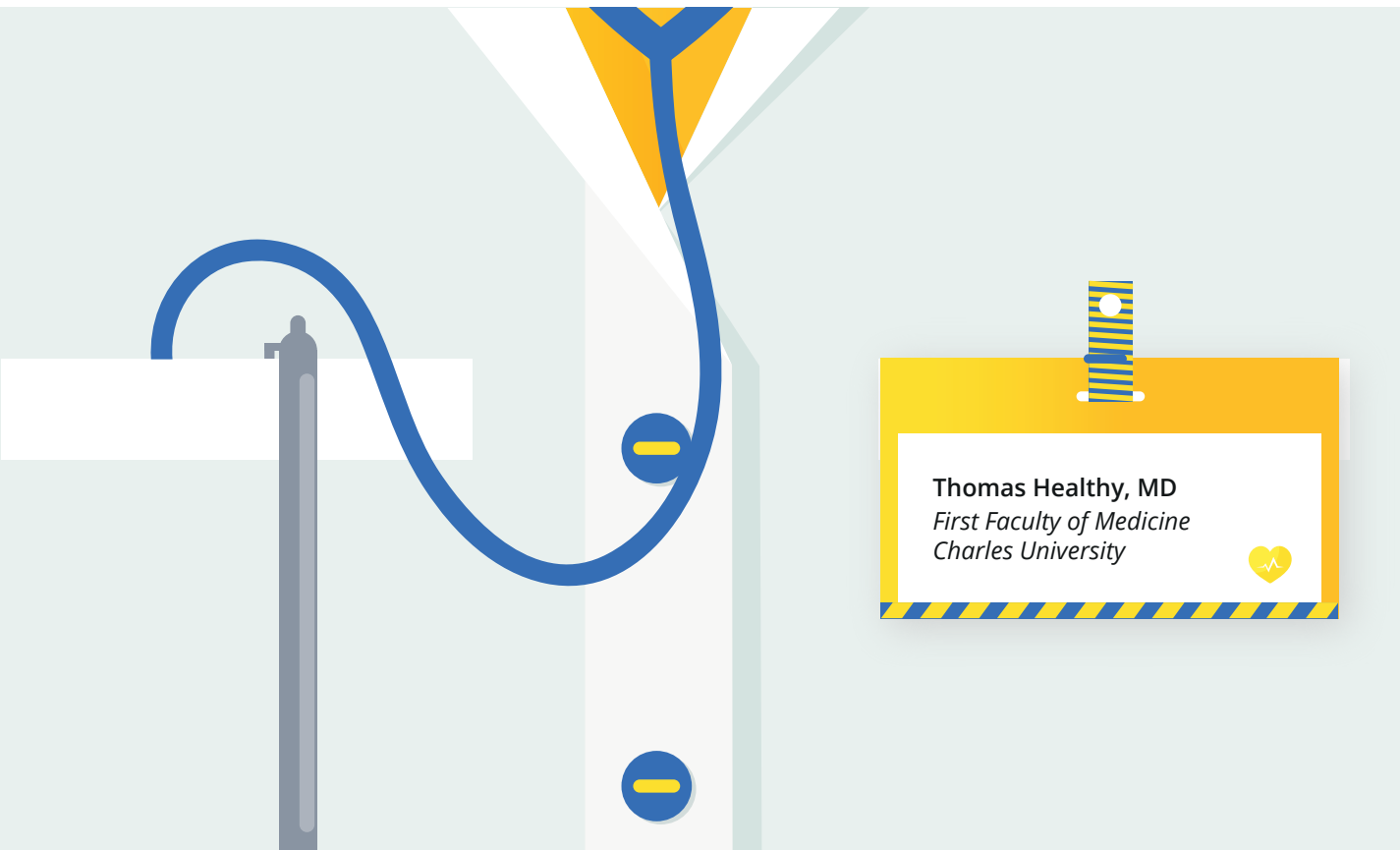


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## The SIM Centre

The use of simulators in training future physicians is currently a standard teaching method at all renowned universities. A simulation centre enables students, starting from the first year of study, to link their practical skills with theoretical knowledge using predefined clinical examples. This is why the First Faculty of Medicine established its own Centre of Medical Simulations (SIM Centre), one of the best-equipped teaching facilities of this kind in the Czech Republic. It is located in the building of the Institute of Physiology at the Albertov campus. The 'patients' in the SIM Centre are 4 sophisticated, computer-controlled manikins that imitate breathing, pulse, heart activity, and other functions of the human body. The specialised classrooms of the SIM Centre faithfully imitate for instance emergency patient admission, regular patient admission, intensive care unit, or a standard hospital department. Training in these classrooms improves the medical students' readiness to enter clinical practice.



Photo: Archive of the First FM CU

## Science and Research

The First Faculty of Medicine is a direct successor of one of the faculties that were part of the Prague university already at its foundation in 1348. This long tradition is reflected also in its scientific achievements. Among its teachers, we find for instance Jan Evangelista Purkyně, co-founder of the cell theory and discoverer of Purkinje fibres. Other important discoveries made at this faculty include the description of blood groups by Jan Janský.

Current research follows in this tradition and is often carried out in cooperation with important domestic and international science centres. According to results registered by the Research, Development and Research Council of the Czech Republic, our faculty ranks since 2007 consistently among the top research centres. Among the 35 institutions that carry out biomedical research in the Czech Republic, the ranking has repeatedly placed us on the first place.



Photo: Archive of the First FM CU

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## Research Priorities

Although research activities are carried out at all the institutes and clinics of the First Faculty of Medicine of the Charles University, research focuses predominantly on the following areas: neurological and cardiovascular diseases, oncological diseases, metabolic disorders, rheumatology, haemato-oncology, and stomatology. Each of these areas includes broad theoretical, pre-clinical, and clinical research. This strategy enables a comprehensive approach to the issues in question, ranging from aetiology and pathogenesis all the way to diagnostics and development of new treatment methods.





## Patents of the First Faculty of Medicine of the Charles University

Our faculty can boast of significant achievements also in the area of applied research. It is the owner or co-owner of 16 utility models and 11 patents related to the diagnostics and therapy of a wide range of diseases and disorders. Some of these inventions were made at the First Faculty of Medicine in cooperation with other domestic universities, the Academy of Sciences of the Czech Republic, or foreign institutions. Our faculty's portfolio includes mainly diagnostic methods and treatments of various kinds of cancer, wound healing, regenerative medicine, and stem cells.

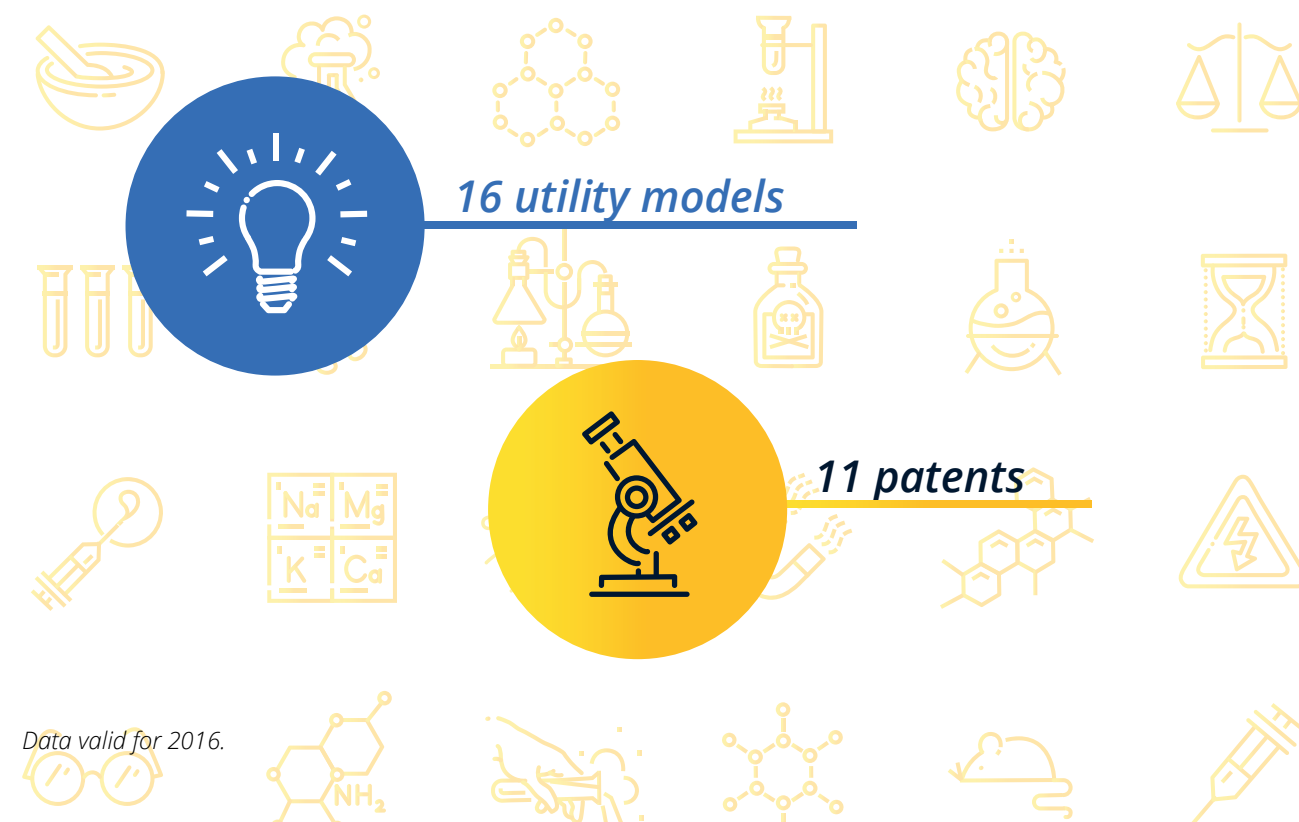


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## BIOCEV

The Biotechnology and Biomedicine Centre (BIOCEV) in Vestec, near Prague, is a place where various teams of dedicated and well-trained scientists from six institutes of the Academy of Sciences of the Czech Republic and two faculties of the Charles University, namely the Faculty of Science and our First Faculty of Medicine, work so to speak under one roof. In the context of Czech, but also European science, the BIOCEV represents a leading comprehensive platform for development of modern biotechnologies and biomedicine. Scientific research at the BIOCEV covers five main areas: Functional genomics, Cellular biology and virology, Structural biology and protein engineering, Biomaterials and tissue engineering, and the Development of therapeutic and diagnostic procedures. Each of these areas includes a number of individual research projects and teams from the First Faculty of Medicine participate in many of them.



Photo: BIOCEV Archive



The Centre for Advanced Preclinical Imaging (CAPI) has been established with the aim of implementing the most up-to-date imaging technologies in both basic and advanced research. Its equipment enables the examination of small laboratory animals using X-rays, CT, MRI, MPI, PET, SPECT scanning, and high-resolution ultrasound, as well as fluorescence and luminescence optic imaging. The Centre serves not only research teams from the First Faculty of Medicine, but also teams from other institutions from the Czech Republic and abroad. In addition to in vivo imaging as such, the CAPI participates in the development and testing of new imaging probes and technologies, in student training and 'in house' research.



Photo: Archive of the First FM CU

In 2022, the scientists and students of Faculty of Science, Faculty of Mathematics and Physics, and the First Faculty of Medicine of the Charles University should receive two new research centres located at the Albertov Campus: the Biocentre and the Globcentre. The Biocentre will focus on natural sciences, medicine, and biomedical research including genetics, molecular biology, modern imaging methods, and medicinal chemistry. The Globcentre will house research hubs dealing with the issue of global changes, geography, geology, geochemistry, and geoinformatics. The Albertov Campus is the largest building project undertaken by the Charles University in the centre of Prague over the past one hundred years.

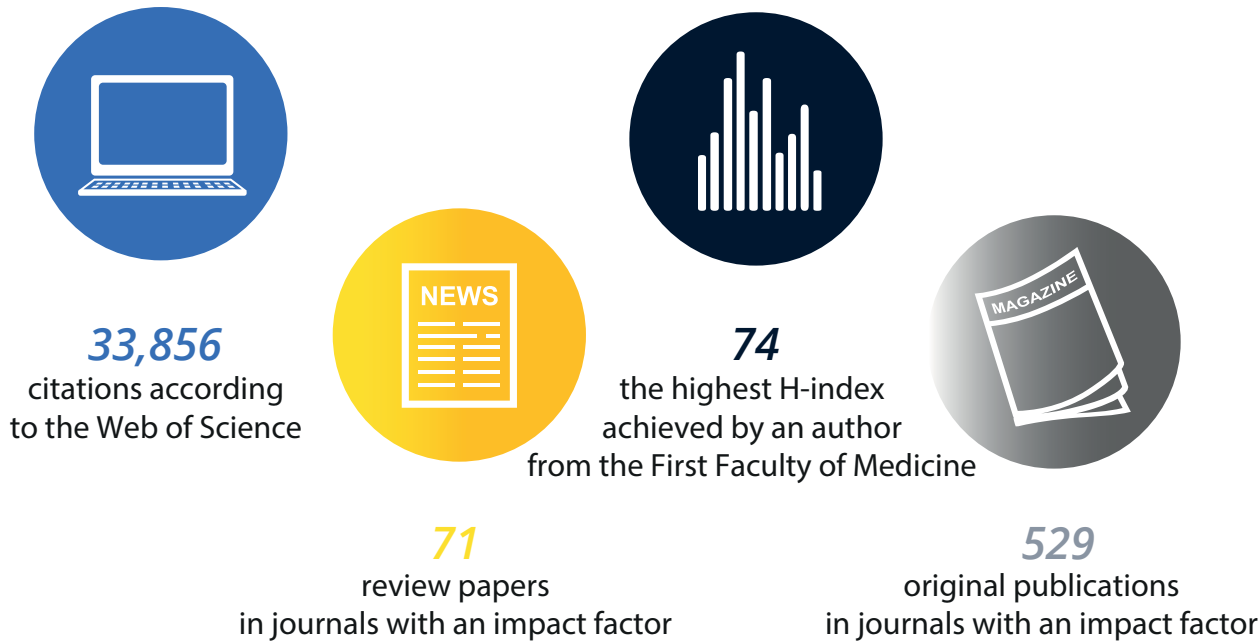


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# Bibliography

The First Faculty of Medicine takes pride in the number of publications in important journals with a high impact factor, such as the New England Journal of Medicine, Nature, Lancet Oncology, European Urology, European Heart Journal, Annals of the Rheumatic Diseases, British Journal of Haematology, International Journal of Cancer, or Intensive Care Medicine. Our faculty annually publishes about 2,000 works in various fields, with approximately 1,700 different authors from our faculty being involved.



Data valid for 2016.

# International Relations

International relations play an important role in the life of the First Faculty of Medicine. This approach is based on our core principles: openness and emphasis on quality and achievement. Student and faculty exchanges, which are part of the training, but especially international cooperation in research activities enrich the life of the faculty and bring new inspiration and impulses. Our partner institutions include numerous foreign universities and research institutes not only in Europe, but also in the United States, Australia, Mexico, and Latin America. Thanks especially to the Erasmus programme, our faculty offers the broadest range of foreign internships and study abroad among the faculties of medicine of the Charles University.

Thanks to its prestige and quality of education, graduates of the First Faculty of Medicine of the Charles University have very good prospects in finding work abroad. Both domestic and international graduates, with all their various national and ethnic backgrounds, after graduation manage to find appropriate jobs relatively easily and tend to do well in their further careers.



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*Student Associations*

There are seven different student associations active at the First Faculty of Medicine. They welcome domestic and international students from both medical and non-medical fields of study. Each association focuses on a different target group and a different medical or healthcare issue. All, however, provide a basis for volunteer activities and public awareness campaigns in the area of health.

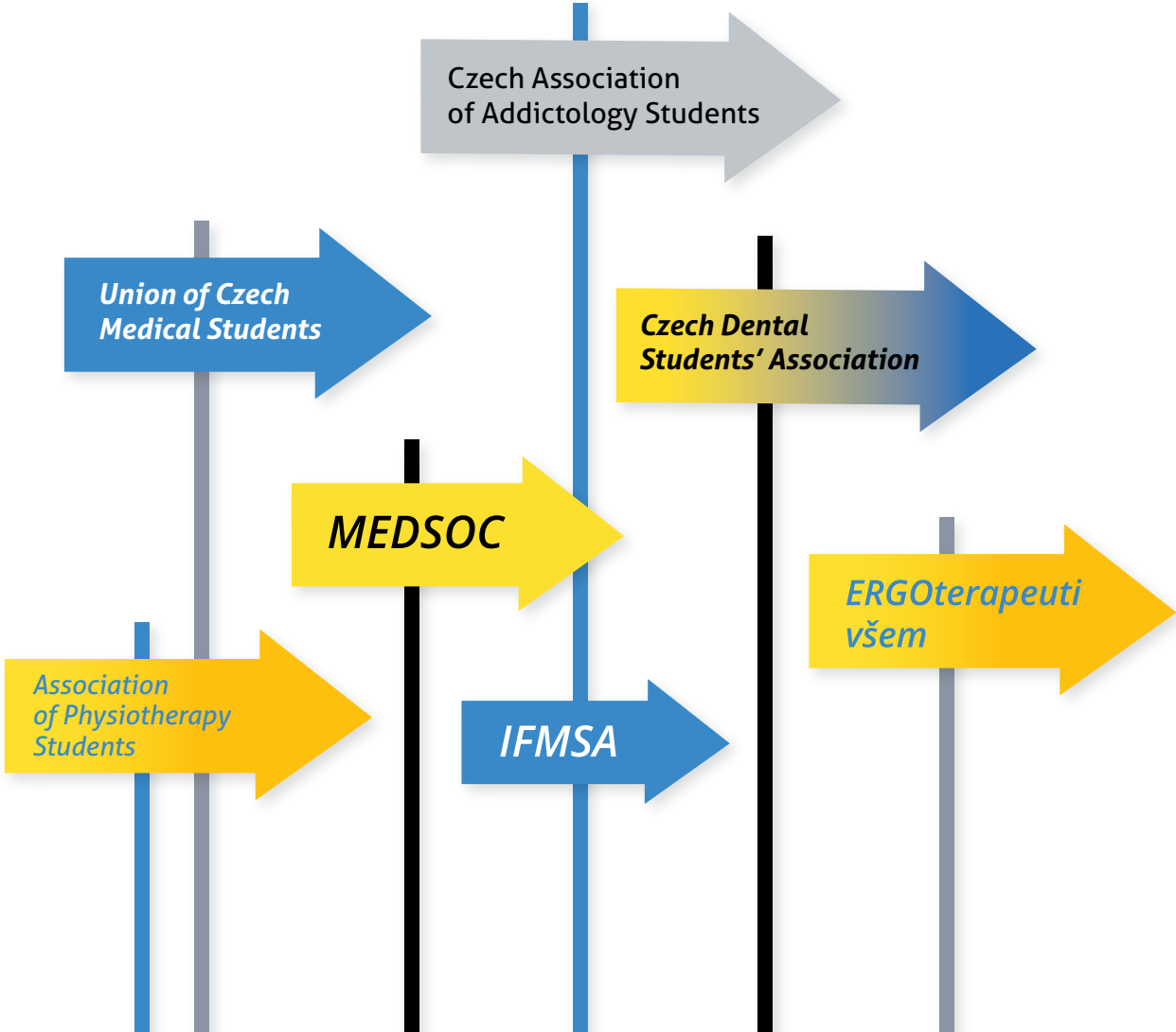


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Sought after. Selective. Successful.

