

The year 2020 in the Biomedical Centre

Facultas nostra 2021, 6 (June)

In 2020, the Biomedical Centre (BC) continued to address its dominant research topics: infectious diseases (sepsis, antibiotic resistance of bacteria, prophylaxis of viral infections in transplantology), oncological problems in connection with experimental surgery, biocompatibility, stem cells, neurophysiology and reproductive medicine.



In the past year, the BC staff participated in 16 grant projects of national grant agencies (14x AZV, 2x GAČR), projects of the OP VVV (Centre for Infectious Diseases Research, Pre-application Research for ITI and others), university projects of UNCE and Primus and several student projects of GA UK and SVV, significantly contributed to the Faculty Programme for the Development of Scientific Areas of UK (Progress Q39) and solved 11 contract research projects. In June 2020, the National Sustainability Programme project was completed, which provided 50% of the planned budget during the so-called sustainability phase of the Centre (5 years after the end of the implementation phase of the project, from 1 July 2015 to 30 June 2020). During the final review procedure (October 2020), this large-scale project was awarded the highest rating of V: excellent project results (with international significance), while the project objectives and expected results specified in the support agreement were met.

The projects FIND (Fighting Infectious Diseases, Centre for Infectious Diseases Research, Excellence in Research Challenge) and AMTMI (Application of Modern Technologies in Medicine and Industry, Pre-Application Research for ITI Challenge, in cooperation with ZČU) were continued within the framework of the OP VVV. Both projects, in addition to the provision of operational and personnel costs, enabled a significant expansion and supplementation of the investment equipment of the Centre, e.g. a new MALDI-TOF mass spectrometer or an experimental computed tomography scanner.

With the support of Charles University, the project of MUDr. K. Blahna, PhD (Sleep Dynamics of Neural Networks in Health and Disease, Primus programme for support of scientific staff in establishing new scientific groups and laboratories at the university) and the project of doc.V. Liška,

M.D., PhD (Centre for Clinical and Experimental Surgery, a programme of the Unce University Research Centres for targeted support of young and promising academics in top-quality basic research groups). The ChaPEROn (ERA ChairPosition for Excellent Research in Oncology) project continued within the European Horizon 2020 programme (ERA Chairs call). The chair was occupied by Prof. Hemminki (formerly of Deutsches Krebsforschungszentrum, Heidelberg, Germany, author of more than 1,250 papers with 29,000 citations and an H-index of 79), an excellent foreign scientist in the field of oncological research, who succeeded in several grant competitions and published 16 papers dedicated to the project during 2020. In total, the Centre produced 153 impacted publications in 2020, of which 64 were in the 1st quartile. In 2020, the Centre maintained its upward trend in publication production (Figure 1).

The Centre's contract research volume in 2020 was 1,920 thousand CZK. In 2020, negotiations were held with Intuitive Surgical, Inc., the world's dominant manufacturer and supplier of robotic surgery systems, and the Centre became a partner of the company for training doctors on robotic surgery systems in the Central European region.

prof. MUDr. Milan Štengl, PhD.
Scientific Director of the Biomedical Centre

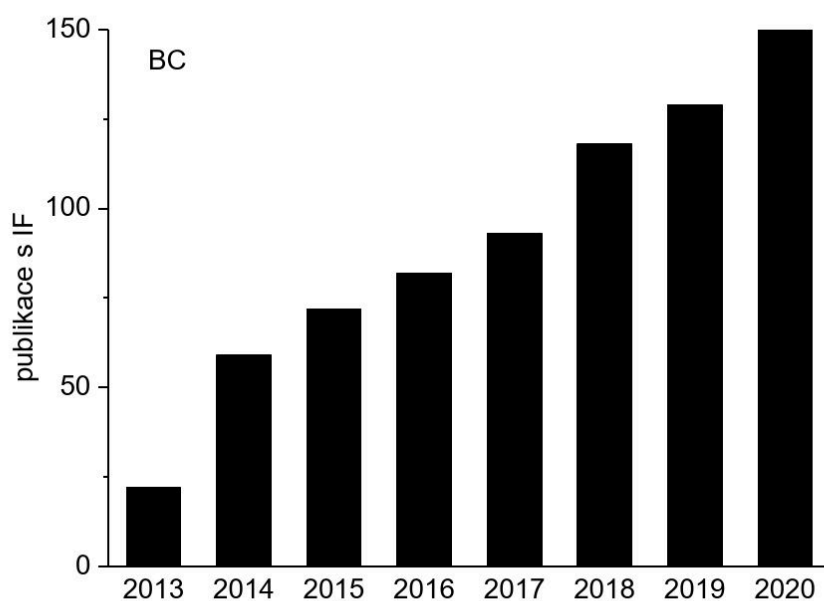


Chart 1. Development of publication activity (only publications with IF) of the Biomedical Centre.