Laying the foundation stone for the BIOCEV centre

The 7 October saw the formal laying of the foundation stone for the BIOCEV centre in Vestec by Prague. This event represented the official start of the building process for the centre and was attended by Czech Prime Minister, Jiří Rusnok. The nearly 25,500 m^2 of new laboratories and other workspaces will, in future, house around 600 employees, with 450 of these being scientific staff, including nearly two hundred students on master's and doctorate programmes at the 1st Faculty of Medicine and the Faculty of Science of Charles University. This October also sees the first anniversary of the start of BIOCEV's first research programme 'Functional Genomics'; further research programmes were started over the course of this year.

The BIOCEV project is jointly realised by seven partner institutions, six research institutes of the Czech Academy of Sciences (AS CR) and Charles University in Prague, represented by the 1st Faculty of Medicine and the Faculty of Science. "We are delighted to be laying the foundation for such a prestigious and significant project. We are in no doubt that BIOCEV will be of massive benefit to the whole of Czech science and the most significant project in the Czech Republic. The centre is well used by our master's and doctorate programmes. We further anticipate that the BIOCEV centre will help us to further focus on experimental biotechnology and biomedicine," said Václav Hampl, Rector of Charles University in Prague.

"It is precisely the cooperation between the Czech Academy of Sciences and Charles University, the two main players in science and research in the Czech Republic, that is the guarantee of the successful building of the BIOCEV centre. Furthermore, the major involvement of students in future research will be a demonstration of the combination of research and teaching that is the basic prerequisite for a high-quality education system," emphasised Vladimír Mareček, Vice-Chairman of the AS CR, during the ceremony.

This October also sees the first anniversary of the start of BIOCEV's first research programme 'Functional Genomics'. Although the new centre in Vestec is still in the construction phase, scientists were allowed to begin research at their home institutions for the time being. The content of the Functional Genomics programme has attracted a number scientists to Prague from abroad, e.g. from Canada, Australia, Belgium, Germany, India, Bulgaria and Slovakia. During the first year of research, the Functional Genomics programme and the associated national research infrastructure of the Czech Centre for Phenogenomics (CCP), succeeded in winning a European grant worth 10 million crowns. The funds gained are being used partly to provide free access to technologies offered by CCP, e.g. the creation of transgenetic models of diseases and the archiving of mouse phyla, and partly for research into the causes of diseases such as metabolic syndrome, congenital hearing loss and cardiovascular dysfunction, with the option of the proposal of regenerative gene therapy.

Further research programmes were started over the course of this year. There are four such research projects: Cellular Biology and Virology, Structural Biology and Protein Engineering, Biomaterials and Tissue Engineering and Development of Treatment and Diagnostic Methods. Around 280 employees are currently working on all research programmes. The BIOCEV scientific programme is founded on the mutual synergies of all five research programmes. These joint research projects will help to detect the causes of illnesses such as liver disorders and various tumorous, neurological and immune diseases and focus on the personalisation and individualisation of treatment, which is the future of modern medicine. The combination of research in the field of biomaterials with stem-cell research can then lead to the construction of tissue substitutes for e.g. heart valves and substitute blood vessels that are more acceptable to the human organism, significantly reducing undesired side-effects of treatments administered following transplants.