

Ceremonial opening of the recently renovated building for genetically modified poultry at the detached site of the Institute of Molecular Genetics of the Czech Academy of Sciences in Koleč

On Friday, April 22, 2022, the recently renovated poultry farm building at the IMG detached site in Koleč (Kladno district) was ceremonially opened with the participation of Petr Dráber, Director of the Institute of Molecular Genetics of the Czech Academy of Sciences (IMG) and Eva Zažímalová, President of the Czech Academy of Sciences.

“Renovation of the building in the Koleč area was necessary for its planned use (housing) and reproduction of genetically modified poultry lines. The technology of gene transfer, genetic knock-out and genomic editing using CRISPR / Cas9 systems has experienced rapid development in the last three years, mainly thanks to innovations from the IMG Laboratory of Viral and Cellular Genetics led by Jiří Hejnar,” explains IMG Director Petr Dráber.

The renovation of the building is part of revitalization of the IMG detached site. The condition of the building, which was built in 1955, did not meet the required technical or hygienic standards for the planned housing and reproduction of genetically modified poultry lines, and the building had been used as a warehouse. Now, the building was completely renovated, including the interior for the breeding of hens, wiring, new sanitary facilities and the boiler room. The total renovation costs reached more than CZK 5 million excluding VAT, while CZK 2 million was provided in the form of specific funding from the Czech Academy of Sciences.

The IMG poultry farm is located in the village of Koleč, which is located approximately 45 km from the IMG headquarters on the campus of biomedical institutes of the Czech Academy of Sciences in Krč. Breeding mainly includes genetically defined inbred, congenic and outbred chicken lines. The breeding facility produces hatching eggs, embryos and chickens for several research groups focused on chicken models. Poultry is mostly used for virological or immunological projects, currently for the study of avian leukosis viruses (which also serve as a model for the study of other retroviruses, such as human immunodeficiency virus) and genes associated with innate antiviral immunity.

“The newly renovated building and its capacities will allow us to more effectively apply genomic editing techniques using the CRISPR / Cas9 system, which are already commonly used in mammals, but are still in the basic research stage in birds. The result of our institution's long-term research in this area is a portfolio of patented technologies enabling creation of poultry lines with specific genetic modifications. These e.g. include poultry that is resistant to the ALV-J virus, which decimates poultry farming, or genetic models for virology, immunology and developmental biology,” explains Jiří Hejnar, head of the Laboratory of Viral and Cellular Genetics at IMG.

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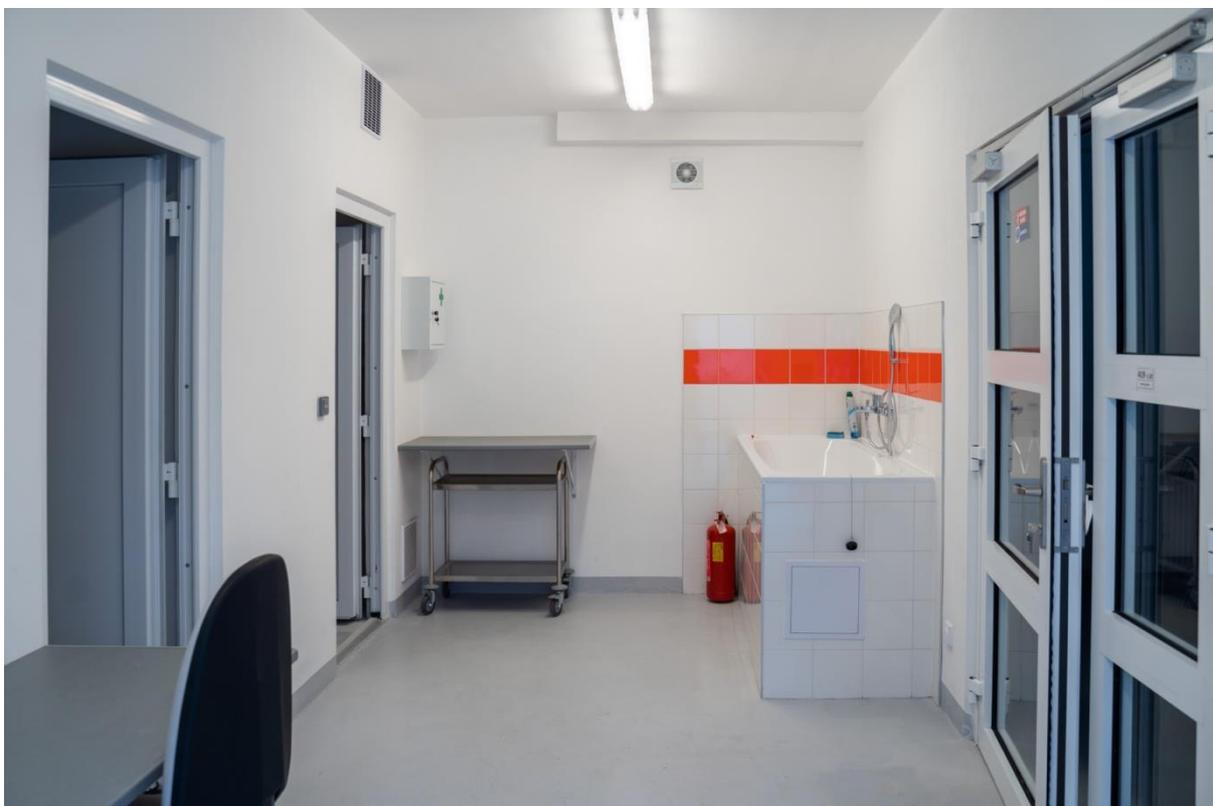
President of the Czech Academy of Sciences Eva Zažímalová together with Director of the Institute of Molecular Genetics of the Czech Academy of Sciences (IMG) Petr Dráber ceremonially open the renovated poultry farm building in Koleč. (Author: M. Jakubec, IMG)



Renovated poultry farm building at the IMG detached site in Koleč. (Author: M. Jakubec, IMG)



Martin Bilej, Vice-Chairman and member of the Academy Council, together with Eva Zažímalová, President of the Czech Academy of Sciences, and Petr Dráber, Director of the IMG, during a tour of the new interior of the poultry farm in Koleč. (Author: M. Jakubec, IMG)



Interior of the renovated building of the IMG poultry farm in Koleč. (Author: M. Jakubec, IMG)