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Johns Hopkins Medicine

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## The Johns Hopkins University and the Institute of Organic Chemistry and Biochemistry Enter into Extended Drug Discovery Collaboration

Baltimore, Maryland and Prague, the Czech Republic (July 8, 2015) – The Johns Hopkins Drug Discovery (JHDD) program, created with the mission of identifying novel drug targets arising from Johns Hopkins faculty research and translating them into new therapeutics, and the Institute of Organic Chemistry and Biochemistry, The Czech Academy of Sciences (IOCB Prague) have entered into a five-year drug discovery research agreement to develop small-molecule and peptide drugs for a range of therapeutic areas including neurological diseases, cancer, and gastrointestinal disorders.

The IOCB Prague, Czech Republic, performs fundamental research in organic chemistry, biochemistry and related disciplines oriented, in part, to medicinal applications. Among others, the HIV therapy blockbuster Tenofovir TM originated at IOCB Prague. The JHDD at Johns Hopkins represents a Pharma-experienced team of drug discovery scientists tasked with identifying novel drug targets arising from Johns Hopkins faculty research and translating them into new small molecule drug therapies. The collaboration brings together the significant expertise and experience in medicinal and peptide chemistry at IOCB Prague with the biological target ideas, screening assays, animal pharmacology, drug metabolism and pharmacokinetics expertise at JHDD.

"The complicated path that leads to drug discovery requires extensive research and teamwork," says Barbara Slusher, Ph.D., director of the Johns Hopkins <u>Drug Discovery Program</u> and a professor of neurology, psychiatry and neuroscience at the Johns Hopkins University School of Medicine. "We have made great strides in the area of drug discovery at Johns Hopkins, but our internal chemistry capacity has been a bottleneck. This new partnership providing collaboration with the network of over 600 chemistry experts at IOCB will significantly expand and build upon our research efforts."

"While millions of patients are desperately waiting for development of needed drugs, it is a smart combination of complementary expertise that is essential to make the drug discovery process effective," says Zdenek Hostomsky, Ph.D., director of the IOCB Prague. "The chemistry of peptides and small molecules including nucleosides, helicenes and steroids has been studied at IOCB Prague for decades. Every year, the institute produces more than 4 000 unique molecules whose biologic activity is tested. The collaboration with the Johns Hopkins Drug Discovery program will greatly increase our capacity to identify and develop novel drug candidates, which might otherwise remain undiscovered."

The collaboration will operate as part of the John Hopkins Drug Discovery Program, launched in 2009 as part of the Brain Science Institute. This team represents the largest integrated drug discovery group on campus. Earlier this year, the program was tasked with expanding beyond the Brain Science Institute to

aide in the development of discoveries in all therapeutic areas at Johns Hopkins. It was this expansion that led the team to seek this strategic collaboration with IOCB Prague chemistry.

This new, formal collaboration is an extension of an existing productive relationship between Dr. Slusher and the IOCB Prague chemists. The two institutions have been working together on various projects for several years and have filed multiple joint patents.

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## **About Johns Hopkins Medicine**

Johns Hopkins Medicine (JHM), headquartered in Baltimore, Maryland, is a \$7 billion integrated global health enterprise and one of the leading academic health care systems in the United States. JHM unites physicians and scientists of the Johns Hopkins University School of Medicine with the organizations, health professionals and facilities of The Johns Hopkins Hospital and Health System. JHM's vision, "Together, we will deliver the promise of medicine," is supported by its mission to improve the health of the community and the world by setting the standard of excellence in medical education, research and clinical care. Diverse and inclusive, JHM educates medical students, scientists, health care professionals and the public; conducts biomedical research; and provides patient-centered medicine to prevent, diagnose and treat human illness. JHM operates six academic and community hospitals, four suburban health care and surgery centers, and 39 primary and specialty care outpatient sites under the umbrella of Johns Hopkins Community Physicians. The Johns Hopkins Hospital, opened in 1889, has been ranked number one in the nation by *U.S. News & World Report* for 22 years of the survey's 25 year history, most recently in 2013. For more information about Johns Hopkins Medicine, its research, education and clinical programs, and for the latest health, science and research news, visit www.hopkinsmedicine.org.

## About the Institute of Organic Chemistry and Biochemistry

The Institute of Organic Chemistry and Biochemistry of The Czech Academy of Sciences, v.v.i. (IOCB Prague) is a leading scientific institution in the Czech Republic as well as on the European scale. The IOCB Prague as a separate scientific institute has history of more than 60 years of successful basic research in the organic chemistry, biochemistry, chemistry of natural products and theoretical chemistry. The IOCB Prague profits from its successes in medicinal chemistry, there are currently more than 15 drugs and other products produced by various companies from patents held by the Institute. Most remarkable is the portfolio of antivirotics developed in collaboration with KU Leuven, Belgium and Gilead Sciences, Inc. which includes the HIV market blockbuster Tenofovir ™ (Viread™, Truvada™, Atripla™, Striblid™, Complera™). The institute has established an IOCB Pipeline Program (Targeted Research Groups, see IOCB TTO for details) to select and develop ideas from the IOCB Prague scientists to further stages and help innovative products to reach the market. The institute regularly opens Junior Group Leader calls in order to invite young talented scientist from all around the world to establish a scientific group in Prague. For more information about IOCB Prague, visit www.UOCHB.cz