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Otsuka and X-Chem Enter into a Drug Discovery Research and License Collaboration

Otsuka Pharmaceutical Co., Ltd. (Otsuka) and X-Chem, Inc. (X-Chem) announce that they have signed a collaborative research agreement to advance the discovery process for new Otsuka drug compounds.

Under the terms of the agreement, X-Chem will utilize its DNA-encoded library (DEX™) screening and informatics platform to search for novel drug leads for several Otsuka discovery targets. X-Chem received an initial research fee from Otsuka upon the signing of the agreement, and is eligible for future payments based on the achievement of research and development milestones, as well as royalties and sales milestones on compounds identified under the collaboration that receive regulatory approval. Otsuka will furnish several target proteins to X-Chem, independently conduct clinical trials for any compounds identified, and retain exclusive rights to globally commercialize any products resulting from the collaboration.

The collaboration will deploy X-Chem's DEX™ libraries containing more than 120 billion individually DNA-encoded compounds. The DNA encoding of molecules enables screening and analysis of vast chemical space, supporting Otsuka's aim to increase success rates for the generation of target leads for new drugs and to shorten screening timelines.

Toshiki Sudo, executive director (drug discovery) at Otsuka noted, "We are engaged in research and development of unique therapeutic drugs that are valuable to patients, particularly in disease areas related to the central nervous system, renal circulation, and in oncology. We anticipate that our drug discovery research will be further enhanced through X-Chem's breakthrough technology, leading to the creation of innovative pharmaceuticals."

Rick Wagner, president and CEO of X-Chem commented upon the signing of the contract, "We are delighted to work with Otsuka, a company which itself has impressive discovery technologies, including their fragment-based discovery platform. Utilizing X-Chem's DEX™ platform, we hope to help create additional pathways for Otsuka to uncover candidate compounds."

About Otsuka

Otsuka is a global healthcare company with the corporate philosophy: “Otsuka-people creating new products for better health worldwide.” Otsuka researches, develops, manufactures and markets innovative products, with a focus on pharmaceutical products for the treatment of diseases and nutraceutical products for the maintenance of everyday health.

In pharmaceuticals, Otsuka is a leader in the challenging area of mental health and also has research programs on several under-addressed diseases including tuberculosis, a significant global public health issue. These commitments illustrate how Otsuka is a “big venture” company at heart, applying a youthful spirit of creativity in everything it does.

Otsuka Pharmaceutical Co., Ltd. is a subsidiary of Otsuka Holdings Co., Ltd. headquartered in Tokyo, Japan. The Otsuka group of companies employed 45,000 people worldwide and had consolidated sales of approximately USD 11 billion in 2016.

All Otsuka stories start by taking the road less travelled. Learn more about Otsuka Pharmaceutical Company on its global website at <https://www.otsuka.co.jp/en>. Learn more about Otsuka in the U.S. at www.otsuka-us.com and connect with us on Twitter at [@OtsukaUS](https://twitter.com/OtsukaUS).

About X-Chem

X-Chem, Inc. is a privately-owned biotechnology company based in Waltham, Massachusetts. The company’s mission is to apply its powerful product engine to the discovery of small molecule leads against high-value therapeutic targets. X-Chem has established partnerships with AbbVie, Alexion, Astellas, AstraZeneca, Bayer, Gilead, Janssen, MD Anderson Cancer Center, Ono, Pfizer, Roche, Sanofi, Taiho Pharma, Vertex, and several other leading pharmaceutical companies, biotechnology organizations, and academic centers. For further information on X-Chem, please visit: <http://www.x-chemrx.com/>.