X-Chem spin-off X-Biotix Therapeutics Completes $7 million Series A Financing

WALTHAM, Mass. April 24, 2018 – Small molecule drug discovery specialist X-Chem, Inc. (X-Chem) today announced that its spin-out company X-Biotix Therapeutics, Inc. (X-Biotix) has secured $7 million in a Series A financing from a group of private investors. X-Biotix, launched in 2017 out of X-Chem by Ramani Varanasi, Ph.D. and faculty members in the Department of Microbiology and Immunobiology at Harvard Medical School, plans to use the financing to advance its pipeline of novel antibiotics targeting Gram-negative bacteria. The company leverages the research of its scientific founders in essential biological pathways in bacteria and X-Chem's DNA-encoded small molecule discovery platform.

The increasing spread of bacterial resistance and a decline in antibiotics R&D in the pharmaceutical industry have severely impacted treatment options for many types of bacterial infections. Gram-negative multi-drug-resistant infections represent a critical unmet medical need globally, with over 2 million drug resistant infections in the US each year.

For detailed information about X-Biotix please visit X-Biotix's website at www.x-biotixrx.com

About X-Chem's DNA-Encoded (DEX™) Libraries and Platform

X-Chem's DEX drug discovery engine is based on a collection of DNA-encoded libraries comprising over 120 billion unique small molecules derived from iterative combinatorial chemistry processes, where the identity of each compound is recorded in a linked DNA barcode. The pooled libraries are used in low volume, affinity-based screening against biological targets, whereby ligands are 'fished out' and identified via DNA sequencing. Innovations in library design, screening methodologies, and bioinformatics underlie the exceptional performance of the DEX platform. The use of previously inaccessible chemical reactions and atom-efficient synthesis schemes generate maximal diversity and rule-of-five compliance. Parallel screens, either varying target concentration or including off-targets, mutants or known ligand competitors, allow for insight into the potency, mechanism of action, and specificity of putative hits. Proprietary statistical and bioinformatics tools identify multiple clusters of related molecules with emergent structure-activity relationships. These innovations underpin X-Chem's success against difficult and intractable targets that have failed in conventional screening, and have generated over 100 fragment, low molecular weight heterocycle, macrocycle, and irreversible covalent electrophilic lead series that have been licensed by X-Chem's partners.

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, Otsuka, Pfizer, Roche, Sanofi, Taiho, 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/.

About X-Biotix Therapeutics, Inc.

X-Biotix is a discovery, early preclinical-stage company that was spun out of X-Chem and incorporated in 2016, with a focus on delivering the next generation of antibiotics to combat multi-drug resistant Gram-negative pathogens. The company, located in Waltham, MA, is undertaking a multi-target discovery strategy to rapidly identify and validate novel small molecule scaffolds and advance them into development. For further information on X-Biotix, please visit: http://www.x-biotixrx.com/

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