

## X-Chem Enters Expanded Global Drug Discovery and Technology Transfer Collaboration with AstraZeneca

*– Latest contract extension stresses the value of X-Chem’s DEX™ platform to AstraZeneca’s long-term small molecule discovery strategy –*

WALTHAM, Mass. – January 17, 2018 – Small molecule discovery specialist X-Chem, Inc. today announced a significant expansion of their existing global drug discovery collaboration with the global biopharmaceutical company AstraZeneca. The new agreement focuses on the synthesis and delivery of custom libraries to AstraZeneca as well as the transfer of the DEX platform, allowing for in-house screening of DNA-encoded libraries at AstraZeneca. It is the third agreement between AstraZeneca and X-Chem since 2012 and builds on the success of the parties’ existing collaboration, which has resulted in numerous licenses to novel small molecules across multiple discovery programs and therapeutic indications to date.

“The DEX platform is an important pillar of our small molecule discovery strategy. This extended collaboration reflects the strength and success of our work with X-Chem over the past five years and secures long-term access to this capability,” said Dr. Menelas Pangalos, Executive Vice President of AstraZeneca’s Innovative Medicines and Early Development Biotech Unit.

“The collaboration-relationship with AstraZeneca has been one of X-Chem’s longest and most fruitful collaborations,” said Rick Wagner, Ph.D., Chief Executive Officer of X-Chem. “AstraZeneca’s decision to internalize the DEX platform and conduct DEL screening in-house is a testament to the power of the DEX technology and its importance for small molecule drug discovery in the future.”

Under the terms of the agreement, X-Chem will receive upfront technology access and license fees, as well as multi-year committed funding. X-Chem is also eligible for additional payments linked to the exercise of specific technology transfer options and the achievement of certain R&D and commercial milestones. In addition, X-Chem will receive royalties for each successfully commercialized drug that results from joint target-based collaboration programs.

### **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/>.

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