



# Medicinal Chemistry



**"We are  
experienced  
and passionate  
drug hunters."**

-Matt Clark, CEO

## Focused on Developability From Day One

No other partner understands DEL like X-Chem – our experts invented DEL-driven drug discovery and help you leverage it with unprecedented speed and clarity.

Once billions of compounds have been screened against your target with our groundbreaking DNA-encoded library (DEL) screening platform, what's next?

The X-Chem medicinal chemistry and bioassay teams put their extensive experience to work, converting your screening results to outstanding drug leads and candidates. Since quality and success go hand in hand, we concentrate intensively on quality through multiparameter optimization. Rather than just chasing potency, our teams focus on the physical properties and developability of your hits from day one.

## Transition From Hit to Lead to Candidate in Record Time

Fast drug discovery is essential in today's biopharma industry. Because we know the DEL chemistry so well, no one can compete with our speed and efficiency in following up DEL hits. You can be confident that X-Chem chemists will progress your most promising DEL outputs in an industry-leading rapid design and test loop.

Because our libraries span such a breadth of novel chemistry, every project represents a new challenge in synthetic chemistry and reagent procurement. Whether your project is addressed by small heterocycles, macrocycles, or covalent compounds, you can be sure that X-Chem scientists have seen the chemistry before. We will implement an efficient chemistry strategy to drive your program to the next level.

### RECOGNIZING PROMISE: ONLY YOUR BEST COMPOUNDS PROGRESS

- › Extensive experience informs conversion of screening hits → drug leads → candidates
- › Unrelenting focus on quality is empowered by multiparameter optimization
- › Unrivaled design-test cycle time drives progress
- › Structural data aids in molecular design
- › Integrated solution accelerates early phase drug discovery

### Increase Confidence and Reduce Risk Through a Complete, Integrated, Early-Phase Drug Discovery Solution

Our team does more than simply optimize DEL hits. We accelerate the medicinal chemistry phase of your drug discovery journey with an integrated, early phase program. We can rapidly assess multiple compound series, both DEL- and non-DEL-derived, so that you can be sure only the best and most promising compounds are progressed toward candidate. With in-house biochemistry, biophysics and computational capabilities, we operate design-test loops with unprecedented speed. In collaboration with our strategic partners, we apply structural biology resources to accelerate your process. With a full understanding of each drug's target, DMPK, pharmacology and competitive environment, X-Chem medicinal chemistry teams drive molecular design and optimization.

#### Our medicinal chemistry expertise includes:

- › Design of bispecific degraders
- › Efficient multiparameter design
- › Proactive risk reduction using computational methods
- › Ion channel and GPCR drug design: NAMs, PAMs, biased agents
- › For CNS targets, maximizing CNS penetration and  $K_{p,uu}$
- › Eliminating efflux transporter liabilities
- › Reducing hERG and other typical off-target safety liabilities
- › Optimizing efficacy and safety for covalent drugs
- › Optimizing residency time for slow reversibles

**X-Chem is the partner you need to unlock exponential possibilities in your small molecule drug discovery.**

**Find Your Next Candidate With X-Chem**

#### ABOUT X-CHEM

X-Chem, Inc. is the leader in small molecule discovery science, providing pharmaceutical and biotech companies a complete, seamless solution for screening, hit validation and lead optimization. As pioneers of DNA-encoded chemical library (DEL) technology, the company leverages its market-leading DEL platform to discover novel small molecule leads against challenging, high-value therapeutic targets. In-house lead optimization services enable clients to progress their compounds directly for even higher quality outputs. Our expertise in medicinal chemistry, custom synthesis and scale-up process chemistry enables us to support all aspects of drug discovery, supporting lead optimization through candidate identification.