X-CHEM
TAKE THE LEAD. DRIVE DISCOVERY.

DEL for RNA Targets

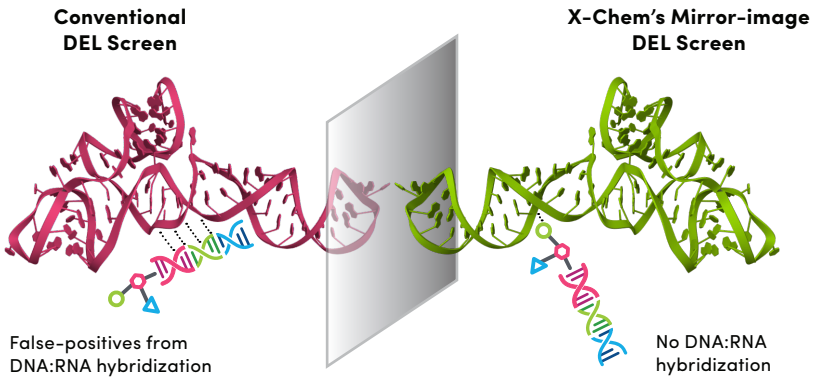
The only platform enabling large-scale RNA screening of ultra-high diverse compounds.

Mirror-image DEL Screen: Best-in-class Hit Discovery Solutions

RNA-targeting therapeutics hold promise for accessing traditionally undruggable proteins, but conventional methods fall short in chemical space coverage. X-Chem's patent-pending mirror-image RNA-targeted DEL screening breaks these barriers, offering broad chemical diversity, increased signal to noise ratio for hit identification, and a powerful new path to RNA drug discovery.

The Broadest and Deepest Chemical Exploration

Conventional DEL screens for RNA targets misidentify hits due to hybridization between RNA target and DNA tags from DEL. X-Chem's approach eliminates this, enriching only true small molecule–RNA interactions and enabling discovery of novel, accurate RNA binders.



Our Unique Advantages

Feature	Non-DEL methods (ASMS, fragment/phenotypic screen, microarray, etc.)	Other DEL Platforms	X-Chem's Mirror-image DEL for RNA
False Positive Risk	Medium	High	Low
Ligandability Assessment	Unknown	Unknown	Applicable

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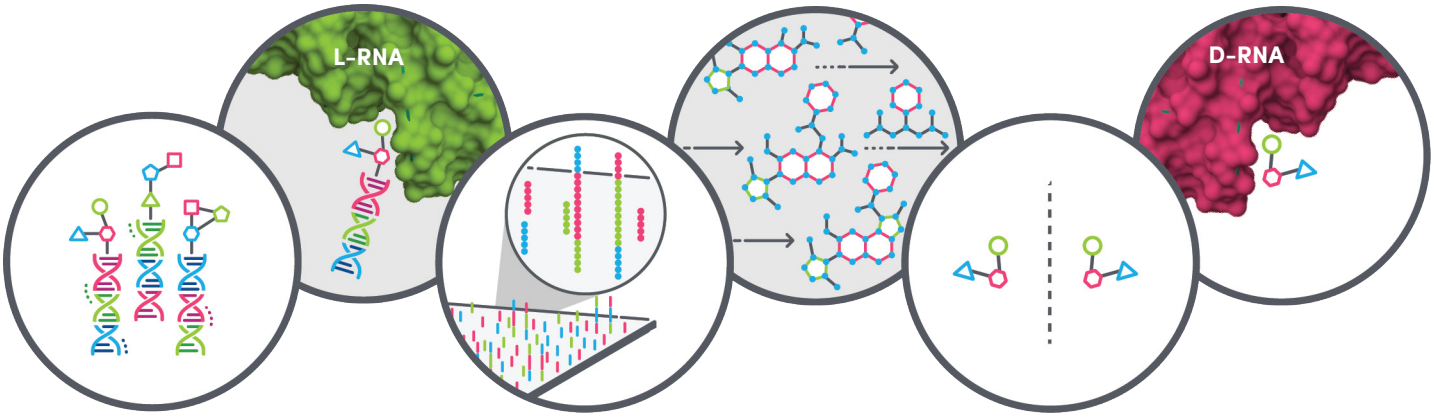
How It Works

2 Affinity-mediated selection on L-RNA, i.e. mirror-image target.

4 Statistical tools to identify enriched binders and analyze SAR.

6 Orthogonal assays confirm enantiomers binding to the natural target.



1 DEL consists of billions of diverse, drug-like compounds.

3 DNA amplification & sequencing to identify compounds in the screening output.

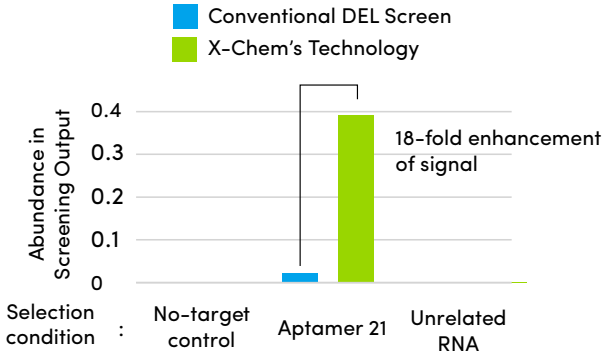
5 Synthesis of enantiomers of enriched binders.

Validated Proof of Concept

As proof of concept, our mirror-image DEL screen improved enrichment of a known Aptamer 21 ligand by 18-fold over conventional methods. This demonstrates the platform's power to uncover true binders possibly missed by traditional approaches.

Ask for our case studies on RNA expansion repeats, splice site, and riboswitch!

Recovery of Known Ligand to Aptamer 21



By partnering with X-Chem, you gain access to a unique, scalable technology purpose-built to accelerate RNA-targeted drug discovery.

Find Your Next Drug Molecule 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.

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