

TruBind™ Assay & System Integrated Solutions

LOW RISK, HIGH-VALUE TARGET-LIGAND BINDING CHARACTERIZATION PROCESS

START

**GOT A TOUGH,
HIGH-VALUE TARGET
BINDING PROBLEM?**

DIFFICULT, MIND-BENDING TARGETS

Our experienced scientists, armed with TruBind technology, eagerly tackle complex, technically challenging, high-value targets where small molecule binding has proven intractable by other techniques. *Set the bar high and we'll meet the challenge!*



TAKE
THE
LEAP



ASSAY DEVELOPMENT & VALIDATION

We'll quickly arrive at a fast yes or no answer on appropriate control binding. If yes, we will produce a validated assay, all in a couple of weeks. Now you can confidently move forward with further assay investment. *Here's to a possible huge upside!*

IS THERE TARGET BINDING?

*GET YES/NO ANSWER
IN AROUND 2 WEEKS!*

**01
PHASE**

IF NO,
STOP

IF YES,
GO

**02
PHASE**

CHARACTERIZATION QUESTIONS?

*MOA? ALLOSTERIC BINDING?
AFFINITY RANKING? TARGET ENGAGEMENT?*

CHARACTERIZE TARGET-COMPOUND BINDING

Next, let's answer critical questions related to the characterization of a small number of key compounds using the Phase 1 assay to help drive your drug discovery project forward. *Start gathering all the great data for your IND submission!*



REPEAT
PHASE 1/2

OR



INTEGRATION OF TRUBIND ASSAY & SYSTEM

When you buy your first TruBind Integrated Solution, we'll transfer your successful Phase 1 assay, you'll recoup your Phase 1 investment via reduced instrument pricing, and you'll receive very attentive support. *Let the accolades begin!*

BRING TECHNOLOGY IN-HOUSE?

*ACQUIRE INTEGRATED SOLUTION
OF ASSAY WITH SYSTEM*

**03A
PHASE**

RAMP
UP

AND/OR

**03B
PHASE**

WANT TO OUTSOURCE?

*MAKE MSI YOUR MOA
ELUCIDATION PARTNER!*

ON-GOING CUSTOMIZED PROJECT SUPPORT

Let us speed your discovery process by addressing multiple compound series and targets in parallel. Or we can undertake deeper MoA and target-compound characterization for medchem and pharmacology decision making. *Let us do the heavy lifting!*



NEW
TARGET?



EVEN MORE DIFFICULT, MIND-BENDING TARGETS

Challenge us again with your most complex and intractable targets such as GPCRs, ion-channels, RTKs, PPIs, transcription factors, fibrils, contractile proteins, and more. *Let us go again where others fear to tread!*

**GOT ANOTHER TOUGH,
HIGH-VALUE TARGET
BINDING PROBLEM?**

REPEAT

TESTED SOLUTIONS BY WORLD CLASS PHARMACEUTICAL CLIENTS

A majority of the top ten pharmaceutical and biotechnology companies worldwide have collaborated with Molecular Sensing to solve high value drug binding characterization problems impacting early discovery through IND submission. Our client partners include leading biophysics, medicinal chemistry, pharmacology and various disease project groups.

| Pharma Client | Target Type | No. of Projects | Assay Development | Secondary Screening | TruBind™ System | Publication/Presentation |
|------------------|---|-----------------|-------------------|---------------------|-----------------|--------------------------|
| Pharma 1 | BACE; Kinase; 70 S Ribosome Complex; Class A GPCR Membrane Prep | 4 | ✓ | | | ✓ |
| Pharma 2 | Kinase, Formyltransferase, Fibrils | 4 | ✓ | ✓ | ✓ | |
| Pharma 3 Group 1 | Class A & B GPCR Membrane Prep* | 5 | ✓ | ✓ | | ✓ |
| Pharma 3 Group 2 | Prolylhydroxylase | 1 | ✓ | | | |
| Pharma 4 Site 1 | Transcription Factor (NR); Ion Channel | 2 | ✓ | | | ✓ |
| Pharma 4 Site 2 | Contractile Protein complex* | 1 | ✓ | ✓ | ✓ | ✓ |
| Pharma 4 Site 3 | Zinc Transporter | 1 | ✓ | ✓ | | |
| | Microsomal membrane FADS | 1 | ✓ | | | |
| Pharma 5 | A2a GPCR Membrane Nanodisc | 1 | ✓ | | | |
| Pharma 6 | Class A GPCR Membrane Prep* & Its Soluble Membrane Protein | 3 | ✓ | | | |
| Pharma 7 Site 1 | Class C GPCR Membrane Prep & Its Soluble Membrane Protein | 1 | ✓ | | | |
| Pharma 7 Site 2 | Endosomal Protein Transporter | 1 | ✓ | | | |
| Pharma 7 Site 3 | Ion Channel | 1 | ✓ | | | |
| Pharma 8 | ATP-binding Transmembrane Transporter | 1 | ✓ | ✓ | | |
| Pharma 9 | Brain Fibrils (Tau) | 2 | ✓ | ✓ | | |
| Pharma 10 Site 1 | Soluble Blood Metalloprotein | 1 | ✓ | | | |
| Pharma 10 Site 2 | Class B Membrane Protein Prep | 1 | ✓ | ✓ | | |
| Pharma 10 Site 3 | SLC Transporters | 1 | ✓ | | | |
| Pharma 11 | Protein - Protein Convertase Interactors* | 1 | ✓ | ✓ | | |
| Pharma 12 | CDK9 Kinase* | 1 | ✓ | | | |

* Allosteric Project

Note: TruBind BSI System 100 installations began in January 2015.



COMPANY

Molecular Sensing, Inc. is a commercial stage drug discovery tools and contract research services company with headquarters and drug discovery services laboratories in Nashville, Tennessee, an R&D center in Los Gatos, California, and a European operations center near Frankfurt, Germany.

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ADVANTAGES OF TRUBIND ASSAY & SYSTEM INTEGRATION

- Provides valuable data for your high value project
- De-risks new technology acquisition
- Guarantees success of integrated assay with system
- Includes discount valued at the cost of Phase 1
- Delivers the instrument on a priority basis