

WE'VE GOT DRUG DISCOVERY DOWN TO AN EXACT SCIENCE

DRIVE INNOVATION WITH OUR COMPLETE SUITE OF CAPABILITIES

Capitalize on the value of our integrated drug discovery centers of excellence that combine scientific expertise and leading-edge technology to accelerate innovation. Our complete suite of expert solutions offers reduced compound testing cycle times, efficient internal sample transfer and rapid, data-driven decision making.



Discovery

AMRI offers comprehensive discovery biology, synthetic and medicinal chemistry, DMPK and bioanalytical services that span the continuum from hit-to-lead identification through candidate selection. You can also leverage our expertise and technology through novel business models, such as global insourcing, to meet your capacity and timeline demands.



Complex Science. Expert Solutions.

INTEGRATED SOLUTIONS FOR COMPLEX DISCOVERY CHALLENGES

Discovery Biology

Our best-in-class, customized discovery biology capabilities include:

- Protein and antibody expression, purification, conjugation and analysis (including high-resolution mass spectrometry, UHPLC, SEC MALS RI)
- Cell line development and engineering (CRISPR)
- Assay development and validation
- High-throughput screening (HTS)
- High-content screening
- Label-free screening by mass spectrometry and SPR

High-Throughput Screening Capabilities

Our world-class high-throughput screening capabilities include compound and sample management, a high-throughput robotic screening platform and advanced data informatics. AMRI's innovative instrumentation delivers efficiency for screening novel targets.

- 1536-well format for increased screening speed, reduction of compound and reagent requirements, and significantly lower overall HTS costs
- HighRes Biosolutions and Bruker Daltonics PharmaPulse MALDI-TOF/TOF high-resolution mass spectrometry for better opportunities for label-free HTS and hit discovery
- Opera Phenix™ high-content imaging system for fast, sensitive phenotypic screening

Diverse Compound Libraries

AMRI's Compound Library

Consortium (CLC): Gain access to diverse, high-quality compounds. Our emphasis is on designing novel, core compounds and templates, exploring new chemical space by first identifying a set of novel compounds and then synthesizing the right compounds, purifying them to greater than 90 percent before delivery. Our primary objective is to achieve compounds with the best chance of providing you with quality leads suitable for optimization activities.

Custom library synthesis: We offer high-quality, cost-effective custom library synthesis services for both large, diverse libraries and focused libraries. Our capabilities and technologies include:

- Dedicated team specific for scaffold and template design that includes property filters using CADD resources, parallel production, parallel purification, analytics and computational support
- High-throughput purification via auto-prep, mass-triggered, high-performance liquid chromatography (APMS from Waters, six instruments) and high-throughput analytics using multichannel UPLC-MS (from Waters, three instruments), enabling us to analyze up to 10,000 compounds per month

In Vitro Pharmacology/DMPK

AMRI's drug metabolism and pharmacokinetics (DMPK) group delivers expert solutions that span all stages of drug discovery — exploratory, hit-to-lead, lead optimization, candidate selection, IND-enabling and clinical studies. Our scientific expertise includes enzymology, analytical chemistry, mass spectrometry and pharmacokinetics.

Our complete line of capabilities includes:

- Comprehensive set of high-quality discovery assays (solubility, stability, permeability, metabolic stability, CYP inhibition/induction)
- Drug metabolite profiling, identification and synthesis of major metabolites
- Non-GLP and GLP bioanalysis of drug levels in plasma and other biological samples
- Convenient DMPK Express online ordering

Synthetic and Medicinal Chemistry

For more than 25 years, AMRI has offered extensive expertise in synthetic and medicinal chemistry, driven by the goal of discovering compounds for progression into human clinical trials.

Our diverse chemistry capabilities include:

- Structure activity relationships (SARs)/structure property relationships (SPRs) and novel target design guided by computer-aided drug design (CADD)
- Synthetic route design
- Custom synthesis
- Library design and synthesis
- Chiral separations (analytical and preparative *supercritical fluid chromatography*)
- Metabolite synthesis
- Experience with complex molecules including eicosanoids, polysaccharides and challenging reactions, as well as controlled substances and high potency compounds

AMRI is a global contract research and manufacturing organization that has been working with the life sciences industry to improve patient outcomes and quality of life for more than 25 years.