



## Charles River Launches New Retrogenix® Non-Human Protein Library

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*First-in-class in vitro library assesses off-target binding to de-risk in vivo studies*

WILMINGTON, Mass.--(BUSINESS WIRE)--Oct. 17, 2024-- [Charles River Laboratories International, Inc.](#) (NYSE: CRL) today announced the launch of the [Retrogenix® Non-Human Protein Library](#). The non-human protein library helps biopharmaceutical clients assess off-target binding to a non-human proteome to de-risk *in vivo* studies and aid in non-human species selection.

"Developed in-house using the innovative and unique Retrogenix® platform, the new library provides early insights into how therapeutics interact with non-human protein targets *in vitro*," said Aidan Synnott, Ph.D., Corporate Vice President, Global Discovery. "These early insights are generated without the lead time and expense associated with *ex vivo* tissue or *in vivo* research model studies, allowing clients to progress to safety studies, clinical trials, and IND applications with highly relevant data and increased confidence."

Confirming whether potential off-targets are conserved across species increases the interpretability of *in vivo* results and ultimately reduces risk by ensuring safety studies are conducted in an appropriate model from the outset. In addition to offering the non-human protein library, Charles River can also screen observed human off-targets against any suitable non-human homologous proteins to help inform next steps for client drug development.

### Screening for Off-Target Effects

[The Retrogenix® platform](#) offers the industry's largest library of human proteins overexpressed in human cells, with over 6,500 human plasma membrane and secreted protein clones, providing a unique screening tool for discovering primary target receptors and reliably assessing potential off-target binding issues. With the [new non-human protein library](#), Charles River is building on the Retrogenix® platform's established technology, helping clients ensure they have the right models selected prior to beginning *in vivo* studies, saving time and helping deliver safer, more effective drugs.

Off-target screening is an established part of the IND submission process, and is traditionally performed using [tissue cross reactivity \(TCR\) studies](#). Data from the Retrogenix® platform has become an established complementary or alternative data point across multiple modalities, therapeutic areas, and with international regulatory agencies.

### Driving Innovation in the 3Rs

Designed *in silico* and synthetically generated, the biosynthetic non-human protein library incorporates important tenants of the 3Rs—reduction and refinement—leveraging technological innovations to responsibly progress research.

"The integration of the Retrogenix® Non-Human Protein Library into our drug discovery portfolio enhances the precision and effectiveness of lead candidate selection," added Professor Julie Frearson, Ph.D., Corporate Senior Vice President & Chief Scientific Officer. "Technology is a cornerstone of innovation, and as we continue to drive forward change in drug development, these innovations allow us to refine our use of research models while supporting the discovery of novel medicines."

Building on the imperative to deliver on the 3Rs (Replacement, Reduction, and Refinement of research animals), Charles River launched the Alternative Methods Advancement Project (AMAP), with a dedicated pursuit of scientific and technological innovation and by aligning the Company's strategic efforts with the focus needed to advance animal alternatives.

### About the Alternative Methods Advancement Project (AMAP)

The [Alternative Methods Advancement Project](#) (AMAP) is a Charles River initiative dedicated to developing alternatives to reduce the use of animals in testing. As we enter the next frontier of drug development, AMAP will facilitate strategic and purposeful investing to lead the way toward a future where more patients receive needed treatments and medicines safely, swiftly, and successfully. In keeping with our commitment to the 3Rs, we are dedicated to pursuing scientific and technological innovations to explore new and exciting ways we can further reduce the use of animals in testing. The guidance of AMAP will help us align our investments, partnerships, product and service initiatives, and advocacy efforts as we focus on our goal of investing \$300 million over the next five years to further enhance this critical mission and drive industry-wide adoption of alternatives.

### About Charles River

Charles River provides essential products and services to help pharmaceutical and biotechnology companies, government agencies and leading academic institutions around the globe accelerate their research and drug development efforts. Our dedicated employees are focused on providing clients with exactly what they need to improve and expedite the discovery, early-stage development and safe manufacture of new therapies for the patients who need them. To learn more about our unique portfolio and breadth of services, visit [www.criver.com](http://www.criver.com).

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