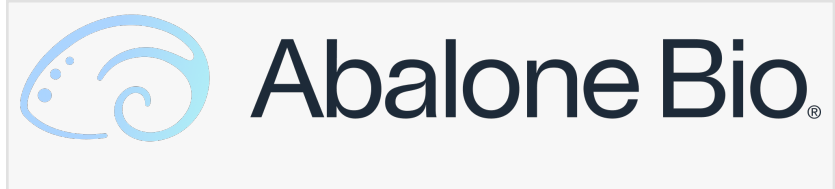


Abalone Bio and Mount Sinai Publish Preclinical Data on World's First CB2 Antibody Agonists

Abalone Bio characterizes in vitro and ex vivo activities of novel antibody agonists produced by their FAST Platform



EMERYVILLE, CA, UNITED STATES,

August 12, 2025 /EINPresswire.com/ -- [Abalone Bio](#), the only antibody drug company measuring large-scale activity data to drive AI-powered discovery of active antibody treatments for challenging diseases, has announced the [publication of a preprint](#) detailing the first public functional data for its previously disclosed cannabinoid receptor 2 (CB2) activating antibody agonists, AB120 and AB150. These findings represent the first in-depth characterization of CB2 antibody agonists and marks a major milestone in G protein-coupled receptors (GPCRs) and antibody drug development.

Detailed in vitro and ex vivo studies presented in the preprint demonstrate that AB120 and AB150 exhibit robust anti-inflammatory and anti-fibrotic effects, potentially suppressing secretion of pro-inflammatory cytokines and significantly reducing collagen expression in human precision-cut liver slices (hPCLS), an advanced model of liver fibrosis.

"The anti-inflammatory and anti-fibrotic activities produced by Abalone Bio's CB2 agonist antibodies in precision-cut human liver slices represent a mechanism of action distinct from—and potentially complementary with—existing therapies, and point the way to improved therapies for advanced liver fibrosis." said Scott L. Friedman, MD, Dean for Collaborative Research and Partnerships and Director of the [Mount Sinai Institute for Liver Research](#) at the Icahn School of Medicine at Mount Sinai; Co-Investigator, NIH/NIDDK SBIR grant 2R44DK125191-02; and Consultant to Abalone Bio.

The specificity and potency of AB120 and AB150 and inherent exclusion from the CNS by the blood-brain barrier highlight the unique advantages of antibody therapeutics over traditional small molecules to activate CB2-mediated anti-inflammatory and anti-fibrotic biological processes, including avoiding unwanted CB1 receptor activation, a common source of psychotropic and pro-inflammatory/pro-fibrotic side effects in cannabinoid-based treatments.

GPCR antibody agonists are exceedingly rare. Outside of Abalone Bio, only 7 GPCR targets have

had antibody agonists developed for them*. Abalone Bio has discovered antibody agonists for 4 more GPCRs—over ¼ of total—an industry-leading achievement enabled by its proprietary FAST platform, which directly measures experimental data of hundreds of millions of antibodies for activity in a single experiment.

“This first public release of data on molecules in our metabolic and I&I pipeline demonstrates the pharmacological activities—including agonism—that we can access with antibodies produced by our FAST platform. Our “Function First” platform is not biased or constrained by the need for existing structural data, but rather focuses on the only thing that ultimately matters—the functional activity of molecules.” said Richard Yu PhD, CEO and co-founder of Abalone Bio.

This preprint will be followed by additional publications reporting the in vivo efficacies of GPCR agonists—the first one identified by machine learning—in two disease areas.

Abalone Bio is advancing its own pipeline of metabolic disease therapies while continuing to expand its portfolio of strategic partnerships with pharmaceutical companies leveraging Abalone Bio’s FAST platform to access hard-to-discover antibody modulators of promising targets.

*Based on data available from public sources.

About Abalone Bio

Abalone Bio is revolutionizing antibody drug discovery by addressing one of the most challenging problems in pharma: the functional modulation—especially activation—of hard-to-drug membrane proteins, starting with G-protein coupled receptors (GPCRs). Through its proprietary Functional Antibody Selection Technology (FAST), Abalone Bio is the only company measuring functional activity data at scale to enable AI-driven discovery of active therapeutics. By engineering yeast cells to assess the activity of millions of antibody variants, the company produces the scale of data necessary to leverage AI to discover and create functionally active antibodies. Abalone Bio’s next-generation biologic therapies, starting in metabolic disorders and inflammation, are transforming the landscape of drug discovery.

About the Icahn School of Medicine at Mount Sinai

The Icahn School of Medicine at Mount Sinai is internationally renowned for its outstanding research, educational, and clinical care programs. It is the sole academic partner for the eight—member hospitals* of the Mount Sinai Health System, one of the largest academic health systems in the United States, providing care to New York City’s large and diverse patient population.

The Icahn School of Medicine at Mount Sinai offers highly competitive MD, PhD, MD-PhD, and master’s degree programs, with enrollment of more than 1,200 students. It has the largest graduate medical education program in the country, with more than 2,600 clinical residents and

fellows training throughout the Health System. Its Graduate School of Biomedical Sciences offers 13 degree-granting programs, conducts innovative basic and translational research, and trains more than 500 postdoctoral research fellows.

Ranked 11th nationwide in National Institutes of Health (NIH) funding, the Icahn School of Medicine at Mount Sinai is among the 99th percentile in research dollars per investigator according to the Association of American Medical Colleges. More than 4,500 scientists, educators, and clinicians work within and across dozens of academic departments and multidisciplinary institutes with an emphasis on translational research and therapeutics. Through Mount Sinai Innovation Partners (MSIP), the Health System facilitates the real-world application and commercialization of medical breakthroughs made at Mount Sinai.

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