

2020 TIBBETTS AWARD WINNER

AM Biotechnologies, LLC

(DBA Raptamer Discovery Group)



U.S. Small Business Administration



SBIR · STTR
America's Seed Fund
POWERED BY SBA

Raptamer Discovery Group specializes in the development of next-generation, high-quality DNA molecules – called Raptamers™ – that can be used as therapeutic, diagnostic, or research agents and have been deployed to combat malaria, HIV/AIDS, and influenza virus.

LOCATION

TX

Houston

PHASE III FUNDING

\$6M

FUNDING AGENCIES

DARPA

Defense Advanced Research Projects Agency - DoD

HHS

Department of Health and Human Services

NASA

National Aeronautics and Space Agency

Impact & Achievement

AM Biotechnologies, LLC (dba Raptamer Discovery Group) has created a turnkey process that allows for the creation of high-quality DNA Molecules, called Raptamers™, that can target small molecules, proteins, and whole cells, and can be used as therapeutic, diagnostic, or research agents. This process combines the rapid generation of multiple lead compounds with affordable scalability, and is a technology that has been deployed to combat malaria, HIV/AIDS, and influenza virus.

Raptamer™ next-generation DNA molecules are uniquely modified, short strings of DNA - called aptamers - that are capable of binding to a designated protein or molecular target. Raptamers™ bind with incredible strength—up to 1,700 times stronger than what is currently available—without binding to other targets. In addition to this stronger binding affinity, Raptamers™ can be developed faster and have a greater variety of functional group chemistry compared to solutions typically used to bind specific whole-cell or molecular targets, which to date have included small molecules, antibodies, or regular aptamers. These modalities are limited by their long development time, restrictions on functional group chemistry, weaker binding affinity, and higher cost. Raptamer Discovery Group provides next-generation speed and service, only possible through its proprietary discovery platform, which offers many applications in biotechnology - including for drug development, use in radiologic imaging, laboratory diagnostics, and research tool development.

Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) program funding has been instrumental in Raptamer Discovery Group's technical and commercial success. The funding has enabled the company to move their innovation from the lab into a revenue-generating company with a 14-year history, including senior scientists who have worked with the company for more than 10 years. The company's commercial success has allowed it to expand into two new lab spaces, including 500 square feet at Fannin Innovation Studio and 350 square feet at the University of Houston Incubator Labs, creating over 16 full-time jobs - all milestones that would have been unachievable without SBIR/STTR funding. Raptamer Discovery Group has developed over 42 Raptamers™ for more than 60 global customers, has received over \$6 million in investment, and \$7.5 million of non-dilutive funding from agencies; including: the National Aeronautics and Space Agency (NASA), National Institutes of Health (NIH), and the Defense Advanced Research Projects Agency (DARPA). The company has also secured funding from organizations such as the Bill & Melinda Gates Foundation, which funded the company in an effort to help target malaria in resource-limited countries.

SBIR/STTR funding has been critical to Raptamer Discovery Group's R&D efforts to create new technology, including multiple chemical innovations and technology iterations. These innovations have allowed the company to significantly expand its chemical capabilities and improve the quality of its products - in turn, enabling large pharmaceuticals, diagnostic companies, and researchers to greatly speed up and expand their development efforts.

www.raptamer.com