

SRI multi-party team selected as an awardee by ARPA-H to develop at-home screening for ≥30 types of cancers

The POSEIDON program aims to save millions of lives by detecting cancer early.

MENLO PARK, CA, UNITED STATES,
October 20, 2025 /EINPresswire.com/ -SRI, along with research partners
Foothold Labs and Triple Ring
Technologies and commercial partner
Beacon Dx Health, has been awarded
up to \$34 million from the Advanced
Research Projects Agency for Health
(ARPA-H) to develop technology as part
of the POSEIDON (Platform Optimizing



SynBio for Early Intervention and Detection in Oncology) program. This pioneering program aims to create at-home cancer screening tests capable of detecting more than 30 different cancer types in their early stages.



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Kathlynn Brown, President of SRI's Biosciences Division

"Early, affordable, and accessible cancer detection has the potential to save millions of lives, and we're proud to work with ARPA-H and our partners to bring this innovation into people's homes," said SRI CEO David Parekh. "The POSEIDON program represents another milestone in SRI's legacy of making a positive impact in the world, building on decades of developing diagnostics and treatments for cancer and other diseases."

SRI researchers are working with a team of experts to develop and commercialize this technology: Foothold Labs

will adapt its diagnostic testing platform; Triple Ring Technologies will apply bioengineering best practices to accelerate development; and Beacon DX Health, an SRI spinout, will drive commercial viability from day one. This collaborative approach builds on SRI's long history of developing deep technology and delivering solutions that impact people's lives.

SRI, through POSEIDON, will offer an entirely new scientific approach by giving people an affordable, easy-to-use, at-home method to detect metabolic products of cancerous tissues before those tissues have had a significant opportunity to grow or metastasize.

SRI's work on POSEIDON is centered around its FOX Three platform, which enables researchers to discover Molecular Guidance Systems (MGS) that bind to specific types of cancer cells. These MGS can deliver a biological payload into cells, triggering the secretion of specific molecules if cancer exists. Those molecules can then be detected in urine by using an affordable, easy-to-use sensor device test.

As part of the SRI-led team, Foothold Labs will adapt its rapid diagnostic testing platform using biosensors, AI, and machine learning to detect the molecules in urine. Its NanoRev™ device will be adapted into an at-home cancer test by integrating its modified thin-film electrochemical sensors into a small cartridge and providing associated analytics. "ARPA-H's POSEIDON program is a natural fit for Foothold's mission to bring laboratory-quality testing where it is needed most — cancer biomarker detection," said Sean McIntosh, CEO of Foothold Labs and former U.S. Navy SEAL officer.

"The ability to target cancer cells and leave healthy cells unharmed is at the heart of this program," said Kathlynn Brown, President of SRI's Biosciences Division. "SRI's expertise in developing cancer-specific peptides spans two decades, focusing on a wide range of therapeutics, imaging agents, and diagnostics. Teaming up with ARPA-H to bring affordable and reliable early cancer screening to millions of people is a testament to science and our passion to address cancer."

SRI's FOX Three platform can be used for diagnosis or treatment by delivering payloads to targeted cells while avoiding healthy tissues. The MGS is rapidly drawn into the targeted cells it binds to, carrying its payload. The payload can include a wide variety of cargos, such as protein toxins, antibodies, nucleic acids (DNA/RNA), liposomes, or nanoparticles. While many FOX Three applications have been focused on therapeutics, including recent work on RNA cancer therapy, the platform also plays a role in diagnostics. SRI researchers have developed over 50 different MGS that target 20 different cell types.

About SRI

An independent nonprofit R&D institute, SRI has an 80-year history of delivering impactful technology used by billions of people every day. We create and deliver world-changing solutions for a safer, healthier, and more sustainable future. From AI to quantum, SRI has a successful track record of delivering deep technology innovation to the real world. Headquartered in Silicon Valley, SRI has offices across the United States and in Japan. Learn more at www.sri.com.

About Foothold Labs

Foothold Labs develops ruggedized, multiplexed quantitative diagnostic platforms for use across

clinical and field environments. Its flagship NanoRev system can deliver femtomolar sensitivity and quantitation with results in less than five minutes, at a cost of less than \$35 per test, all in a handheld, battery-powered device. Co-developed with industry and DoD partners, NanoRev has demonstrated applications across human health and performance, substance use disorder monitoring, veterinary medicine, and biodefense. Learn more at www.footholdlabs.com.

About Triple Ring Technologies

Triple Ring Technologies, founded in 2005, is a leader in the engineering services market. The company is headquartered in Silicon Valley, with offices in Boston, Toronto, and Copenhagen. They partner with clients in medical device and life sciences to create new technologies, launch innovative products, and start new ventures. Their capabilities span early R&D, product development, manufacturing, regulatory approval, market access, strategic partnership, and incubation. Learn more at www.tripleringtech.com.

About Beacon DX Health

Beacon DX Health, an emerging healthcare technology company, is part of the SRI Ventures portfolio of more than 50 deep-tech startup companies. SRI's successful ventures include companies in aerospace, autonomy, AI, biotech, robotics, space, and more. Learn more at www.beacondxhealth.com.

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