Third Rock Ventures Launches Tango Therapeutics with $55 Million Series A Investment

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CAMBRIDGE, Mass.--(BUSINESS WIRE)--Third Rock Ventures, LLC today announced the launch of Tango Therapeutics, a new cancer therapeutics company discovering and developing novel medicines designed to target cancer vulnerabilities beyond mutated oncogenes to deliver transformational new therapies for patients.

Tango was launched with a $55 million Series A investment from Third Rock Ventures. The company has established a robust product engine that leverages advances in DNA sequencing and CRISPR-based target discovery to generate breakthrough medicines that will provide deeper, more sustained benefit than today's targeted therapies, and extend the benefit of available immuno-oncology agents.

"Cancers are complex genetic diseases marked by multiple lesions in each tumor. These include genes that are turned on to drive cancer growth and those that are inactivated and thus, unable to function as tumor suppressors," said Barbara Weber, M.D., Tango's interim Chief Executive Officer and a Venture Partner at Third Rock Ventures. "Loss of tumor suppressor genes is a hallmark of cancer, but the genes, themselves, are not tractable targets for drug discovery. The availability of comprehensive DNA sequencing, coupled with CRISPR-enabled target discovery, provides us with new paths to identify novel drug targets and combinations that take advantage of vulnerabilities created by loss of tumor suppressor gene function -- something we have been unable to do effectively in the past. With the sophisticated genomics tools now available, the time is right for Tango to take on this challenge and focus on patients without effective treatment options."

Tango is focused on three areas of drug development, each in well-defined patient populations currently lacking effective treatment options, and each with hallmarks of cancer that have not been targeted yet. These include:

- **Loss of tumor suppressor gene function:** A universal feature of cancer is the inactivation of genes which normally protect against tumor development. Tango is working to turn tumor suppressor gene loss from cancer's strength into a weakness by identifying associated targetable vulnerabilities, an effect known as synthetic lethality. Drugs against synthetic lethal targets have the potential added benefit of effectiveness against cancer cells without damaging normal cells.
- **Multiple oncogenic drivers:** To address the multiple genetic changes that give rise to cancer, Tango is working to identify novel targets for rational combinations that will offer more robust treatment effects than is possible with single-agent approaches. Decades of cancer research have shown that with the right drug combinations in the right patients, cancers can be curable.
- **Immune evasion:** Complementing current, immune-cell-directed cancer therapies, Tango is working to identify and target the genetic alterations in cancer cells responsible for helping them avoid immune destruction. Drugs against these targets could substantially increase the benefit of current immuno-oncology drugs without increasing immune damage to normal tissues.

Tango product engine: Putting patient selection first to accelerate discovery

What fuels each of Tango's programs is an increasingly sophisticated ability to utilize synthetic lethality, the interaction between two genes that causes cell death when both are inactivated. In cancer cells, one of these genes is inactivated by mutation; the other will be inactivated by a drug. This approach leaves normal cells largely unaffected, with the potential to greatly enhance anti-tumor efficacy and reduce associated toxicity.

The first FDA-approved example of synthetic lethality in cancer treatment is the use of PARP inhibitors for BRCA-mutant ovarian cancer. Alan Ashworth, Ph.D., a scientific Founder of Tango, discovered that combining a BRCA1/2 mutation and PARP inhibition creates synthetic lethality. Recent data show that continuing treatment with a PARP inhibitor after chemotherapy in patients with BRCA-mutant ovarian cancer extends progression-free survival for more than two years, compared to placebo. The Tango product engine is designed to systematically discover other such context-specific vulnerabilities, uncovering weaknesses created by genetic alterations in cancer and targeting them for therapeutic benefit.

In executing this strategy, Tango will upend the traditional paradigm by doing target discovery in cancer subgroups with a pre-defined patient selection approach. The company will use data from DNA sequencing of patient-derived tumor samples to define genetic contexts, and deploy CRISPR-based target discovery techniques in those cancer subtypes to identify novel drug targets.

Tango's success will be driven by its depth of understanding of the genetic subtypes of cancer, and corresponding insights into novel drug targets and combinations uniquely relevant to each subtype. By shaping discovery efforts in this way, Tango has the potential to reach the clinic quickly, and with a clear plan for identifying the patients most likely to benefit from each new treatment, an approach that will increase both speed and probability of success in translating novel target discoveries into transformational new medicines for patients.

World-leading team spanning diverse disciplines

The Tango management team includes recognized leaders in target discovery, cancer biology, functional genomics, translational medicine and company building. Company leaders include Barbara Weber, M.D., interim Chief Executive Officer; Cary Pfeffer, M.D., interim Chief Business Officer; Daniella Beckman, C.P.A., Chief Financial Officer; Alan Huang, Ph.D., Senior Vice President, Head of Biology; John Maxwell, Ph.D., Vice President, Head of Chemistry; and Janid Ali, Ph.D., Vice President, Head of Biochemistry.

The Tango founders are a group of internationally recognized scientists and clinicians who have shaped the current state of knowledge and practice in cancer biology and genetics, translational medicine and CRISPR technology:

- Alan Ashworth, Ph.D., FRS, President of the University of California San Francisco Helen Diller Family Comprehensive Cancer Center
- José Baselga, M.D., Ph.D., Physician-in-Chief at Memorial Sloan Kettering Cancer Center
- Levi Garraway, M.D., Ph.D., Senior Vice President of Global Oncology at Eli Lilly and Company
- William Kaelin, M.D., Professor in the Department of Medicine at the Dana-Farber Cancer Institute, Harvard Medical School and a Howard Hughes Medical Institute Investigator
- Timothy K. Lu, M.D., Ph.D., Associate Professor of Biological Engineering, Electrical Engineering and Computer Science at the Massachusetts Institute of Technology
- Antoni Ribas, M.D., Ph.D., Professor of Medicine, Surgery, and Molecular and Medical Pharmacology at the University of California Los Angeles

About Tango Therapeutics

Tango Therapeutics is a biotechnology company developing novel medicines for patients by discovering and drugging context-dependent vulnerabilities in cancers. Tango was launched in 2017 by Third Rock Ventures and is headquartered in Cambridge, Mass. For more information, please visit www.tangotx.com.

About Third Rock Ventures

Third Rock Ventures is a leading healthcare venture firm focused on disruptive areas of science and medicine to discover, launch and build companies that make a dramatic difference in people's lives. By combining our team's scientific vision, strategic leadership, operational expertise and innovative deal-making capabilities, we nurture bold ideas that translate into successful business enterprises. Recognizing that the best way to create value for our investors is to create value for patients, our companies are built on a solid foundation of science, medicine, people and business strategy. For more information, please visit www.thirdrockventures.com.

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