Tizona signals full court press against regulatory T cells with $43M series B

By Marie Powers
News Editor

After quietly huddling in 2015 while it filled out its C-suite and lined up a manufacturing deal, Tizona Therapeutics Inc. went on the offense with a fast break into immunotherapy, scoring a $43 million series B round. The financing was co-led by Abingworth and Canaan Partners with investments from Lightstone Ventures and existing series A investors, including MPM Capital, Amgen Ventures, Astellas Venture Management and Interwest Partners.

"It's very nice to have that behind us," Pablo Cagnoni, Tizona's president and CEO, told *BioWorld Today*. "We had a great reception from the venture capital community when we went out to raise the series B. There was a lot of interest in the company. The fact that we had a terrific group of founders, a fantastic team with a lot of experience in this area and a relatively near-term clinical asset were all very important factors in the amount of interest we received."

The proceeds will be used to advance the company's lead anti-CCR4 monoclonal antibody program, designed to induce antitumor activity by depleting regulatory T cells (Tregs), which are needed to establish and maintain an immunosuppressive tumor microenvironment. The South San Francisco-based company also plans to continue preclinical work on a pair of programs targeting interleukin-35 (IL-35) – an immunosuppressive cytokine predominantly expressed by Tregs – that include IL-35 antagonists to treat cancer and IL-35 agonists to treat autoimmune diseases. In addition, Tizona has two undisclosed earlier-stage assets.

With seed funding from MPM Capital, Tizona was launched at the end of 2014 by six scientific co-founders: Charles Drake, professor of oncology, immunology and urology at the Johns Hopkins Sidney Kimmel Comprehensive Cancer Center; Vijay Kuchroo, director of the Evergrande Center for Immunologic Diseases at Harvard Medical School; Wayne Marasco, professor of cancer immunology and virology at the Dana-Farber Cancer Institute and professor of medicine at Harvard Medical School; Drew Pardoll, professor of oncology, medicine, pathology and molecular biology and genetics at Johns Hopkins University School of Medicine; Dario Vignali, vice chairman and professor of immunology at the University of Pittsburgh School of Medicine and co-leader of the Cancer Immunology Program and co-director of the Tumor Microenvironment Center at the University of Pittsburgh Cancer Institute; and Jedd Wolchok, chairman of clinical investigation, chief of the melanoma and immunotherapeutics service and associate director of the Ludwig Center for Cancer Immunotherapy and professor of medicine at Weill Medical College of Cornell University, Memorial Sloan-Kettering Cancer Center.

In addition to the co-founders, Ana Anderson, assistant professor of neurology at Harvard Medical School and a faculty member of the Evergrande Center for Immunologic Diseases, joined Tizona's scientific advisory board.

'ENOUGH CAPITAL TO TAKE LEAD PRODUCT INTO CLINIC'

When Cagnoni became Tizona's first employee on May 1, 2015, the company was in the midst of a series A raise, which closed in September at more than $27 million by adding Amgen Ventures to the syndicate. Cagnoni was fresh from Onyx Pharmaceuticals Inc., where he had moved from executive vice president of global R&D development and technical operations to president when the company was acquired by Amgen Inc. for $10.4 billion. (See *BioWorld Today*, Aug. 27, 2013.)

A pharma veteran, Cagnoni previously served as senior vice president and global head of clinical development at Novartis Oncology, where he oversaw clinical development, operations, pharmacology and correlative sciences for the oncology pipeline. He also held senior positions at Allos Therapeutics Inc., acquired in 2012 by Spectrum Pharmaceuticals Inc., and OSI Pharmaceuticals Inc., acquired in 2010 by Astellas Pharma Inc. (See *BioWorld Today*, May 18, 2010, and April 6, 2012.)

As the management team came together, "pretty soon we decided to raise another round of financing so we would have enough capital to take our lead product into the clinic," Cagnoni said. The combined $70 million in equity financing will give Tizona a runway of more than two years to achieve that mission and allow the company to double in size, to approximately 25 employees, by year-end.

"We selected a group of investors that would bring to the table not just dollars for the series B but also strong backgrounds in the space and deep pockets for potential future rounds," he added.

The technology at Tizona – named for the sword carried by the legendary Spanish military leader, El Cid, and an allusion to fighting cancer – is a different approach to immuno-oncology, according to Cagnoni.

"A lot of other immuno-oncology companies are focused on defective T cells – whether to redirect, expand or remove the brakes," Cagnoni said. Tizona's thesis is that the anti-CCR4 program, developed in Marasco's lab at Dana-Farber, will create a more hospitable environment for effective T cells to attack cancer when used in combination treatments.

The company is establishing collaborations with its scientific founders "to better understand whether regulatory T cells play a more prominent role in certain tumors," he added. Although research suggests that Tregs cells play a more prominent role in creating immunosuppression in the microenvironment in some tumor types than others, "quite honestly, the data are lacking. One of the ways we're going to differentiate the company is to understand that relationship better."

The second program targeting IL-35, using foundational research developed by Vignali, gives Tizona the ability both to develop an antagonist that would reverse immune suppression in the tumor microenvironment and lead to an effective antitumor immune response and to develop an agonist to enhance the activity of IL-35 to help modulate systemic attacks associated with autoimmune diseases.

Once the anti-CCR4 asset enters the clinic, Tizona's goal is to move one successive candidate into the clinic each year. The company plans to begin holding conversations with researchers at potential trial sites in the second half of the year, with an eye to crafting a strategy that will allow for rapid and efficient patient enrollment. Ultimately, pivotal trials will be conducted with the goal of global approvals, "but we're many, many years away from that," Cagnoni said.

Chief Operating Officer Jeremy Bender, who moved to Tizona in July 2015 from Sutro Biopharma Inc., also of South San Francisco, said the company will cast a wide net for "the right" partners, either on a global or regional basis.

"We're not in a rush to establish any partnerships," Bender said, "but there has been a fair amount of interest in the platform, and some of those discussions are ongoing."