

Newco news

Albatroz launches with \$3M in seed funding to tackle new target for solid tumors and arthritis

By Tamra Sami, Staff Writer

Albatroz Therapeutics Pte Ltd. has secured \$3 million in seed funding to develop therapeutic antibodies against a new target that degrades the extracellular matrix, a key contributor to cancer and arthritis.

Cancer that has metastasized is notoriously difficult to treat and accounts for most cancer deaths, and Singapore-based Albatroz has secured exclusive rights on a highly specific target that blocks tumor growth and recurrence, including a range of therapeutic antibodies that inhibit that target.

“Degradation of the extracellular matrix is a critical component of both tumor growth and arthritis; however, candidate drugs against this process have been limited in their use due to toxicity profiles,” said Albatroz co-founder and CEO Fred Bard.

Many companies have been trying to stop the extracellular matrix (ECM) from breaking up because when a tumor grows, the ECM must degrade and break up to allow the tumor to grow, Albatroz co-founder and Chief Business Officer Guy Heathers told *BioWorld*.



Guy Heathers, co-founder and chief business officer, Albatroz

With a background in biochemistry, Heathers is a serial biotech entrepreneur with more than 30 years in the industry. He moved from the U.K. to Singapore around 2000, and he ran an informal networking session in Singapore called Biobeers where he met Bard, whose team had worked for a decade on some research-grade antibodies to inhibit a new pathway involved in ECM degradation.

While at the Institute of Molecular and Cell Biology (IMCB), at the Agency for Science, Technology and Research (A*STAR), Bard discovered a pathway that controls protein glycosylation and drives ECM degradation. The study of the GalNAc-T activation (GALA) glycosylation pathway led to the discovery of a new target, which becomes exposed at the cell surface after glycosylation.

Activation of the target occurs specifically in tumors and arthritic synovial membranes. Albatroz’s targeted antibodies have high specificity for this target selectively reducing ECM degradation while minimizing toxicity.

Bard’s team had developed research antibodies that were able to stop a tumor growing as well as to stop the metastases. Founded in 2020 with an exclusive license from A*STAR, Albatroz is using the funding to accelerate the development that took place in Bard’s lab. The focus is on making a therapeutic antibody that does the same thing as the research antibodies.

A second potential indication is arthritis, in which the synovial membrane is degraded in arthritic joints due to the degradation of the ECM. Bard’s team found that the research antibodies inhibited this protein, inhibiting cartilage degradation in arthritic joints.

The team has identified some lead candidates that are in preclinical development and could enter the IND-enabling phase in the next six to nine months. The team will focus first on solid tumors and look to partner early, Heathers said.

Inhibiting ECM degradation is not a new concept. It has been a focus of several companies over the years, but “they have mainly looked at other proteins called matrix metalloproteases, which are proteases that break peptide bonds in the ECM.

“The problem is, they are quite toxic. Bard and his group found a different molecule called calnexin that cuts the disulfide from the ECM.

“As far as we know, we’re the only company focusing on this target.”

The seed funding in Albatroz was led by Outram Bio and Seeds Capital and should take the team to identification of the lead candidate and most of the way to the IND, Heathers said. He pointed out that the \$3 million is in private funding, but the team has also garnered grant funding from A*STAR and is able to double up on public and private funding in Singapore.

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Maturation of Singapore biotech

Although Singapore is a small market, there is quite a bit of funding available, Heathers said. For years, big pharma has been manufacturing in Singapore, but over the last 20 years, the transition of research funding is starting to pay off, and homegrown biotechs are now starting to emerge from that large-scale effort.

But what is lacking is experienced drug development expertise. The government has focused on the research side but not as much on the development side, so “there is a need for companies like us to reach out to Europe and the U.S. for that development expertise.”



*Christopher Tan,
partner, Outram*

“We have to find ways to spin out innovative, creative technology and look to partner at an early stage to get traction in that environment,” Heathers said.

Early stage life sciences investing in Singapore is getting more interesting, and numerous spinouts are now emerging. A*STAR has spun out 15 to 20 companies every year, Outram Bio partner Christopher Tan told *BioWorld*.

Headquartered in Singapore, Outram invests in drugs, diagnostics and digital solutions developed by companies with a presence or interest in Asia.

“We want to be the lead investor if the research is coming out

of Singapore,” he said. “The three things that excited us about Albatroz were the science, the market opportunity and the team,” said Tan, who gained a seat on Albatroz’s board.

Albatroz was the first recipient of [Amgen Inc.](#)’s “golden ticket” competition in Singapore and will be awarded a one-year free residency in [NSG Biolabs](#)’ fully equipped, BSL-2 laboratory, as well as additional support from Amgen’s scientific and business leaders.

With the science parks and the government investment in research, more than \$20 billion has been invested in biotech over the last two decades, and the pace of investment is elevating, according to Tan.

In the early 2000s, the focus was on attracting big pharma to Singapore to build manufacturing plants, and today eight of the top 10 pharma companies have manufacturing plants in Singapore.

But most of them don’t have R&D arms in Singapore, and the government is making a concerted effort to create its own IP to develop a thriving ecosystem. A big advantage in Singapore is the connectivity of the health care system, and the government is focused on precision medicine and longitudinal studies, and the small size of the population and integrated networks lends themselves to these areas.

“It’s up to us to help young companies interact with heads of R&D and M&A and bring in and build more awareness about what is happening in this part of the world,” Tan said.