



Vitrafy Life Sciences Ltd

16th October 2023

Vitrafy Achieves Outstanding Phase 1 T-Cell Results with Goal To Optimise CAR T-Cell Therapy

Vitrafy Life Sciences Limited (“Vitrafy” or “the Company”) and Texas based BioBridge Global (“BBG”) have collaborated to complete non-clinical viability studies on cryopreserved T-cells, with outstanding results.

Utilising Vitrafy’s vertically integrated cryopreservation solution, BioBridge Global has completed T-cell testing on three separate donors to measure the cell viability after cryopreservation. T-cells are the crucial raw material for the novel CAR T-cell therapies which are rapidly evolving forms of cancer treatment for critically ill patients. BioBridge Global’s Flow Cytometry data confirms that T-cells cryopreserved using Vitrafy’s cryopreservation solution have viability comparable to fresh T-cell samples.

“The results produced are impressive with significantly high post thaw viability of 94%, well above industry standards. This is a huge leap forward for Vitrafy and its potential to positively impact this area of healthcare”, says CEO and Co-Founder, Brent Owens.

Cancer stands as a leading cause of death in Australia, with 49,000 people dying per year: the equivalent of 135 people a day ¹. In the US, it is far greater with 602,350 deaths being attributed to cancer in 2020².

However, hope is on the horizon as medical science continues to develop revolutionary treatments such as CAR (Chimeric Antigen Receptor) T-cell therapy. To date, many cancer patients treated with CAR T-cell therapy have gone into complete remission. For some, the clinical effects are profound and sustained; for example, two CAR T-cell treated leukemia patients reached complete remission in 2010 and have remained cancer free for over a decade³.

These groundbreaking treatments rely on high quality advanced manufacturing processes that require cryopreservation to achieve success. One of the primary obstacles is the cost associated with these therapies, making them inaccessible to many patients, with the average cost per treatment ranging from US\$500,000 to US\$1 million⁴.

“The prohibitive cost is a major limitation to these therapies being available at scale. The focus for Vitrafy is to make efficiencies in the manufacturing process, reducing the cost for patients whilst retaining the quality of the treatment to give the best chance of success. Effective T-cell cryopreservation is a big step in that direction as the quality of these cells has a major impact on how quickly the treatment can be available for patients,” says Mr. Owens.

The global cell therapy market size was valued at US\$21.6 billion in 2022 and is expected to expand at a CAGR of 14.15% from 2023 to 2030. Vitrafy has identified the revolutionary CAR T-cell therapy as its highest commercial and social value offering, with a significant opportunity to lead the way in setting new quality standards utilizing its innovative cryopreservation solution.

“We’re thrilled to achieve these impressive results in collaboration with BioBridge Global,” says Mr. Owens. “We believe that our cryopreservation technology has the potential to optimise CAR T-cell manufacturing processes with the goal of providing a better-quality treatment for patients.”

ENDS

For media inquiries, please contact:

Nicole Ashby
Communications Manager
Vitrafy Life Sciences
M: 0432 686 171
E: nashby@vitrafy.com
W: www.vitrafy.com

About Vitrafy

Vitrafy, an Australian biotechnology company founded in 2018, has designed and developed an innovative solution for the advancement of biological cryopreservation including cryopreservation medical devices and integrated software.

Vitrafy’s mission is to leverage its vertically integrated cryopreservation solution to improve the efficiency, transparency, and certainty of healthcare treatments, preserving life.

About BioBridge Global

BioBridge Global, a San Antonio, Texas-based nonprofit, integrates donor-to-patient services to enable the future of biotherapeutic solutions, including blood, tissue and advanced therapies. Through its subsidiaries – South Texas Blood & Tissue, QualTex Laboratories and GenCure – BioBridge Global provides products and services in blood resource management, cellular therapy manufacturing, donated umbilical cord blood and human tissue, as well as testing of blood, plasma, tissue and cellular products for clients in the United States and international markets. It supports the development of advanced therapies by providing access to starting materials, testing services, biomanufacturing and clinical trials support. BioBridge Global is committed to saving and enhancing lives through the healing power of human cells and tissue. Learn more at BioBridgeGlobal.org.

References

1. Australian Institute of Health and Welfare 2021, Cancer In Australia 2021, Australian Government, accessed 2nd October 2023, <https://www.aihw.gov.au/reports/cancer/cancer-in-australia-2021/summary>
2. Centers for Disease Control and Prevention 2023, Cancer Data and Statistics, U.S. Department of Health & Human Services, accessed 2nd October 2023, <https://www.cdc.gov/cancer/dcpc/data/index.htm>
3. White, L. & Mackenzie, B. 2020, CAR T-cell therapy treatment helps cancer patient beat near impossible odds, Australian Broadcasting Corporation, accessed 2nd October 2023, <https://www.abc.net.au/news/2020-11-24/defying-cancer-odds-with-car-t-cell-therapy-treatment/12900720>
4. WebMD, Navigating the Financial Aspects of CAR T-Cell Therapy, January 2023, accessed 2nd October 2023, <https://CAR-T-Cell-Therapy:How-to-Manage-Costs-and-Get-Financial-Assistance> (webmd.com)