ASX ANNOUNCEMENT

22 May 2026

Final US Army Phase II Platelet Results

Vitrafy announces the successful completion of the Phase II in-vitro study with United States Army Institute of Surgical Research (part of the Defense Health Agency) ("**USAISR**"). Excellent results were achieved using the Vitrafy cryopreservation ecosystem across all tested protocols when compared to existing regulatory and quality guidelines for platelet use.

Highlights

- All protocols tested exceeded the prescribed regulatory and quality guidelines for the use of platelets in humans.
- Importantly, the 3% DMSO no-wash protocol achieved an average 94% post-thaw recovery - outperforming all other protocols on all critical criteria, including platelet recovery, clot strength and platelet receptor retention.
- A no-wash solution removes the need for specialised pre-freeze and post-thaw processing at the point of use — enabling platelet stockpiling, preparedness and deployment in regional hospitals, emergency response and battlefield settings.
- The results of this study position Vitrafy to address this market gap with a differentiated, category-first offering, in settings that are currently constrained or unavailable – independently validated by the U.S. Army.

Overview

Vitrafy Life Sciences Limited (ASX: VFY) ("**Vitrafy**" or "**the Company**") today announces the final results of Phase II in-vitro testing in a platelet cryopreservation study conducted by the USAISR, in Texas, USA, using Vitrafy's cryopreservation ecosystem.

Building upon the Phase I results, the Phase II USAISR in-vitro results highlight that all protocols tested via Vitrafy's cryopreservation ecosystem outperform the existing regulatory and quality guidelines currently set for the use of platelets.

With no commercially available frozen platelet product on the market, there is currently no FDA or AABB (USA) standards that exist for cryopreserved platelets. Therefore, all units were assessed against commonly accepted liquid-stored (fresh) platelet quality metrics, all of which were met or exceeded.

The Vitrafy ecosystem delivered outperformance across the key measures most relevant to platelet performance and transfusion: post-thaw recovery, clot-forming strength, and retention of the critical platelet surface receptors required for hemostatic function.

The Phase II in-vitro study is the largest blood platelet testing program completed to date using the Vitrafy cryopreservation ecosystem. It provides independent, U.S. military-authored validation that Vitrafy's cryopreservation ecosystem enables effective cryopreservation of blood at commercial volumes.

Phase II Results — Post-Thaw Platelet Recovery

Phase II tested apheresis platelets from 20 donors across three cryopreservation protocols using Vitrafy's cryopreservation technology: a no-wash 3% DMSO protocol, a no-wash trehalose-based protocol, and the 6% DMSO wash protocol[1]. All samples were cryopreserved and thawed using Vitrafy's cryopreservation ecosystem.

The no-wash 3% DMSO protocol delivered 94% mean post-thaw platelet recovery — outperforming both the 84% achieved using a 6% DMSO wash-based standard and 78.9% achieved via the Trehalose protocol:

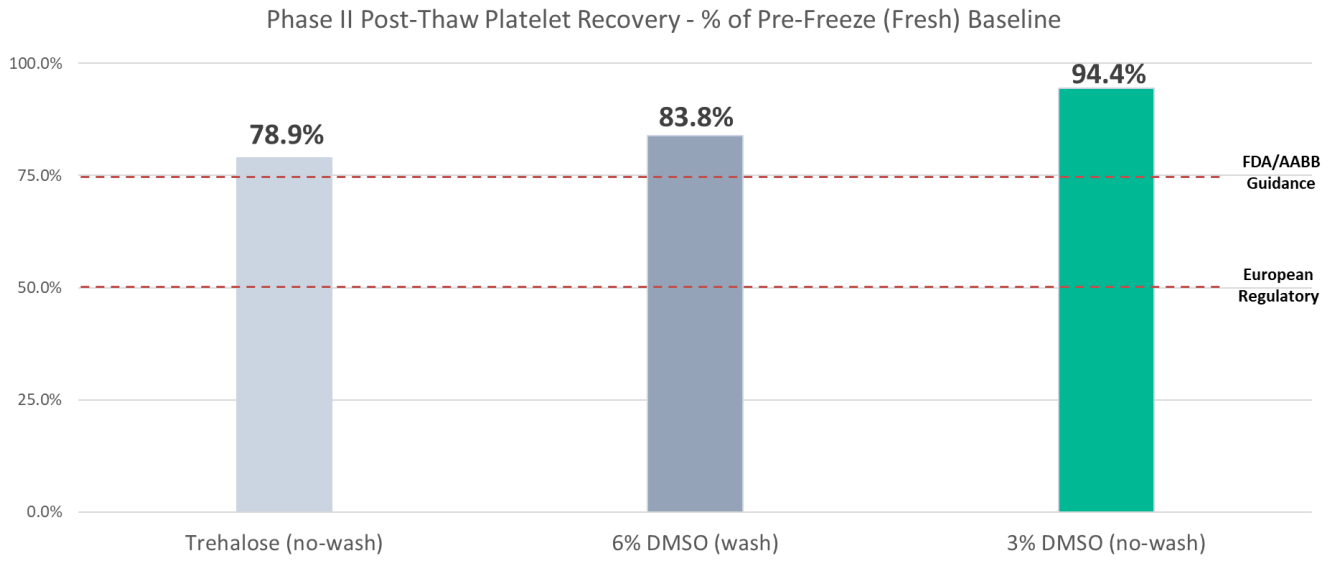

Figure 1. Mean post-thaw platelet recovery across the three Phase II cryopreservation protocols
European regulatory standard: European Directorate for the Quality of Medicines & HealthCare (EDQM), Guide to the preparation, use and quality assurance of blood components.
AABB standard: Fundamental Standards for Blood Collection and Transfusion, 2nd Edition, Association for the Advancement of Blood and Biotherapies.

Comparative Functionality

Phase II also tested how well the preserved platelets function after thawing — measured by clot strength and the retention of key platelet surface receptors that drive clotting. The 3% DMSO no-wash formulation outperformed the wash protocol on both measures. Notably, the 3% DMSO no-wash formulation retained nearly twice the level of key platelet receptors after thawing.

[1] The wash protocol requires centrifugation to concentrate platelets after DMSO addition, followed by reconstitution with freshly thawed plasma post-thaw.

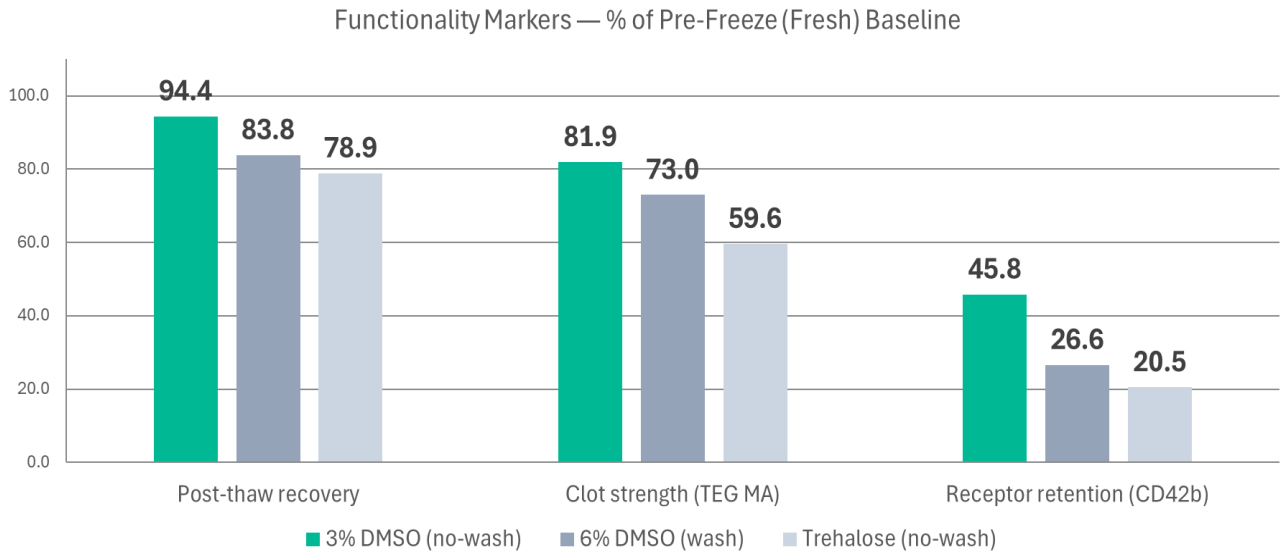

Figure 2. Comparative functionality markets (mean) across three key measures of cryopreserved platelet performance, normalised to fresh (pre-freeze) platelet baseline.

Why a No-Wash Solution Matters

A wash-based protocol requires the addition and removal of toxic levels of cryoprotectant via a centrifuge-based washing and reconstitution process. The procedure can only be performed in a specialised blood environment, with sterile, specialised equipment and trained personnel — making cryopreserved platelets impractical for use in time-critical and resource-constrained settings.

A scalable, decentralised, no-wash protocol that delivers a near fresh post-thaw quality may unlock the use of cryopreserved platelets across a range of settings where existing platelet supply is logistically constrained today — including stockpiling for event preparedness, greater access for rural and regional hospitals, streamlined supply chains and rapid use in battlefield and emergency response situations.

There is currently no FDA-approved no-wash cryopreserved platelet product commercially available in the United States[2]. Vitrafy's Phase II data positions the Company to address this market gap with a differentiated, category-first offering, supported by independent U.S. Army validation.

Upon completion of the study, the USAISR research lead Dr. Kristin Reddoch-Cardenas highlighted:

"*The ability to effectively utilize frozen platelets represents a vital advancement in addressing critical, growing needs across both civilian and military trauma response. We are proud of the scientific achievements resulting from this Phase II work and look forward to developing these findings into a peer-reviewed publication. Our ongoing collaborative research with Vitrafy offers a valuable scientific pathway toward implementing these essential capabilities.*"

[2] *Based on Vitrafy's review of publicly available U.S. FDA and AABB regulatory information as at the date of this announcement. To Vitrafy's knowledge, no FDA-licensed cryopreserved platelet product is commercially available in the United States. This position is monitored on an ongoing basis.*

Outlook

Upon finalisation of the results Managing Director and CEO, **Brent Owens**, commented:

"The final Phase II report from USAISR delivers independent validation that our decentralised, no-wash platelet preservation platform exceeds regulatory and quality guidelines on every meaningful measure.

Across 20 donors and at commercial volumes, we achieved 94% post-thaw recovery with superior clot strength and receptor retention — results that speak for themselves.

This milestone brings us firmly within reach of addressing one of transfusion medicine's most persistent logistical challenges, and we look forward to building on our partnership with USAISR as we progress toward FDA medical device registration in the first half of FY2027.

Vitrafy and USAISR intend to present the Phase II findings at international scientific conferences over the coming months, with the complete report to be published in conjunction with those presentations.

Investor Briefing

Vitrafy Managing Director and CEO, Mr. Brent Owens, will be hosting an investor webinar to discuss the Phase II in-vitro study at **9:30am (AEST)** on **Friday, 22 May 2026**. If you would like to attend the webinar, please use the below link to register:

https://us06web.zoom.us/webinar/register/WN_0TVnMRZjQ6676vxw6cbrBA

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This announcement is authorised by the Board of Vitrafy Life Sciences Limited.

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About Vitrafy

Vitrafy has developed a proprietary cryopreservation ecosystem including the Guardion cryopreservation freezing unit, and Lifechain™, a cloud-based software platform, to offer a complete cryopreservation solution. The Vitrafy ecosystem delivers a new standard of cryopreservation of biomaterial quality, empowering industries to retain the integrity of sensitive biological samples throughout the collection, storage and delivery process. Vitrafy's innovative approach combines cutting-edge technology and seamless software integration to optimise cryopreservation, ensuring reliability and efficiency in maintaining valuable biological assets.

Vitrafy is headquartered in Melbourne, Australia and is listed on the Australian Securities Exchange (ASX: VFY).

For more information visit *vitrafy.com*.