**ASX ANNOUNCEMENT**

8 April 2026

# U.S. Army Institute of Surgical Research Completes Phase II Platelet Study Using Vitrafy Cryopreservation Ecosystem



## Highlights

- The U.S. Army Institute of Surgical Research (USAISR) has completed Phase II testing of its platelet cryopreservation study using Vitrafy's cryopreservation ecosystem.
- Phase II expanded on the earlier USAISR study, increasing the sample size to test the reproducibility and robustness of cryopreservation outcomes across both the current legacy benchmark wash-based protocol and Vitrafy's no-wash approach.
- Results for the legacy benchmark wash-based protocol were in line with Phase I results supporting Vitrafy's continued progress toward commercialisation and medical device registration milestones.
- Indicative Phase II results from no wash protocols were comparable to, or exceeded, those observed using the current legacy benchmark – representing a potential step-change in cryopreservation standards for platelets.
- Final analysis and validation are underway, with the final report to be released later this quarter.

## Overview

Vitrafy Life Sciences Limited (ASX: VFY) ("**Vitrafy**" or "**the Company**") today announces the completion of Phase II testing in a platelet cryopreservation study conducted by the U.S. Army Institute of Surgical Research (USAISR).

The Phase II study builds on Phase I testing by increasing the number of platelet samples assessed, with the objective of confirming the consistency of earlier results and further characterising performance across multiple cryopreservation formulations.

The work forms part of the ongoing Cooperative Research and Development Agreement (CRADA) between Vitrafy and the U.S. Army, which is focussed on deploying a rapid response, platelet solution for use in trauma settings.

With donor collection and testing now complete, final analysis and report preparation is underway, with publication of results expected in Q4 FY2026.

**Scope of Phase II Study**

All samples were cryopreserved using Vitrafy's cryopreservation ecosystem with testing focussed on evaluation across two areas:

1. A wash-based protocol: the current legacy benchmark standard wash-based protocol; and
2. No-wash protocols: rapid deployment protocols enabling streamlined cryopreservation and transfusion.

Wash based sample testing under Phase II utilised the global benchmark in platelet cryopreservation of a 6% DMSO cryoprotectant formulation.

The rapid deployment, no-wash protocol testing evaluated a 3% DMSO formulation and a trehalose-based formulation.

Cumulatively, over 60 samples were tested across the wash and no-wash based product testing – Vitrafy's largest third-party testing program ever undertaken.

**Legacy Benchmark Cryopreservation Testing – Wash Protocol**

Consistent with Phase I testing conducted by USAISR and Australian Red Cross Lifeblood, Phase II included a wash-based protocol as a comparator to current platelet cryopreservation legacy benchmark.

Wash-based protocols require the addition and subsequent removal of toxic levels of cryoprotectant before and after cryopreservation, reducing workflow efficiency, negatively impacting post-thaw quality and rapid patient transfusion capability.

Indicative results from Phase II samples cryopreserved under the wash protocol were consistent with outcomes observed in Phase I USAISR study for a commercial unit of platelets.

The inclusion of the current legacy benchmark within the Phase II testing, established a point of comparison against both historical Vitrafy testing and broader market performance.

Replicating earlier results at larger scale validates the consistency of the Vitrafy cryopreservation ecosystem in a go-to-market setting and provides important support for ongoing medical device registration workstreams.

**Next Generation No-Wash Protocol**

In line with the CRADA objective of developing a rapid response platelet product, suitable for military and civilian use, simplified protocols removing the current benchmark wash workflow steps were assessed.

The removal of a manual washing process could unlock meaningful market utility by enabling deployment of cryopreserved platelets beyond specialised processing environments, including emergency, regional, and

resource-constrained settings. Ultimately, the goal is to improve availability of platelets in critical life-saving environments.

Indicative Phase II results from no-wash protocols were comparable to, or exceeded, those observed using the current market standard.

This protocol, combined with the effective capability to cryopreserve and store platelets, could provide a meaningful step-change in the operation and function of the platelets market via reducing handling time, operational complexity, and may, ultimately, deliver improved patient outcomes.

**Outlook**

Vitrafy and USAISR are preparing the Phase II study report. Publication is targeted for Q4 FY2026, with both parties intending to present the findings at international scientific conferences this year. Discussions regarding potential next steps on commercialisation and partnership expansion with the U.S. Army are ongoing.

Managing Director and CEO, **Brent Owens**, commented on the conclusion of the testing:
*"We are really pleased to finalise the testing with the U.S. Army which represents over 9 months of work on Phase II. The relationship with the U.S. Army goes from strength-to-strength whilst continuing to propel Vitrafy towards our upcoming commercial and medical device registration milestones."*

**-ENDS-**

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

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**About Vitrafy**

Vitrafy has developed a proprietary range of smart cryopreservation hardware and Lifechain™, a cloud-based software platform, to offer a complete cryopreservation solution. This integrated system ensures the preservation of biomaterial quality, empowering industries to retain the integrity of sensitive biological samples throughout the storage 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, has an ISO13485 accredited Manufacturing Facility and Laboratory in Ballarat, Victoria and is listed on the Australian Securities Exchange (ASX: VFY).

For more information visit vitrafy.com.