ASX ANNOUNCEMENT

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Highlights

- **Independent preclinical validation of AlgoraeOS v1 ("AOS1") completed at the Victorian Centre for Functional Genomics at the Peter MacCallum Cancer Centre, led by Professor Kaylene Simpson and Chief Scientific Officer, Dr James McKenna.**
- **21 drugs predicted by AOS1 were tested in combination with CBD across four cancer cell models, generating approximately 10,000 data points.**
- **The program covered 84 CBD–drug–cell combinations, including both AI-predicted "synergistic" and "non-synergistic" pairs.**
- **Across the dataset, based on predefined internal thresholds, AOS1 demonstrated predictive power by identifying a subset of synergistic combinations and excluding most combinations that were non-synergistic.**
- **The results provide the first independent validation that AlgoraeOS can prioritise drug combinations, supporting its use in future discovery and optimisation programs.**
- **Building on AOS1, AlgoraeOS v2 has been launched as a major upgrade to the platform, outperforming representative state-of-the-art models in published benchmarks and providing confidence-weighted predictions to guide future studies.**
- ***In silico* predictions generated by AlgoraeOS v2 are expected in December 2025, supporting data-driven selection of candidates for preclinical evaluation.**

AI-enabled pharmaceutical company **Algorae Pharmaceuticals Ltd (ASX: 1AI)** ('Algorae' or 'the Company') is pleased to report positive preclinical results from an independent validation of its AlgoraeOS v1 ('AOS1') drug-combination prediction platform.

The study was undertaken by the **Victorian Centre for Functional Genomics ('VCFG')** at the **Peter MacCallum Cancer Centre ('PMCC')**, under the supervision of Professor Kaylene Simpson and Dr James McKenna.

Summary of the validation program

AlgoraeOS v1 was used to select 21 drugs predicted to show synergy when combined with CBD. These combinations were then tested in the lab across four established cancer cell lines (T98G, BT20, PANC1 and 22Rv1).

- In total, the program performed 96 preclinical assessments of drug combination synergy, covering 84 CBD–drug–cell combinations where AOS1 had made a prediction (either "synergistic" or "non-synergistic").

- Using high-throughput microscopy to measure cell proliferation, the study produced approximately 10,000 data points, including replicates and controls.

- Each combination was analysed using four recognised models of drug interaction, Highest Single Agent ('HSA'), Bliss independence, Zero Interaction Potency ('ZIP') and Loewe additivity, to provide a comprehensive and conservative assessment of whether the drugs worked synergistically.

Key findings

The AOS1 validation program delivered the following key observations:

- **AlgoraeOS v1 predictions linked to real-world synergy**

  Across the dataset, and using predefined internal thresholds, AlgoraeOS v1 demonstrated predictive power by identifying a subset of CBD-drug combinations that were experimentally confirmed as synergistic and importantly, excluding most combinations that were non-synergistic in this setting. The pattern of predictions showed a positive correlation with three of the four recognised synergy models.

- **Three synergy models show consistent results**

  In this assessment, three of the four synergy models were closely aligned and well-correlated, supporting the consistency and robustness of synergy predictions.

  The fourth synergy model showed weaker correlation and some outlying values, in line with its suggested sensitivity to assumptions about dose–response relationships.

- **Potential drug combinations identified**

  The *in vitro* validation program identified several potential synergistic drug combination targets that met the predefined thresholds. These combinations can now be considered for further preclinical *in vitro* or *in vivo* assessment.

Collectively, these results provide clear preclinical support for the use of AlgoraeOS as a tool to prioritise drug combinations that are more likely to show true biological synergy, while also clarifying which analytical models are most informative for future work.

Chief Scientific Officer, **Dr James McKenna** commented:

"These validation experiments mark an important milestone in the real-world testing of the AOS1 in silico predictions. By testing both positive and negative predictions of synergy, we have gained important insights into the strengths of the baseline version of AlgoraeOS.

Completing this program in collaboration with the VCFG has allowed us to successfully benchmark the capabilities of AOS1 and build capacity to rapidly test future in silico predictions. The promising combinations identified from this initial study can now be considered for further assessment."

Implications and next steps

The Company views this validation as an important technical de-risking milestone for the AlgoraeOS platform. The data confirm that:

- AlgoraeOS v1 can differentiate between combinations that are likely to be synergistic and those that are not; and
- The preliminary platform's predictions align particularly well with three independent and widely-used synergy models.

In practical terms, this means AlgoraeOS v1 can focus laboratory work and R&D investment on combinations that are more likely to be productive. Promising combinations identified in the initial validation study can now be considered for further assessment.

These learnings are being incorporated into the ongoing development of AlgoraeOS, including:

- further optimisation of internal scoring and ranking functions;
- refinement of reference models and thresholds used to nominate combinations for testing; and
- design of future preclinical programs to efficiently identify the most promising combinations.

The validation also supports the Company's broader strategy to:

- use AlgoraeOS to identify and rank both novel and repurposed drug combinations, including AI-generated candidates; and
- apply the platform across oncology and other therapeutic areas, in partnership with leading research centres and commercial collaborators.

In parallel with the AOS1 validation, the Company has launched AlgoraeOS v2 ('AOS2'), a major upgrade to the platform developed with researchers at UNSW and CSIRO Data61.

AlgoraeOS v2 has been trained at scale on over 5.5 million unique inhibition records. It models the full dose–response surface across Bliss, Loewe, HSA and ZIP, and provides confidence-weighted outputs for each prediction. In published benchmarks, AOS2 outperformed representative state-of-the-art models, **including those from Google DeepMind**, delivering lower error and stronger correlations across all major synergy formalisms (refer to ASX announcement on 10 November 2025).

Together with the independent AOS1 validation at Peter MacCallum Cancer Centre, this positions AlgoraeOS as an increasingly robust, decision-grade engine for prioritising drug combination candidates for preclinical evaluation.

The Company expects to release the first *in silico* predictions generated by AlgoraeOS v2 in December 2025.

Authorised for release by the Board of Directors of Algorae Pharmaceuticals Ltd

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About Algorae Pharmaceuticals

Algorae Pharmaceuticals (ASX: 1AI) is an AI-enabled pharmaceutical company with a dual focus on drug-combination discovery and pharmaceutical commercialisation. The Company's proprietary AI platform, AlgoraeOS, applies machine learning and deep neural networks to identify synergistic drug combinations and guide dose selection for preclinical development. In parallel, Algorae operates a commercialisation business, AlgoraeRx, that sources, licenses and supplies generic and specialty medicines in Australia and New Zealand through partnered manufacturers and established distribution channels. Algorae collaborates with leading research institutions and industry partners to translate AI-predicted therapies and to expand patient access to high-quality medicines.

Algorae is listed and publicly traded on the Australian Securities Exchange (ASX: 1AI), providing investors an opportunity to participate in the Company's growth.

For more information visit www.algoraepharma.com or follow @algoraepharma on X or LinkedIn.

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