ASX ANNOUNCEMENT

ASX: 1AI | 10 November 2025

AlgoraeOS Version 2 Highlights

- **AlgoraeOS v2 launched**: major upgrade to Algorae's AI drug discovery platform.
- **Benchmark leadership**: outperformed representative state-of-the-art models, including Google DeepMind's TxGemma-27B-Predict and Tx-LLM (M) on NCI-ALMANAC (70/10/20 split).
- **Trained at scale**: over 5.5M unique inhibition records; full dose-response surfaces; Bliss/Loewe/HSA/ZIP + dose-specific inhibition.
- **Confidence-weighted predictions**: platform reports both the predicted outcome and its confidence, enabling risk-aware experimental design.
- **Pipeline**: deploying across preclinical pipeline to prioritise combinations/doses. AlgoraeOS v2 in-silico fixed-dose combination ('FDC') predictions expected Q4 2025.
- **Publication**: "*Uncertainty-Aware Deep Learning for Multi-Metric and Dose-Specific Prediction of Drug Synergy*". DOI Link.

Algorae Pharmaceuticals Ltd (ASX: 1AI) ('Algorae' or 'the Company') announces the launch of **AlgoraeOS Version 2**, a major upgrade to the Company's AI platform for drug-combination discovery, developed with researchers at the **UNSW Biomedical AI Laboratory** and the **UNSW AI Institute** in partnership with Algorae, and with support from **CSIRO Data61**. By addressing key limitations of earlier approaches, AlgoraeOS v2 sets a higher benchmark for identifying effective combinations in complex diseases.

In published benchmarks, AlgoraeOS v2 outperformed representative state-of-the-art models, including **Google DeepMind's TxGemma-27B-Predict** and **Tx-LLM (M)**, and demonstrated stronger calibration across biologically diverse, clinically relevant synergy regions (see metrics below). These results indicate a more reliable, decision-grade tool for prioritising combinations and designing preclinical studies.

A/Prof Fatemeh Vafaee, UNSW Sydney and UNSW AI Institute, commented:

"*AlgoraeOS represents a new generation of AI models that not only predict outcomes but also understand their own limits. By combining biological knowledge with uncertainty-aware deep learning, we can now model drug interactions with greater reliability and generalisability than ever before.*"

Dr Muhammad Javad Heydari, Postdoctoral Research Associate, UNSW Sydney commented:

"*AlgoraeOS is designed to analyse combination therapies the way a modern lab approaches them: integrating mechanisms, context and dose in an advanced AI model. It turns large-scale biological data into clear guidance on which drug pairs to advance, at what doses, and with quantified risk for each decision.*"

With the launch of AlgoraeOS v2, Algorae is reinforcing its leadership in AI-enabled therapeutic discovery, setting a new standard for drug-combination modelling. The cutting-edge platform is expected to significantly enhance the Company's preclinical development pipeline by providing predictive insights that guide drug candidate selection and design.

Executive Chairman, **Mr David Hainsworth** stated:

"Today's launch of AlgoraeOS v2 is a significant milestone for the Company and positions artificial intelligence as the cornerstone of our R&D programs. Across published benchmarks, v2 delivered clear performance gains over representative state-of-the-art models, a major achievement for Algorae and the UNSW AI team. We look forward to providing further updates to shareholders as we progress our dual-track strategy of AI-driven innovation and pharmaceutical commercialisation."

Underpinning this performance is a platform trained on a large, harmonised combination dataset and engineered to model the full dose–response surface across Bliss, Loewe, HSA and ZIP.

Data and Multi-Metric Analysis

Trained on over **5.5 million unique inhibition records** (~11M with augmentation) from harmonised high-throughput combination screens, AlgoraeOS v2 models the full dose–response surface for each drug pair and cell context. In a single unified model, it simultaneously predicts the four standard synergy measures, Bliss, Loewe, HSA and ZIP, replacing single-metric, dose-averaged summaries with dose-resolved assessment of drug-combination efficacy. This gives Algorae a more complete, decision-grade view to prioritise combinations, select doses and design preclinical studies.

Confidence-Weighted Predictions and Superior Performance

AlgoraeOS v2 provides **confidence-weighted outputs** for every prediction by quantifying two types of uncertainty, aleatoric (data-driven) and epistemic (model-driven). In practice, the platform reports both the predicted outcome and its confidence, enabling risk-aware experimental design.

Across published benchmarks, **AlgoraeOS v2 consistently outperformed representative state-of-the-art models and classical baselines**, delivering lower error and stronger correlations across all major synergy formalisms. For example, on NCI-ALMANAC, AlgoraeOS v2 achieved ZIP Mean Absolute Error (MAE) of 2.89 and Loewe MAE of 6.46 versus Google DeepMind's Tx-LLM (M) (3.78, 17.38) and TxGemma-27B-Predict (3.81, 17.34) (refer to *"Uncertainty-Aware Deep Learning for Multi-Metric and Dose-Specific Prediction of Drug Synergy"*. Available from: DOI: Link).

The model also generalises robustly beyond its training data, **accurately predicting synergy for previously unseen drug combinations**, by using rigorous zero-shot validation that supports real-world applicability. Collectively, these features make AlgoraeOS v2 a more reliable, decision-grade tool for prioritising high-potential pairs and designing preclinical studies.

Implications for Pipeline

The launch of AlgoraeOS v2 represents a major advance in the Company's ability to identify and prioritise promising combination therapies for cancer and other complex diseases, reinforcing Algorae's leadership in AI-enabled drug discovery. Its versatile architecture is

broadly applicable, enabling potential use beyond oncology in areas where combination regimens are critical, subject to indication-specific validation.

Algorae plans to integrate AlgoraeOS v2 across its therapeutic pipeline, informing hit prioritisation, dose selection and preclinical study design, to accelerate the advancement of high-value combinations. In-silico fixed-dose combination ('FDC') predictions generated by AlgoraeOS v2 are expected in Q4 2025, supporting data-driven selection of candidates for preclinical evaluation.

Together, these developments position AlgoraeOS v2 as a cornerstone of the Company's R&D strategy and a valuable asset for the broader biopharmaceutical industry.

A draft manuscript outlining the development of AlgoraeOS v2, its predictive performance and benchmarking against state-of-the-art models has been submitted for publication, entitled "*Uncertainty-Aware Deep Learning for Multi-Metric and Dose-Specific Prediction of Drug Synergy*". Available from: DOI: Link.

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 Stock 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.

Forward-looking Statements

This document may contain certain forward-looking statements, relating to Algorae's business, which can be identified by the use of forward-looking terminology such as "promising," "probable", "plans," "anticipated," "will," "project," "believe," "forecast," "expected," "estimated," "targeting," "aiming," "set to," "potential," "seeking to," "goal," "could provide," "intends," "is being developed," "could be," "on track," or similar expressions, or by express or implied discussions regarding potential filings or marketing approvals, or potential future sales of product candidates. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from any future results, performance or achievements expressed or implied by such statements. There can be no assurance that any existing or future regulatory filings will satisfy the FDA's and other health authorities' requirements regarding any one or more product candidates, nor can there be any

assurance that such product candidates will be approved by any health authorities for sale in any market or that they will reach any particular level of sales.

In particular, management's expectations regarding the approval and commercialisation of the product candidates could be affected by, among other things, unexpected clinical trial results, including additional analysis of existing clinical data, and new clinical data; unexpected regulatory actions or delays, or government regulation generally; our ability to obtain or maintain patent or other proprietary intellectual property protection; competition in general; government, industry, and general public pricing pressures; and additional factors that involve significant risks and uncertainties about our products, product candidates, financial results and business prospects. Should one or more of these risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary materially from those described herein as anticipated, believed, estimated, or expected. Algorae is providing this information and does not assume any obligation to update any forward-looking statements contained in this document as a result of new information, future events or developments or otherwise.

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