



AUSTRALIS
PHARMACEUTICALS

Corporate Presentation

June, 2026

- Australis Pharmaceuticals (Australis) was founded to develop naturally derived compounds into **cancer therapeutics**
- The original compounds were discovered in honey bee propolis on Kangaroo Island in South Australia and characterized as **microtubule-destabilizing agents (MTAs)**
- **AUS_001, oncology lead compound**, has demonstrated encouraging in-vitro and in-vivo data in efficacy and toxicity studies across multiple tumor lines
- **GLP Toxicology** studies are complete, with a **broad safety window**
- Given the broad anti-cancer activity against solid tumors demonstrated by AUS_001 and the ability to cross the **blood brain barrier**, the Phase 1 study will have a broad inclusion criteria for tumor types
- **Orphan Drug Designation** issued for AUS_001 for **malignant gliomas** in February, 2025 and **Rare Pediatric Disease Designation** issued for AUS_001 for **pediatric high grade gliomas** in March, 2025
- Pre-IND meeting completed with FDA: confirmed our pre-clinical approach
- Team in place has strong research and clinical development expertise

The 2025 global oncology market was \$251B and expected to reach around \$674B by 2034¹. The table below depicts the epidemiology for a few tumor types for which AUS_001 has demonstrated encouraging in-vivo data

	Pancreatic Cancer ²	Malignant Glioma³	Pediatric-type Glioma⁴
US Incidence	66,440	22,654	~8,800
Estimated Survival	12.8% (5 year survival)	~10% (5 year survival)	Most patients do not survive more than 1 – 2 years

No therapies currently in clinical trials identified as having viable potential to address these great unmet needs for patients

*: these represent just a few of the potential tumor types that AUS_001 can target

¹Precedence Research Pvt. Ltd ²National Cancer Institute SEER database; ³Mesfin, et al. 2024; Ostrom et al., 2022 ⁴ Gaijjar et al., 2022

Efficacy

- **Pre-clinical efficacy:** Demonstrated across a range of tumor types, including **glioma and other tumor types representing unmet needs for patients**
- **Crosses the blood brain barrier**

Safety

- **Safety margin:** ~20x more of AUS_001 needed to inhibit growth of healthy non-neoplastic counterpart cells
- **Peripheral neuropathy:** Reversible neurotoxic effect
- **Drug-Drug interactions:** Poor inhibitor of CYP enzymes, common pathway for drug metabolism

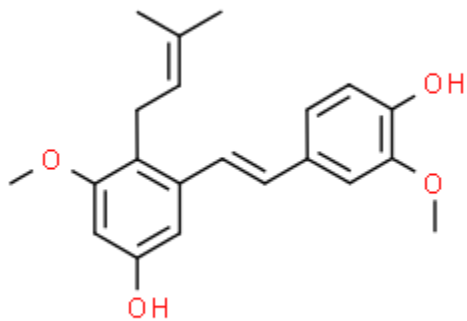
Patient Focus

- **Developed an oral formulation**
- **Potential balance of efficacy and safety,** based on pre-clinical therapeutic index

*AUS_001 extracted from the sedge plant
(source of Kangaroo Island propolis)*

AUS_001 Structure (E-stilbene)

MW=340.42 g/mol



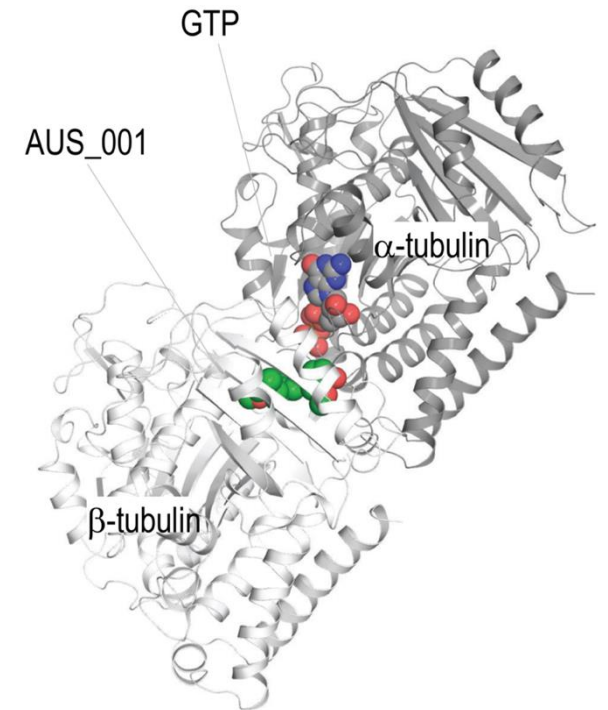
Common name:

(3-[(E)-2-(4-Hydroxy-3-methoxyphenyl)vinyl]-5-methoxy-4-(3-methyl-2-buten-1-yl)phenol

MECHANISM OF ACTION (MOA)*:

AUS_001 is characterized as a microtubule-destabilizing agent and has demonstrated cell cycle inhibition and induction of programmed cell death. Reversible mode of target engagement and increased uptake by cancer vs. normal cells

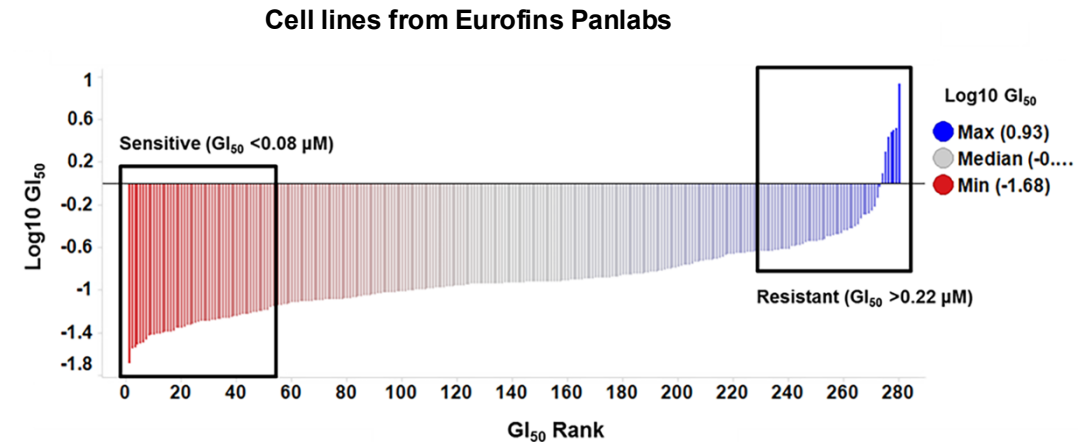
X-ray Crystal Structure of the tubulin-AUS_001 complex



*: MOA data presented at AACR 2024

In Vitro Data

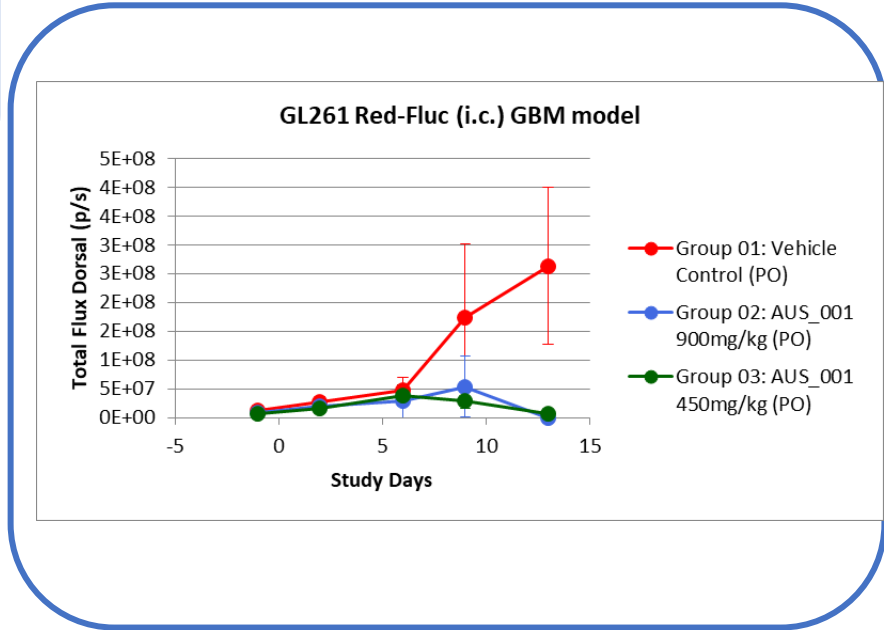
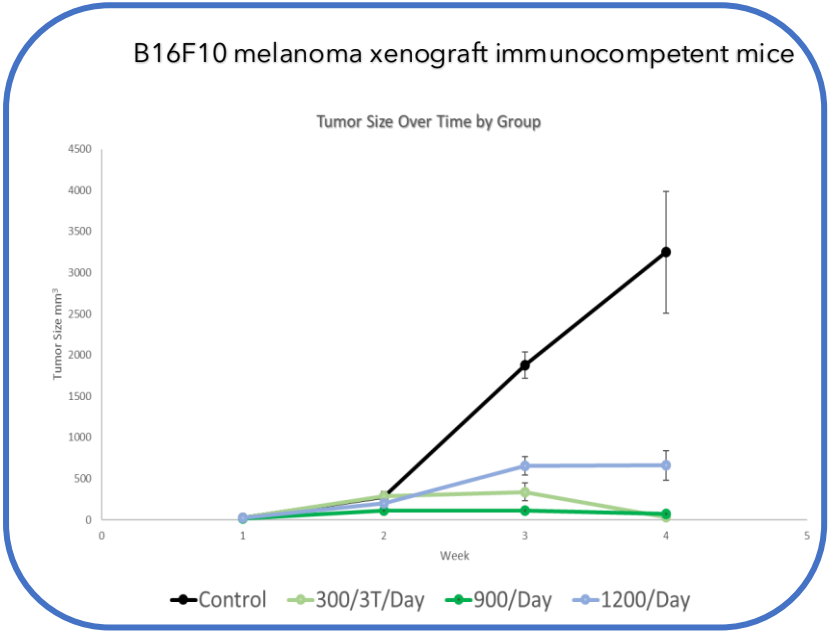
- High potency against **24 types of cancer***, including glioblastoma and other tumor types representing unmet needs for patients
- Encouraging safety margin: **~20x** more of AUS_001 needed to inhibit growth of healthy non-neoplastic counterpart cells
- Reduced concern for **peripheral neuropathy**: Drug treated midbrain and cortical neurons showed reversible neurotoxic effect for AUS_001 but Paclitaxel-treated neurons suffered sustained neurotoxicity even after discontinuation of treatment. This is a key finding especially for the pediatric population
- Less susceptibility to **Drug Resistance-related mechanisms**



The proliferation response of 280 cancer cell lines to AUS_001 treatments as assessed by high-content fluorescence imaging (Eurofins Panlabs): All cell lines with cell count GI₅₀ < 0.08 μM were classified as sensitive to AUS_001, while those with GI₅₀ > 0.22 μM were classified as resistant.

In Vivo Data

- Efficacy established in **7 different in vivo cancer models***
- Crossing of **blood-brain barrier****
- Pharmacokinetics/Pharmacodynamics: **Accumulation** in tumors, organs and brain tissues
- **Lack of myelosuppression** or other overt toxicities in immunocompetent mouse study (21 days, P.O.)
- **Non-emetic** response in ferrets



*: Figures to the right depict a few in vivo models; Additional data available upon request

** : Assessed using the 3D Human Blood Brain Barrier Model

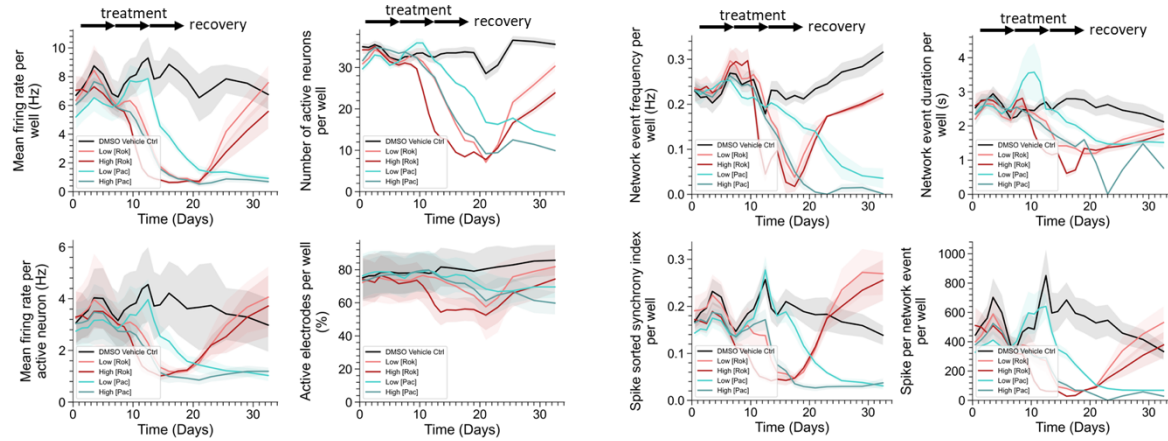
Safety AUS_001 Demonstrated an Encouraging Safety Profile in Predictive Toxicology Screen

Study	Results
AMES Test	No mutagenic potential up to 100 µM doses of AUS_001
Cardiotoxicity	Low hERG-blocking liability with a half-maximal inhibitory concentration of 65 µM
Hepatotoxicity	Poor inhibitor of CYP enzymes , except for CYP1A
Vascular Toxicity	AUS_001 affects activated Human Umbilical Vein Endothelial Cells (HUVECs) at lower doses relative to those required for cytotoxicity induction of quiescent endothelial cells
P-glycoprotein (P-gp) model	P-gp overexpressing cellular models do not confer resistance to AUS_001
βIII-tubulin model	AUS_001 significantly retains its ability to sensitize βIII-tubulin overexpressing cells
Neurotoxicity	Drug treated midbrain and cortical neurons showed reversible neurotoxic effect for AUS_001 , while Paclitaxel-treated neurons suffered sustained neurotoxicity after discontinuation of treatment

AUS_001 exerts reduced concern for neurotoxicity

Midbrain Neurons Exposed to Paclitaxel and AUS_001

Experiment started at Day 192 of Neuronal Maturation in plate NE245
7-8 wells per condition



Drug concentrations increased roughly every 5 days

Low AUS_001: 0.1uM → 2uM → 8uM Low Pac: 0.1uM → 2uM → 8uM
High AUS_001: 1uM → 4uM → 16uM High Pac: 1uM → 4uM → 16uM

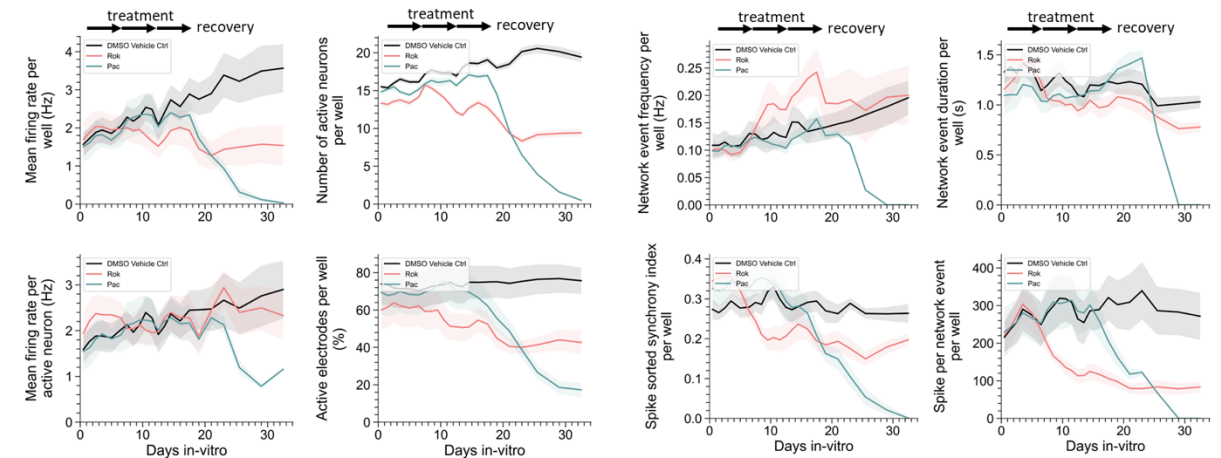


- ✓ Drug treated midbrain and cortical neurons showed reversible neurotoxic effect for AUS_001 but paclitaxel-treated neurons suffered sustained neurotoxicity even after discontinuation of treatment

Methods: The cells were maintained in 16 electrode per-well 48-well MEA plates and were fed by half-media change three times per week. Culture media and method for midbrain and cortical neurons is as defined previously in Milky et al 2022. Paclitaxel and AUS_001 treatment media was prepared fresh for every feed using individual frozen drug aliquots to avoid repeated freeze-thaw cycles. The DMSO vehicle control media was matched to the highest concentration of DMSO in the drug media (the High Paclitaxel condition). When drug treatment was initiated, the midbrain neurons had been maintained in culture for 192 days and the cortical for 137 days. Drug treatments increased in concentration roughly every 5-6 days depending on the feeding schedule. A full media change was performed to wash out the drugs to begin the recovery period. Recordings were taken daily during drug exposure, and at least twice a week during recovery, by a Maestro pro MEA system (Axion Biosystems). The MEA maintained a 37°C and 5% CO2 environment for the recordings. MEA Recordings were single-cell spike sorted using Plexon Offline Sorter version 4.5 (Plexon Inc) to isolate individual neurons from the electrodes and analyzed with Neural Metric Tool (Axion Biosystems).

Cortical Neurons Exposed to Paclitaxel and AUS_001

Experiment started at Day 137 of Neuronal Maturation in plate NE258
5-6 Wells per Condition

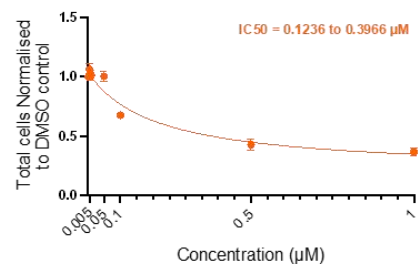
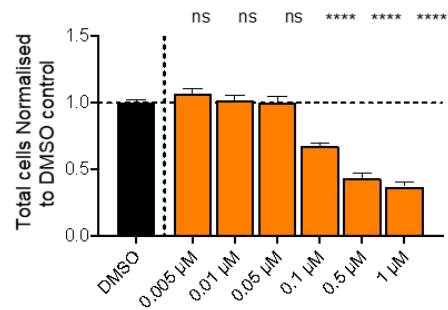


Drug concentrations increased roughly every 5 days

AUS_001: 0.1uM → 1uM → 2uM Pac: 1uM → 2uM → 4uM

Human Neural Midbrain Progenitors Tolerate Higher Concentrations of AUS_001 Relative to Other Microtubule Targeting Agents

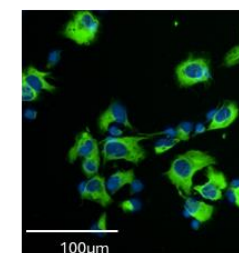
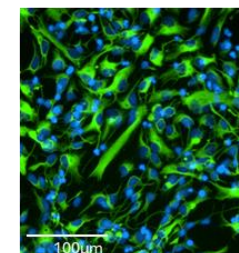
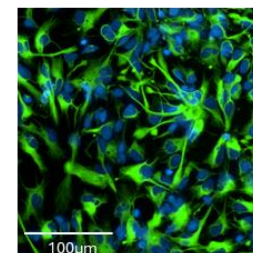
Aus001



DMSO control

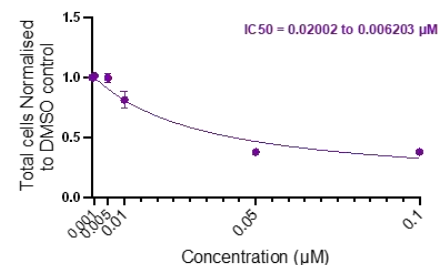
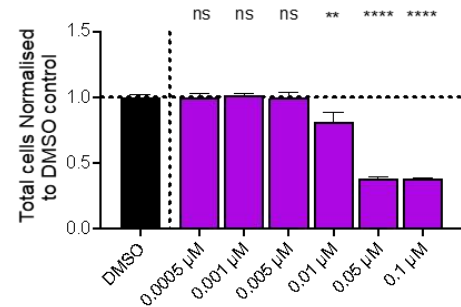
0.1 μM

1 μM



Nestin/DAPI

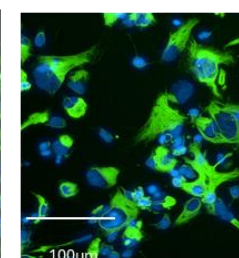
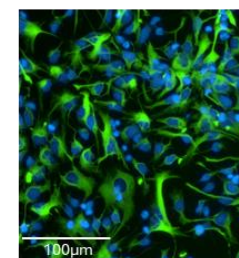
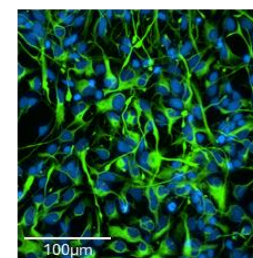
Avanbulin



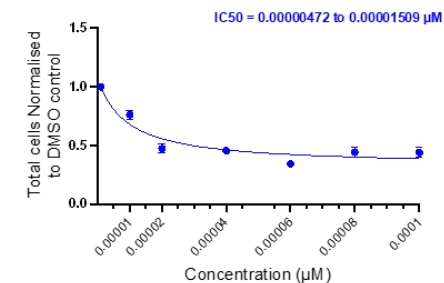
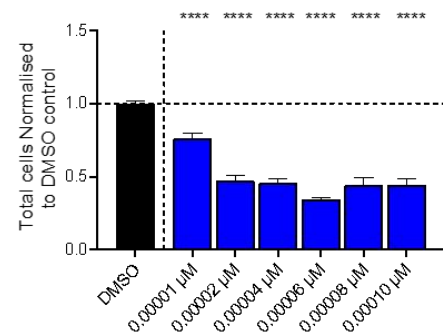
DMSO control

0.01 μM

0.1 μM



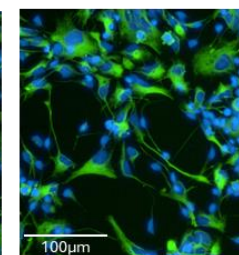
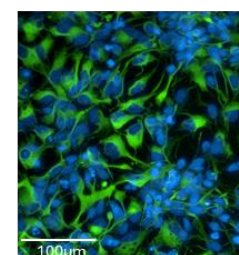
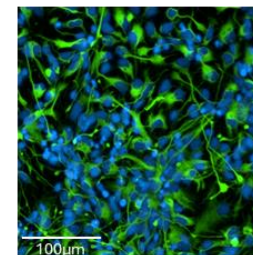
Vincristine



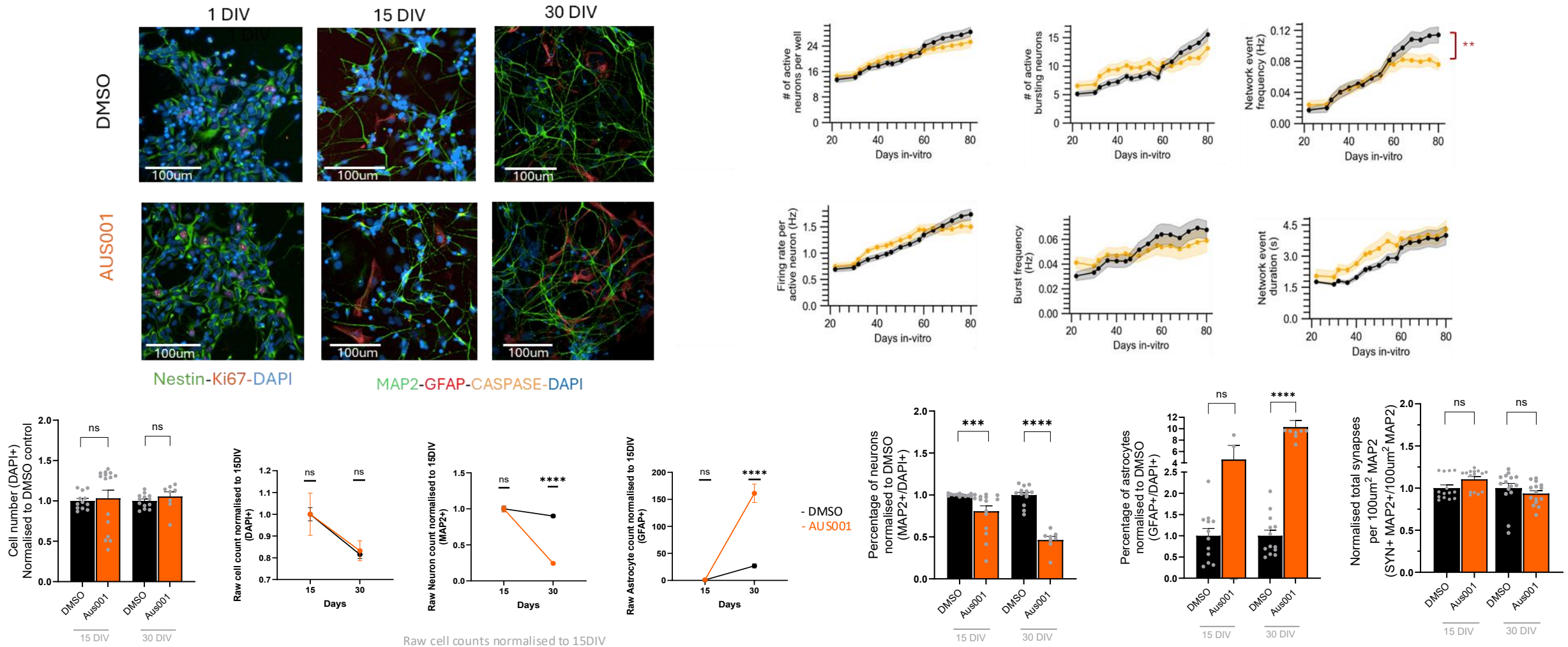
DMSO control

0.00001 μM

0.00002 μM



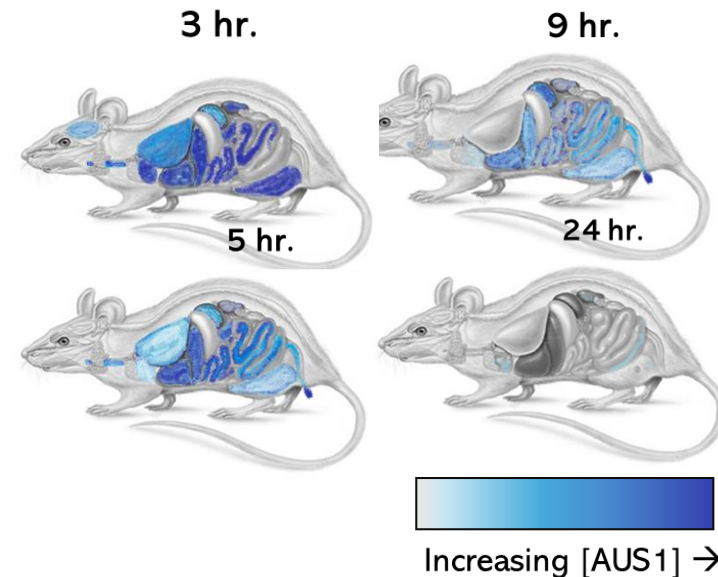
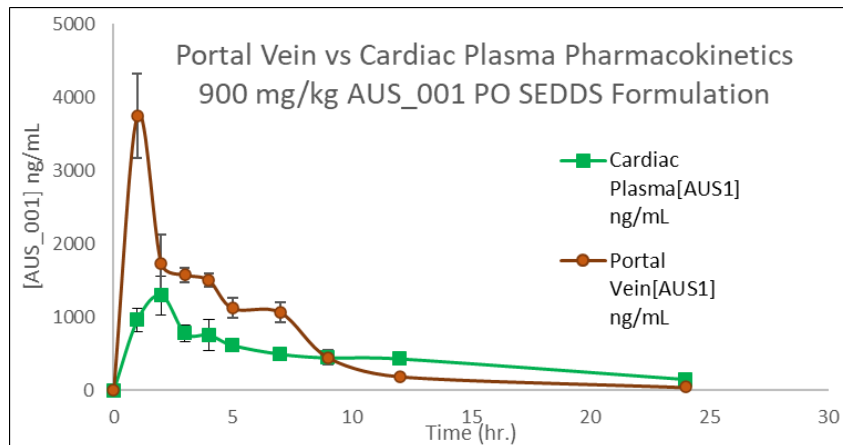
Recovery of AUS_001-treated Midbrain Neural Progenitor Cells Points to Maintenance of Functional Integrity - Potential Clinical Relevance for Patients with Pediatric Gliomas



Characterized the PK/PD Profile for the Oral Administration of SEDDS-formulated AUS_001

PK/PD Data for the AUS_001 Self-Emulsifying Drug Delivery System (SEDDS) Formulation Development and Efficacy

- Solubility up to 400 mg/mL
- T_{max}: 3 hrs
- T_{1/2} elimination: **8.29 hr**
- 72% escapes first pass-metabolism
- Bioavailability: 15-20%
- Excipients inhibit UGT enzymes



AUS_001 Demonstrated an Encouraging Safety Profile in *In Vivo* Studies

- Upon single oral administration, there were **no deaths, and no overt toxicity** observed for the SEDDS formulated AUS_001 **at the 2,000 mg/kg dosage** in Balb/c mice
- Of note, the **vehicle does not exhibit any toxicity** on its own at **>10,000 mg/kg** (highest dose tested)
- A **repeat dose range-finding (DRF) study in mice** was conducted with a 14 daily repeat dosing of the SEDDS formulated AUS_001 at 100, 500, or 1,500 mg/kg. Generally, **oral doses up to 1,000 mg/kg were well-tolerated in mice**, with no myelotoxicity toxicity and no toxicity detected in all tissues analyzed except the cecum. Soft stools were noted 1-5 hours post dose.
- The **non-GLP DRF 7-day toxicology study in rats and the 28-day GLP toxicology study** indicates that **oral doses up to 1,000 mg/kg/day were well tolerated**. At the highest dose tested (1,000mg/kg), gas in caecum and intestine, as well as soft stools were noted. **28-day GLP toxicology study in the dog** demonstrated that up to **600 mg/kg** was tolerated

Synthesis and Manufacturing

- **4 step** scalable GMP manufacturing synthesis of drug substance established.
- Demonstrated manufacture of **5 kg GMP material** in **4 months** with **>99%** purity
- Drug product is a "**clinic ready**" **oral formulation** utilizing approved excipients from the inactive ingredients database.
- **Liquid-in-a-bottle dosage form** to help specifically tailor dosing levels during human studies as well as facilitate additional **pediatric** cohort clinical investigations.
- Oral formulation long-term can improve patient experience and increase patient compliance.

AACR 2024

AACR 2024

ASCO 2024

SITC 2024

ASCO GI 2025

The novel microtubule-destabilizing compound AUS_001 maintains unique binding to the colchicine site of tubulin and elicits reversible cellular effects relative to other anti-tubulin agents

Abstract No: 7141 Herman Lelie¹, Yao-Chieh Chou², Alastair J. King², Zlata Bojarska³, Andrea E. Prota⁴, Michel O. Steinmetz⁴, Marina Koutsoumpa¹

A novel microtubule disruptor exerts broad anticancer efficacy with a tolerable safety profile

Abstract No: 4701 Herman Lelie¹, Inger Brandsma², Giel Hendriks², Lee R. Cavedine³, Brogan A. Epkins³, Steven M. Garner³, Andrew J. Cook³, Muthukrishnan Renganatha⁴

Our previous work showed that the proliferative responses, as assessed by microtubule destabilization activity

1. AUS_001 is a novel microtubule-destabilizing agent

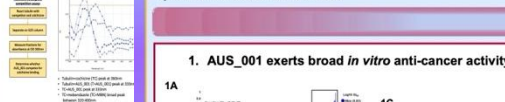


Figure 1. (A) Direct absorbance reaction curves passed over 600 evaluated in Real Tubulin [3H] C presented as percent inhibition of a non-linear, least squares regression calculated using the equation of coefficient (n), defining the slope

3. AUS_001 is a novel microtubule-destabilizing agent

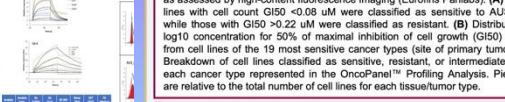


Figure 3. (A) Surface Plasmon Resonance (SPR) analysis of AUS_001 binding to tubulin. (B) Dissociation curve showing the stability of the AUS_001-tubulin complex.

2. Orally administered AUS_001 is well-tolerated in vivo

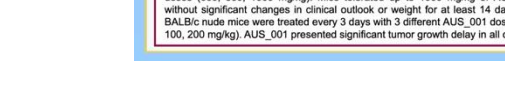


Figure 2. (A) BALB/c mice were treated once daily with 3 different AUS_001 doses (600, 800, 1000 mg/kg). Mice tolerated up to 1000 mg/kg of AUS_001 without significant changes in clinical outcome or weight for at least 14 days. (B) AUS_001 presented significant tumor growth delay in all

The microtubule-destabilizing agent AUS_001 is an attractive candidate for glioblastoma therapy

Abstract No: 3114 Marina Koutsoumpa¹, Aaron L. Carlson², Teresa M. DesRochers², Peter Y.W. Chan³, April L. Risinger³, Robert Adams⁴, Cedric Bardy⁴, Daniel Thomas⁵, Herman Lelie¹

The microtubule-destabilizing agent AUS_001 acts as an immunogenic cell death inhibitor

Abstract No: 976 Marina Koutsoumpa¹, Herman Lelie¹

Microtubules are a well-established target for cancer therapy and the ability to also retain efficacy in a subset of 15 established glioma cell lines with decreased toxicity

1. AUS_001 crosses the Blood Brain Barrier

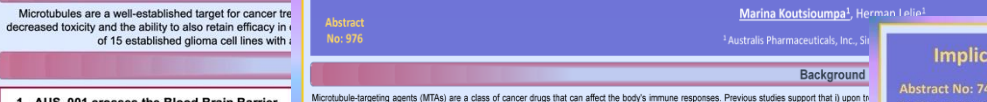


Figure 1. (A) Brain Microvascular Endothelial Cells (BMECs) (purple) are cultured on the luminal side of the transwell and Pericytes and Astrocytes (orange and green) are cultured on the abuminal side of the transwell to form a barrier that mimics an in vivo model. (B) Evaluation of the trans endothelial electrical resistance (TEER) indicates that the BMECs co-culture possesses reasonable barrier properties (TEER >15040 Ohm*cm²) on Day 5 upon system activation. BMECs treated with 1uM AUS_001 for 6h exhibited strikingly decreased TEER across 2 independent biological replicates. Drug passage through the membrane was confirmed using LC-MS and the apparent permeability coefficient (Papp) was calculated based on the permeation rate and compound concentration.

1. AUS_001 induces the release of high mobility group box 1 protein and extracellular adenosine triphosphate in a manner from dying cancer cells

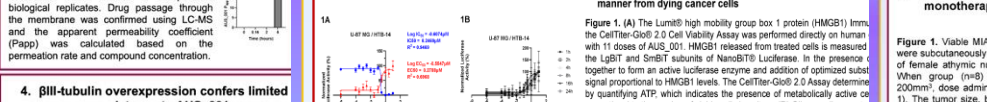


Figure 1. (A) The Lumio[®] high mobility group box 1 protein (HMGB1) Immunoassay (Pnoma) or targeted enzyme-linked immunosorbent assays for (B) Interleukin-1β and (C) C-X-C Motif Chemokine Ligand 10 (IP-10) upon 48 hrs treatment.

4. βIII-tubulin overexpression confers limited resistance to AUS_001

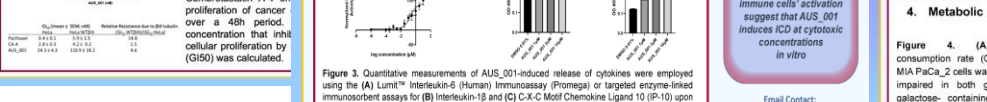


Figure 4. HeLa pan cells compared to isogenic line of expressing the βIII-tubulin (HeLa WT) The sulfhodamine assay was used to determine concentration-dependent effects of AUS_001. Comrestatatin A-4 on proliferation of cancer over a 48h period. concentration that inhibit cellular proliferation by (GI50) was calculated.

Conclusions
The detection of cell surface- and extracellular- appearing DAMPs, as well as surrogate markers of immune cells' activation suggest that AUS_001 induces ICD at cytotoxic concentrations in vitro

Implication of the novel microtubule targeting agent, AUS_001, in pancreatic cancer cellular signaling

Abstract No: 748 Marina Koutsoumpa¹, Herman Lelie¹, Kun-Yuan Lin², Pony Yu-Ling Lee²

Pancreatic cancer (PanCa) is considered a major therapeutic challenge due to its poor prognosis, high mortality rate and resistance to most therapies, underlining the need for new treatment approaches. Our previous investigations revealed that the prenylated hydroxy-stilbene, AUS_001, inhibits β-tubulin polymerization via its unique binding to the colchicine site of tubulin. A cell-based profiling platform (OncoPanel™ Profiling Analysis, by Eurofins Panlabs) identified sensitivity to AUS_001 in 12 out of 13 PanCa lines included with a median concentration causing 50% growth inhibition of 0.227uM.

Background

The goal of the current study was to elucidate the signaling activity and cellular responses following treatment with AUS_001 and explore the prospect of the latter in PanCa treatment.

Aim

The goal of the current study was to elucidate the signaling activity and cellular responses following treatment with AUS_001 and explore the prospect of the latter in PanCa treatment.

Results

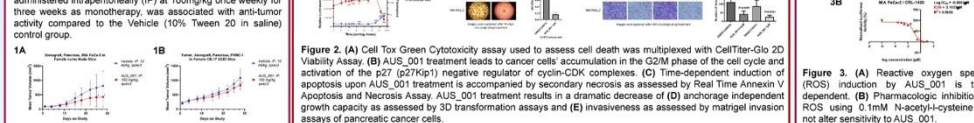


Figure 1. (A) Cell Viability Assay. (B) AUS_001 treatment leads to cancer cells' accumulation in the G2M phase of the cell cycle and activation of the p27 (p27Kip1) negative regulator of cyclin-CDK complexes. (C) Time-dependent induction of apoptosis upon AUS_001 treatment is accompanied by secondary necrosis as assessed by Real Time Annexin V Apoptosis and Necrosis Assay. AUS_001 treatment results in a dramatic decrease of (D) anchorage independent growth capacity as assessed by 3D Transformation assays and (E) invasiveness as assessed by marginal invasion assays of pancreatic cancer cells.

4. Metabolic profiling of AUS_001-treated PanCa cells unveiled significant impairment of mitochondrial respiration

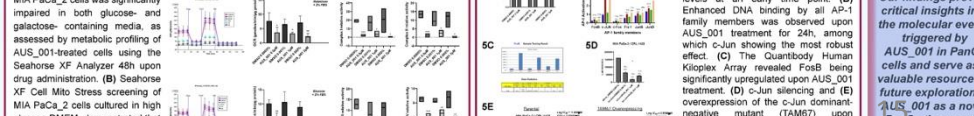


Figure 4. (A) Oxygen consumption rate (OCR) of live MIA PaCa_2 cells was significantly impaired in both glucose- and galactose-containing media, as assessed by metabolic profiling of AUS_001-treated cells using the Seahorse XF Analyzer 48h upon drug administration. (B) Seahorse XF Cell Mito Stress screening of MIA PaCa_2 cells cultured in high glucose DMEM, demonstrated that AUS_001 treatment blocks the function of all mitochondrial complexes (I-IV).

5. c-Jun transcriptional activation acts as a partial mediator of AUS_001-induced cytotoxicity

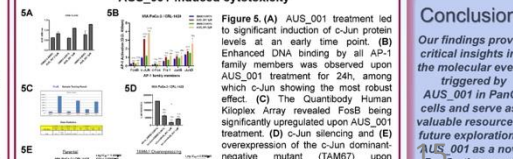


Figure 5. (A) AUS_001 treatment led to significant induction of c-Jun protein levels at an early time point. (B) Enhanced DNA binding by all AP-1 family members was observed upon AUS_001 treatment for 24h, among which c-Jun showing the most robust effect. (C) The Quantibody Human Kioplex Array revealed FosB being significantly upregulated upon AUS_001 treatment. (D) c-Jun silencing and (E) overexpression of the c-Jun dominant-negative mutant (TAM67) upon AUS_001 treatment of PanCa cells for 72h, point to c-Jun transcriptional activation as a mediator of AUS_001 cytotoxicity.

Conclusions
Our findings provide critical insights into the molecular events triggered by AUS_001 in PanCa cells and serve as a valuable resource for future exploration of AUS_001 as a novel PanCa therapeutic agent

Global Patents/Exclusivity	Expiry
2012: Use and synthesis of AUS_001 and one pipeline asset	2032
2020: Covers 4 pipeline assets, new synthesis route and 5000+ potential new chemical entities	2040
Orphan Drug and Rare Pediatric Designations	~ 7 year extension following approval

Australis Key Achievements To Date

2020 - 2024

1Q25

2Q25

3Q25

4Q25

2026 YTD

- In vitro and in vivo data demonstrating efficacy and safety
- Mechanism of action characterized
- Pharmacokinetic, absorption, distribution, metabolism, and excretion data generated
- First abstracts and posters presented at medical meetings, including work with academic partners
- Toxicology testing – 14 day dose response

- Orphan Drug Designation received
- Rare Pediatric Disease Designation received

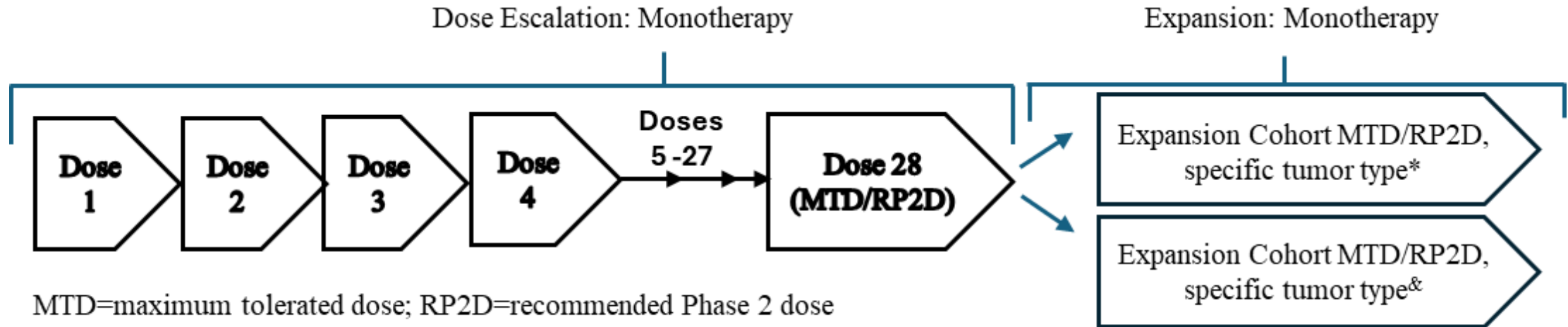
- Scalable GMP manufacturing
- GLP Toxicology initiated in rodent
- Continued to advance in vivo data in glioma and pediatric high grade glioma: partnerships with Mayo Clinic, Children's Hospital, and Newcastle (Australia)

- Continued GLP Toxicology in rodent
- FDA Pre-IND meeting

- Finish GLP Toxicology in rodent and initiate GLP Toxicology in dogs

- Completed GLP Toxicology studies
- Preparation for Australia first in human study dose escalation study – anticipated to start ~3Q26

A Multi-Institutional Study of AUS_001, as Monotherapy in Patients With Solid Tumors



*Adults with metastatic and/or locally advanced solid tumors

&Pediatrics aged 5-17 years with pediatric-type diffuse high-grade glioma

- The Dose Escalation Phase will be a 3+3 design and is expected to enroll patients at approximately 2-4 sites in Australia
- The Expansion Phase would also be planned to include US sites
- Proposed clinical paths for glioma will focus on pediatric high grade glioma and adult glioma with an initial focus on relapsed patients, including Temozolomide resistant, then moving to first line

Successfully raised ~\$30M over the last 10+ years

No debt on the balance sheet

Enough cash on hand to proceed through Phase 1

Currently seeking to enhance our capital with ~\$15 Million raise in 2026 for clinical trials beyond Phase 1

Australis Pharmaceuticals Executive Team

Team Member	Role	Expertise	Past Experiences
Michele Korfin, RPh, MBA	CEO	~30 years as a Biotech leader focused on clinical development, regulatory, and commercialization	Merck, Celgene, Kite, TYME, Gamida Cell
Caroline Carr, CPA	CFO	Finance leader in Biotechs and Pharma companies with expertise in investor relations	Mycovia, Dara, Pfizer, Deloitte
Marina Koutsioumpa, PhD	VP, Cancer Biology	PhD-trained cancer biologist specializing in molecular pharmacology and preclinical development (<i>in vitro</i> and <i>in vivo</i> models)	UCLA Center for Systems Biomedicine
Herman Lelie, PhD	VP, Research and Development	PhD with expertise in analytical chemistry and pre-clinical development	MIT, UCLA, Bruin Biometrics, Constitution Labs
Todd Robinson	Founder	Entrepreneur with business and financial expertise. Owner of the land where AUS_001 was discovered	Building and leading organizations across many industries

- AUS_001 has demonstrated **encouraging pre-clinical efficacy with a large safety margin**
- Completed IND enabling studies this year and will plan to be **ready for first in human studies in ~3Q 2026**
- **Experienced scientific team** who have partnered very effectively with academic institutions
- Leadership team with **expertise** in advancing oncology therapies through FDA approval and launch