PharmAust LIMITED

PharmAust Limited is a clinical-stage company developing therapeutics for the treatment of different types of cancers, viral and neurological diseases, as well as providing highly specialised medicinal and synthetic chemistry services on a contract basis to clients

ASX: PAA

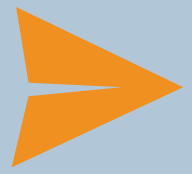
ACN 094 006 023

ONLINE ATTENDEES – TEXT QUESTION PROCESS

When the question function is available, the messaging tab will appear at the top of the screen

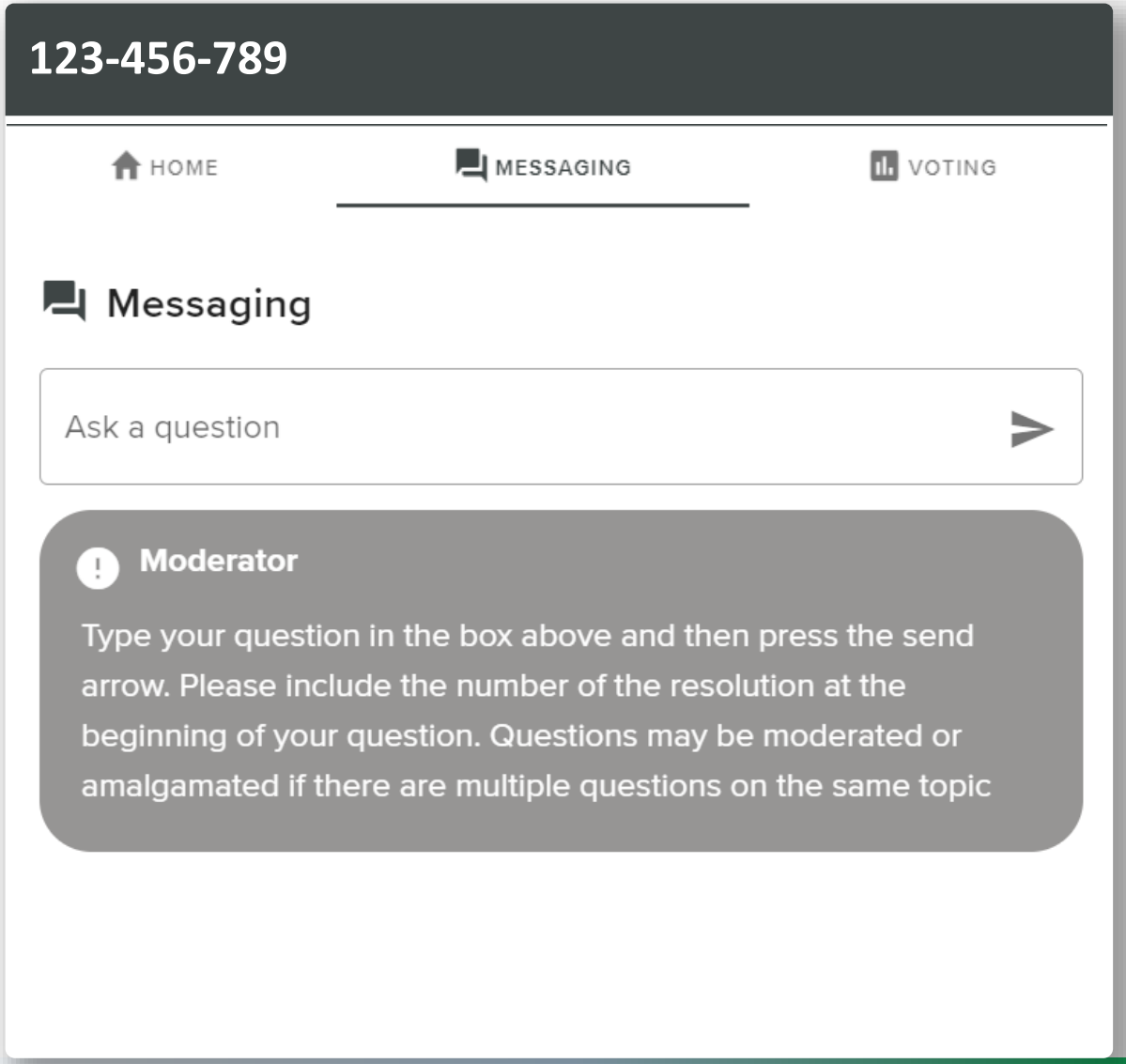


To submit a question, type your question in the “Ask a question” box and press the send arrow



Your question will be sent immediately for review

Received

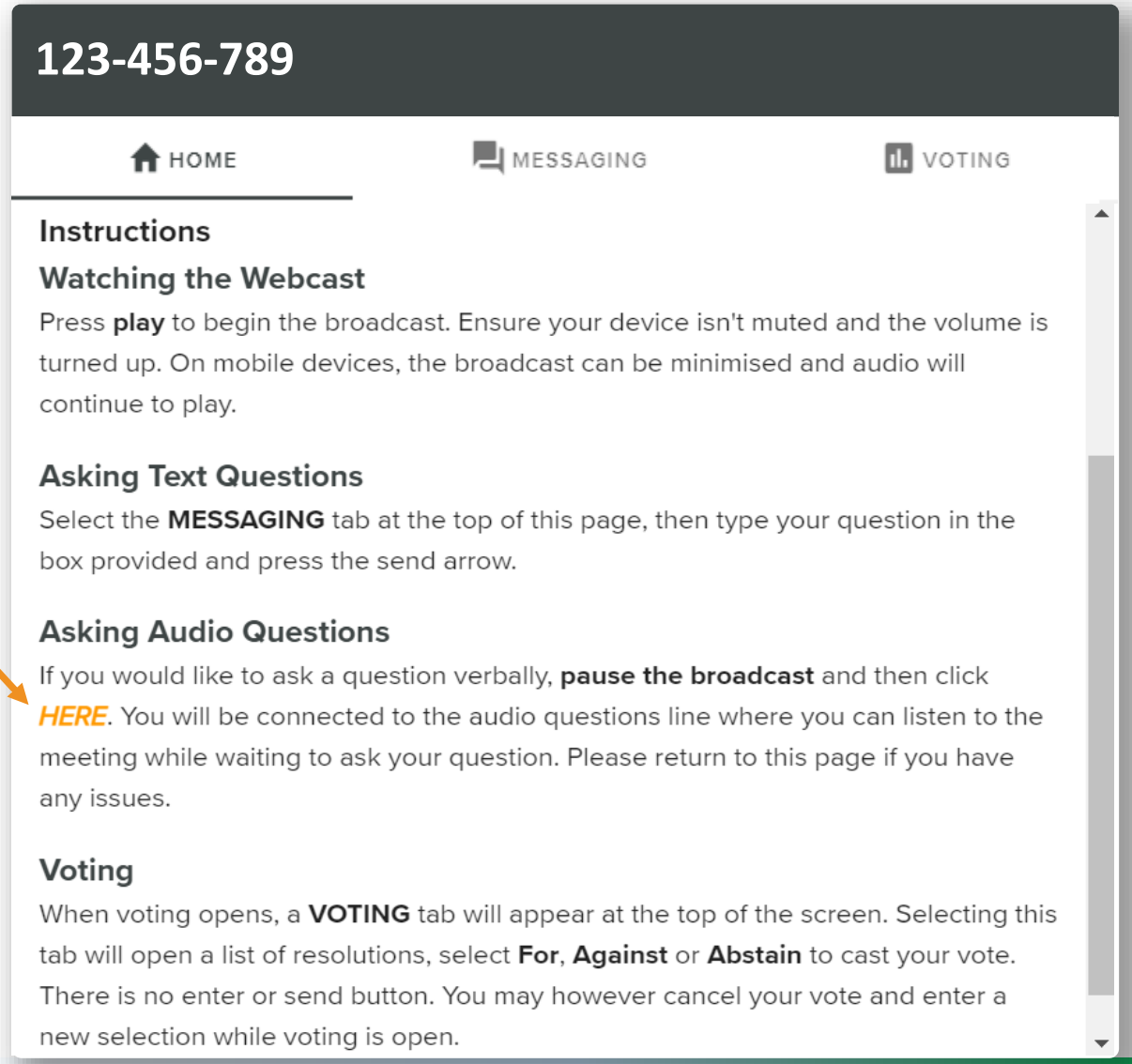


ONLINE ATTENDEES – AUDIO QUESTION PROCESS

When the audio questions line is available, a link will appear on the home tab titled **Asking Audio Questions**

If you would like to ask an audio question, **pause the meeting broadcast** and click on the link

You will be prompted to enter your name and the topic of your question before being placed in the audio questions queue



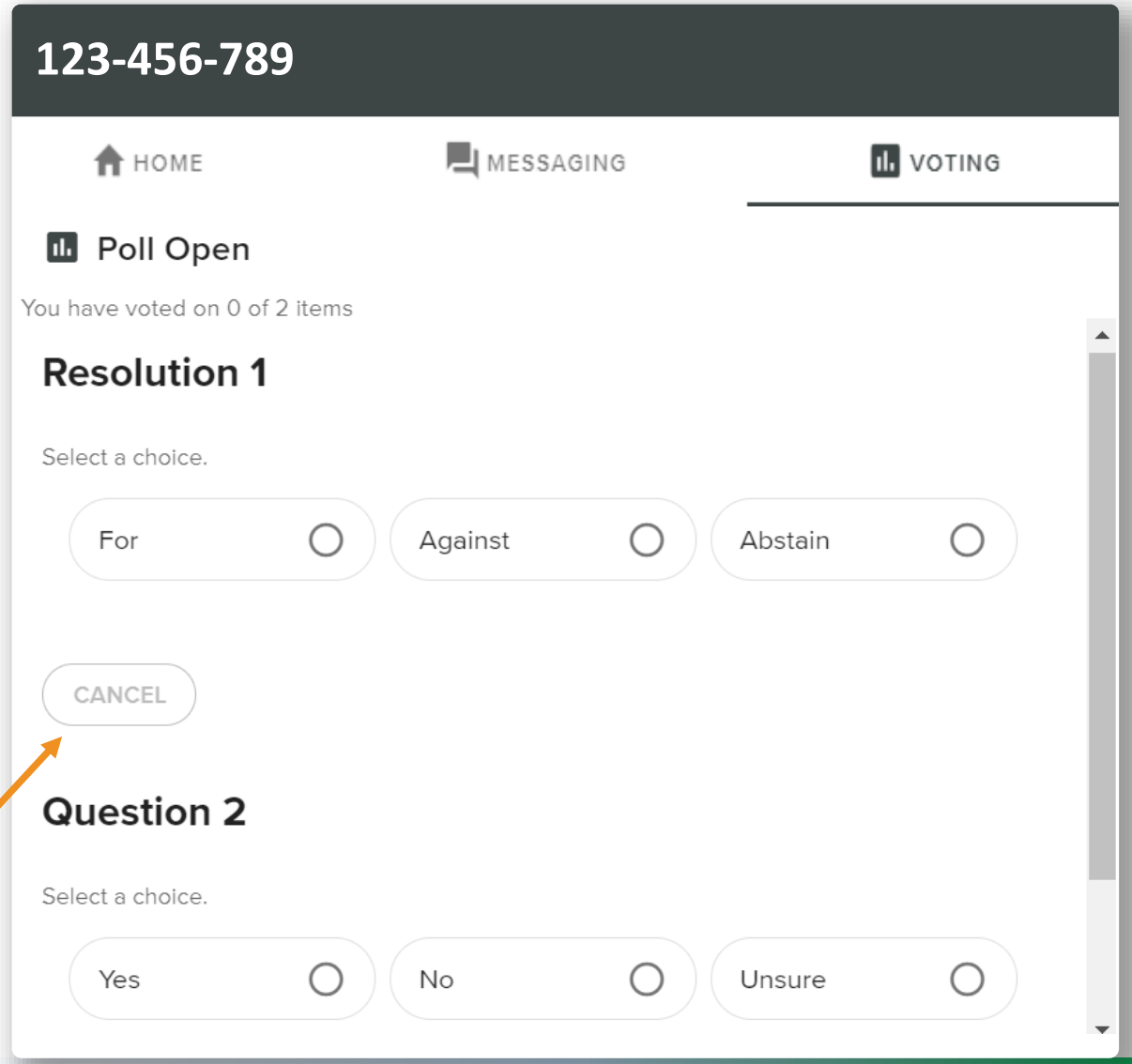
ONLINE ATTENDEES – VOTING

When open, the vote will be accessible by selecting the voting tab at the top of the screen

To vote simply select the direction in which you would like to cast your vote. The selected option will change colour

For | Against | Abstain

There is no submit or send button, your selection is automatically recorded. You can change your mind or cancel your vote any time before the poll is closed



Board and Management



Dr Roger Aston – Executive Chairman



Robert Bishop– Executive Director



Sam Wright – Finance Director



Dr Richard Mollard – Chief Scientific Officer



Neville Bassett AM – Non-Executive Director



Colin La Galia – Epichem CEO

Proxy votes received

Resolution	Vote type	Voted	%	% of all securities
1, ADOPT REMUNERATION REPORT	For	42,525,123	76.01	13.42
	Against	8,477,927	15.16	2.68
	Open-Usable	4,937,253	8.83	1.56
	Board	*4,921,253*	*8.80*	*1.55*
	Non-Board	*16,000*	*0.03*	*0.01*
	Open-Cond	0	0.00	0.00
	Open Unusable	0	N/A	0.00
	Abstain	160,008	N/A	0.05
	Excluded	33,357,675	N/A	10.53
2, RE-ELECT DIR S WRIGHT	For	70,586,356	81.86	22.27
	Against	4,664,789	5.41	1.47
	Open-Usable	10,977,253	12.73	3.46
	Board	*10,961,253*	*12.71*	*3.46*
	Non-Board	*16,000*	*0.02*	*0.01*
	Open-Cond	0	0.00	0.00
	Open Unusable	0	N/A	0.00
	Abstain	3,229,588	N/A	1.02
	Excluded	0	N/A	0.00
3, RE-ELECT DIR N BASSETT	For	70,437,948	84.21	22.23
	Against	2,227,789	2.66	0.70
	Open-Usable	10,980,661	13.13	3.46
	Board	*10,964,661*	*13.11*	*3.46*
	Non-Board	*16,000*	*0.02*	*0.01*
	Open-Cond	0	0.00	0.00
	Open Unusable	0	N/A	0.00
	Abstain	5,811,588	N/A	1.83
	Excluded	0	N/A	0.00
4, APRV ADD 10% CAPACITY	For	64,210,408	71.96	20.26
	Against	14,032,075	15.73	4.43
	Open-Usable	10,977,253	12.31	3.46
	Board	*10,961,253*	*12.29*	*3.46*
	Non-Board	*16,000*	*0.02*	*0.01*
	Open-Cond	0	0.00	0.00
	Open Unusable	0	N/A	0.00
	Abstain	238,250	N/A	0.08
	Excluded	0	N/A	0.00
5, APRV ISS SECURITIES EIS	For	41,143,268	74.53	12.98
	Against	9,156,574	16.59	2.89
	Open-Usable	4,901,676	8.88	1.55
	Board	*4,885,676*	*8.85*	*1.54*
	Non-Board	*16,000*	*0.03*	*0.01*
	Open-Cond	0	0.00	0.00
	Open Unusable	0	N/A	0.00
	Abstain	12,809,390	N/A	4.04
	Excluded	21,447,078	N/A	6.77



MONEPANTEL

"REPURPOSING MONEPANTEL"

- REGISTERED IN 38 COUNTRIES AS A VETERINARY ANTIPARASITIC
- PHASE 3 IN CANINE CANCER START APR 2022 FOR REGISTRATION
- RE-FORMULATED MONEPANTEL AS TABLET FOR CANINE AND HUMAN CANCER
- DISCUSSIONS RECENTLY INITIATED WITH MAJOR PHARMACEUTICAL COMPANY
- EXCELLENT SPRINGBOARD FOR TREATMENT OF OTHER HUMAN DISEASES
- THREE HUMAN TRIALS TO BE INITIATED 2022 (Q2-Q4)
- MND TRIAL FUNDED ($880,000) BY FIGHTMND

MONEPANTEL

VALUE PROPOSITION

SAFETY
- Good safety profile no chemotherapy-like side effects
- No weight loss
- No inappetence
- Good Quality of Life
- Home administration by owner
- No ethical issues on use of chemotherapy
- Patient can go home immediately
- No risk of chemo toxicity to owner's family

ECONOMICS
- Considerably more cost effective than chemotherapy

COMMERCIAL
- Open dialogue with Vet Major
- Patents granted

EFFICACY
- Extends survival x 4 cf untreated
  (at least stable disease induced)
- Extends survival x 2 cf steroid standard of care
  (at least stable disease induced)

MANUFACTURE
- GMP drug and GMP tablet manufacture in place
- Scored tablet for small dogs
- Different tablet configurations for different diseases

REGISTRATION
- Relatively short pathway to registration
- Contact process with FDA initiated

PHARMAUST: CANINE CANCER PROGRAMME

UPDATE: OPTIMAL DOSE

- Fine tuning of Dose Optimization in Phase 2 Leading to Phase 3
- 100% of canines treated showing at least stable disease
- Quadrupling mean-survival time over untreated
- Doubling mean-survival time over prednisolone alone
- Dogs remain active and in good spirits (QOL)
- Discussions beginning for FDA registration and GCP implementation
- Discussions with major Pharma for Sale or License of MPL for Veterinary





MONEPANTEL – COMPARATIVE SAFETY

PRODUCT PLACEMENT

Chemotherapy (CHOP) Works Well But:

1. Poor quality of Life
2. Diarrhea
3. Vomiting
4. Bladder irritation
5. Weight loss/ inappetence
6. Immunosuppression
7. Due to above, questionable ethics of using chemotherapy
8. Price tag: typical for B-Cell Lymphoma $5,000 -$10,000
9. Target 15-20% of Canines with cancer
10. Survival 6-12 months

Prednisolone:

Short Term Side Effects

Increased thirst and appetite
Frequent urination
Panting
Lethargy
Development or worsening of infections (especially bacterial skin infections)
Vomiting or nausea
Cost: $40/month
Survival: 1-2 months

Monepantel (Median survival 4 months)

1. Excellent quality of life
2. Commercial positioning targeting 60-80% of canines
3. Doubles life expectancy over prednisolone alone
4. No risk of contamination from chemotherapy of patient
5. None of the ethical issues associated with chemo

MONEPANTEL

PRODUCT PLACEMENT

CHEMOTHERAPY
WHICH IS IN EFFECT PALLIATIVE CARE
15% - 20%



PALLIATIVE CARE
WITHOUT CHEMOTHERAPY

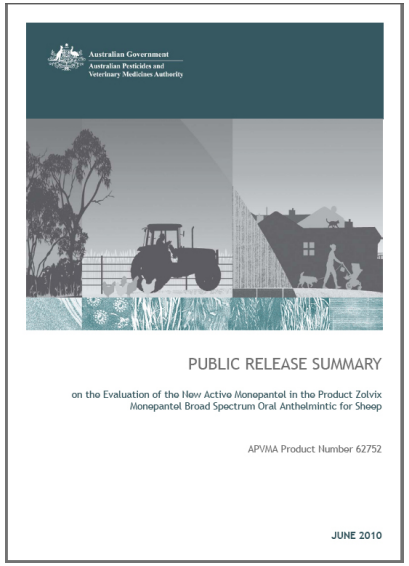
- 4-6 MONTHS
- NO PAIN
- GOOD QOL
- NO TOX ISSUES
- HOME MEDICATED

EUTHANASIA
60%-80% DOGS WITH CANCER

MONEPANTEL

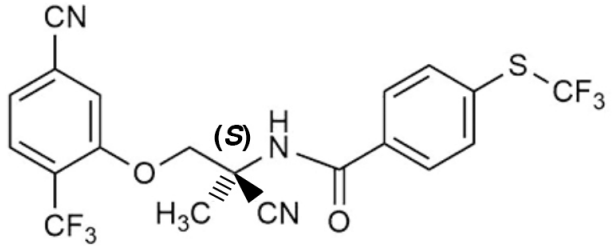


PARALYSIS OF PARASITES
TARGETING ACETYLCHOLINE RECEPTORS

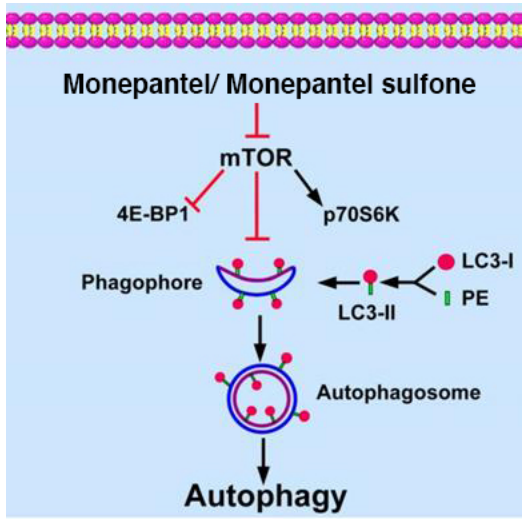


https://apvma.gov.au/sites/default/files/publication/14141-prs-monepantel.pdf

HOW IT WORKS



MONEPANTEL





mTOR ANTAGONIST –> CURRENT SALES OF mTOR DRUGS: $2.5Bln

mTOR plays a pivotal role governing cell growth and proliferation

Therapeutic Targets:

- Cancer (Vet and Human)
- Motor Neurone Disease
- COVID-19

MONEPANTEL

TABLET STABILITY AND IMPURITY ANALYSIS

MPL ACTIVE INGREDIENT
SOURCED FROM SYNGENE INDIA
(2 X 10 KG SCALE

Syngene
Putting Science to Work

TABLET SOURCING CAPABILITIES:
CATALENT = PHASE 1 &2
SYNGENE = PHASE 3

Catalent®



- At least 24 month shelf life
- Impurity profile 15 x within limits

MONEPANTEL

PHARMAUST: HUMAN TRIAL PROGRAM



HUMAN CANCERS

- CLINICAL INTEREST TO FOCUS ON:GI, GLIOBLASTOMA, ESOPHAGEAL AND PANCREATIC

→ Principal Investigators in UK and Italy
Identified for phase I/II trial

MOTOR NEURONE DISEASE

- HUMAN TRIAL IN MELBOURNE AND SYDNEY 2022
- FUNDED BY FIGHT MND CHARITY ($880,000)

→ FightMND Charity has awarded PharmAust $880,000
To evaluate MPL for Motor Neurone Disease
Dr Susan Mathers, Calvary Health Care Bethlehem
And Prof. Dominic Rowe Macquarie University

COVID-19

- PREPARATIONS FOR EUROPEAN TRIAL UNDERWAY

→ WEHI
360Bio
LEIDEN UNIVERSITY

→ INHIBITION OF SARS-CoV-2

MONEPANTEL STRATEGY

MOVING FORWARD

Strategy

- With indicative commercially valuable phase 2 outcomes in canine cancer -> Complete phase 3 trial and License or sell Vet Cancer application

- With good data in dogs showing significant periods of stable disease and progression-free survival we will start targeting human cancer

- Clinical outcomes with canines often facilitates rapid translation to humans

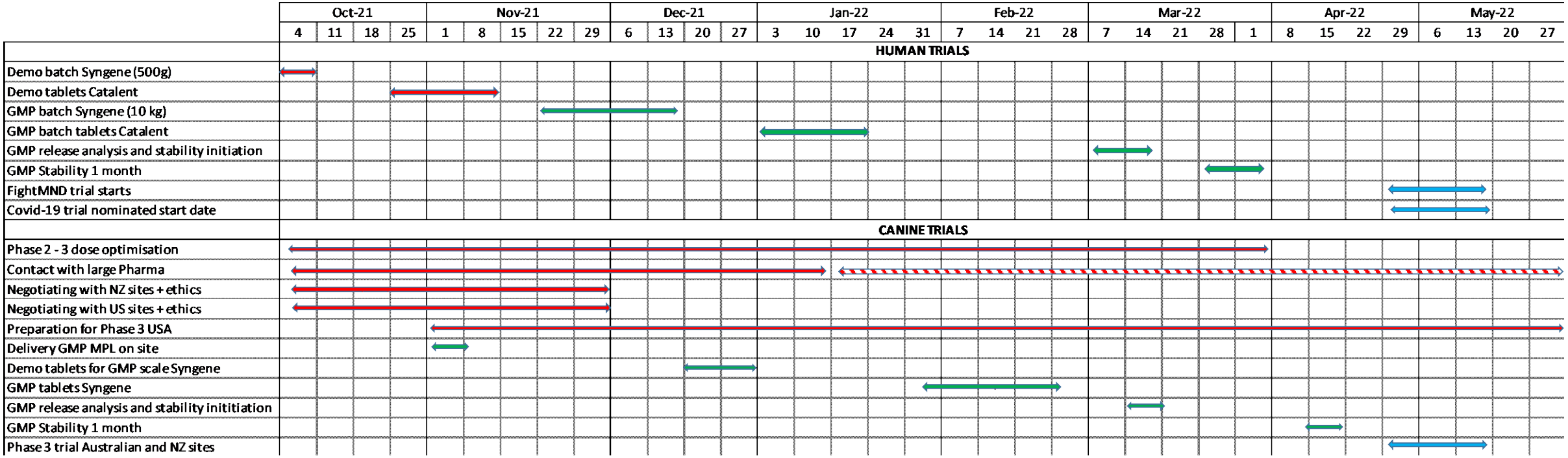
- Expand into other mTOR indications (COVID-19 and MND)

Factors supporting strategy:

- Canine B-Cell Lymphoma very aggressive
- MPL is a very safe drug with a high quality of life
- MPL will be tested in a Phase 3 trial in combination with prednisolone

CLINICAL TIMELINES

MOVING FORWARD: CRITICAL TIMELINES



Epichem

Epichem Pty Ltd

Australia's premier provider of synthetic and organic chemistry services

Who are we

- Wholly owned subsidiary of PharmAust Limited
- Australian-based Contract Research Organisation
- Based in Perth
- Top Australian SME employer of PhD graduates
- 18 years success helping clients worldwide
- National and State export award winner

Experts in

- Synthetic, organic & medicinal chemistry
- Pharmaceutical Reference Standards
- Custom Synthesis
- Analytical chemistry
- Material science
- IP generation & protection





epichem

Our Formula. Your Success.

ECAAS ISO 9001 CERTIFIED QUALITY MANAGEMENT

NATA ACCREDITED FOR TECHNICAL COMPETENCE

EPICHEM PTY LTD: Medicinal & Synthetic Chemistry Expertise

Worldwide customer base in Pharmaceutical, Biotech, Start Ups, Mining, Agriculture and Animal Health sectors
State of the art, Purpose-Built facilities

Medicinal Chemistry & Drug Discovery

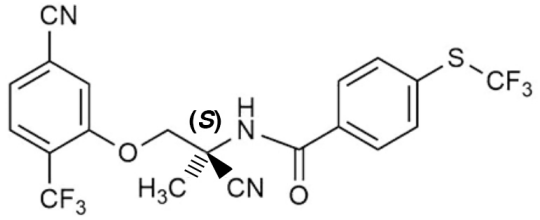
- Hit-to-Lead projects
- Lead optimisation towards candidate selection
- Synthesis of analogue libraries and scale up
- IP Generation
- Drug conjugates, fluorescent tags & metabolites
- Cost effective, flexible FTE contract options
- Pharmaceutical Reference Standards
- Custom Synthesis
- Analytical Chemistry & Problem Solving Capability

Supporting PharmAust Drug Development Pipeline

- Lead drug development & validation
- Drug candidate pipeline manufacture & analysis
- Drug reformulation, GMP synthesis & stability support
- Drug inventory dispensing to clinical trial centres

Proven Track Record of Success

- SFC chromatography, computational chemistry, X-ray, ADMET, HPLC, LC-MS, GC-MS, NMR, Karl Fischer, melting point apparatuses
- ISO 9001 Certified; NATA 17025 & 17034 Accredited
- 2021, 2019, 2017 WA Exporter of the Year Award for International Health
- GHP Biotechnology 2020 Awards Most Innovative Chemistry Service Provider - Australia
- GHP Biotechnology 2020 Awards Best in Organic Chemistry Solutions
- Partnership Success: DNDi, PYC Therapeutics, Forever&More



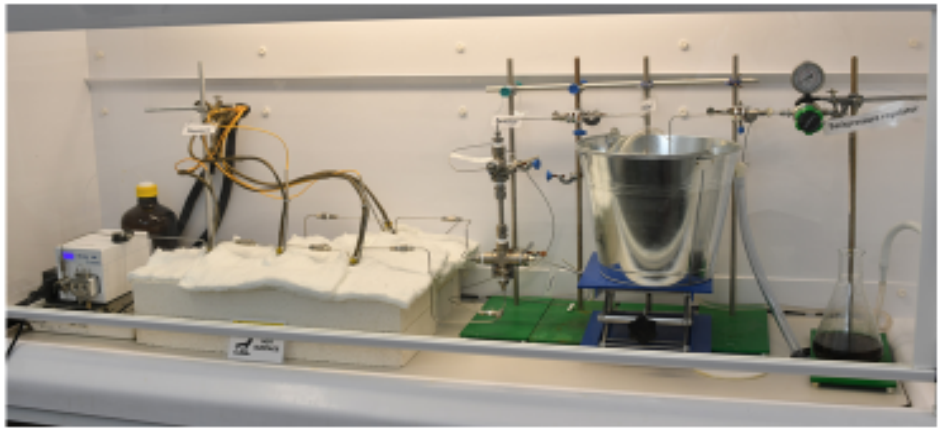
OHD Waste Conversion & Re-purposing Technology

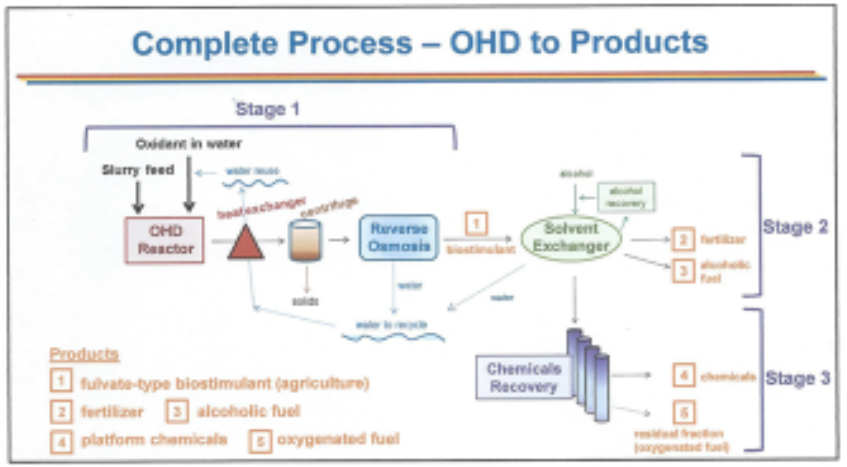
Biomass waste to fuel technology – "OHD"

Oxidative Hydrothermal Dissolution

Integrated non-catalytic process
For the production of high value chemicals and fuel

From macromolecular organic solids including biomass such as municipal waste, straw, plastic, tyres, oil shale and coal





- Novel, continuous, hydrothermal process to convert macromolecular organic solids into low molecular weight organic chemicals only

- Elevated temperature [± 270 °C]
- High pressure [± 200 bar (2900 psi)]
- Liquid water
- Molecular oxygen
- Minimal gaseous products [<1 %]

1

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Policy Alignment & Government Incentives

2020 federal budget

- $250m injection over 4 years into waste & recycling initiatives

2019 national waste policy

- 10% reduction in waste generation per capita by 2030
- 80% average resource recovery rate from all waste streams
- Phase out problematic, unnecessary plastics by 2025

West Australia's waste avoidance & resource recovery strategy for 2030

- Avoid, recover, protect
- 10% reduction in waste generation per capita by 2025
- 70% recovery of material by 2025

Australia's biofuel production 30-year growth target

- Currently lagging biofuel production relative to global average, working to achieve 30-year target
- Launched new bioenergy road map for greener future

Australian Government incentives for renewable energy

- Carbon credits, grants, financial assistance (ARENA[1]) (CEFC[2])

Corporate social responsibility goals

- Australia's big 4 banks have joined RE100 & announced commitment to 100% clean energy by 2025

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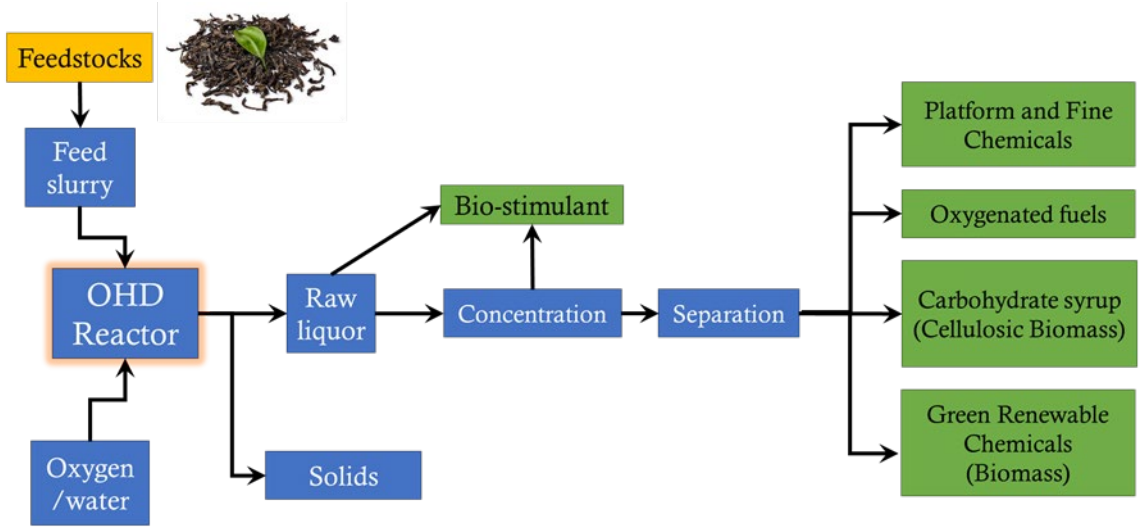
OHD Benefits

OHD has many unique benefits including;

- Is technically straightforward and operates at industrially feasible conditions and rates
- Uses only water and oxygen. Requires no exotic solvents or catalysts
- Readily achieves high to complete conversion of the starting solid with high recovery (typically 70-90+% C) of the products as solubilized low molecular weight materials
- Is environmentally friendly
- Produces little CO_2
- Minor gaseous product is mainly CO
- No Nitric Oxide (NOx) or Sulfur Oxide (SOx) or other problematic emissions

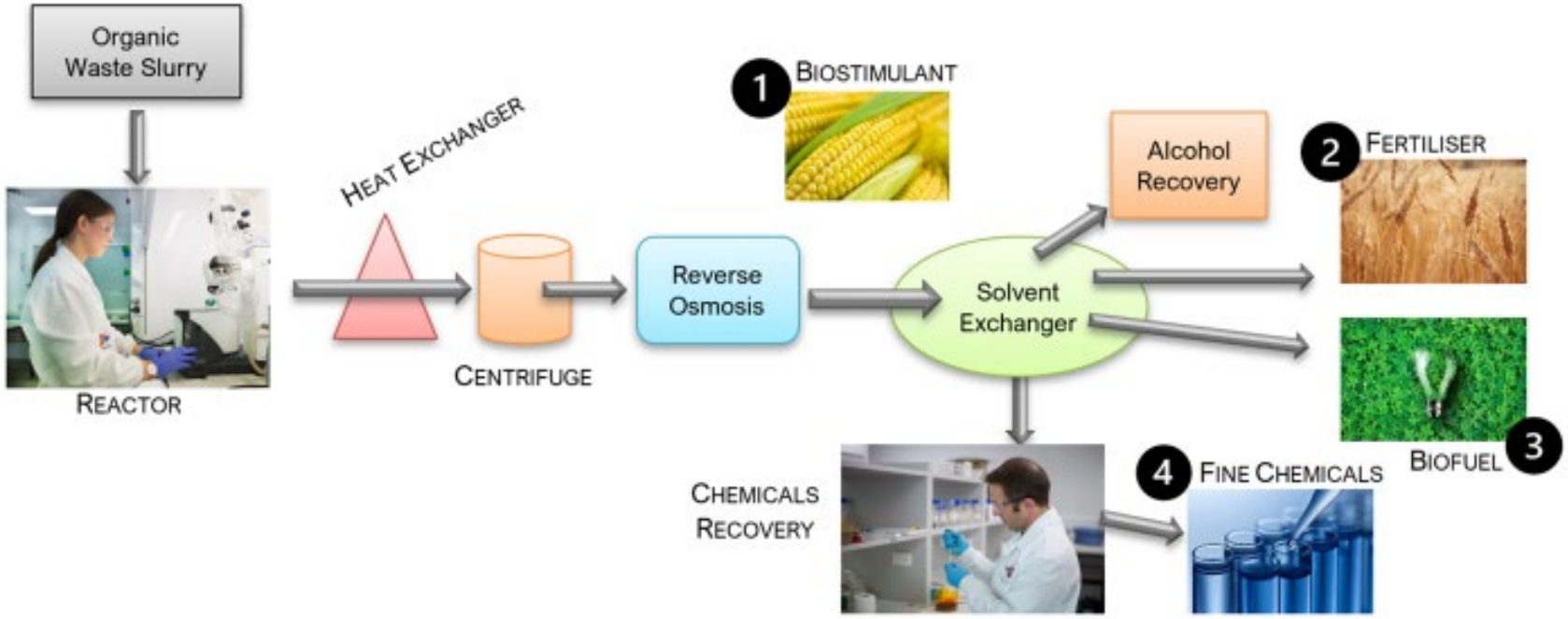
This technology will allow for ;

- The conversion of and removal of waste
- The conversion of waste into valuable end user products
- Conversion of potential liabilities into assets
- Reduce the impact of waste storage in landfill
- Potential use in mineral extraction capability
- Positive impact on the Circular Economy
- Multi sector applications including Mining, Oil & Gas, Energy, Recycling, Resources and Agriculture



OHD ROI

How Does Waste Generate Money?



≥ 4 revenue streams identified to-date including biostimulants production, fertiliser, biofuels, fine chemicals

OHD Highlights

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Oxidative Hydrothermal Dissolution (OHD) Technology

- Benchtop Flow Reactor Built and Commissioned for Operation
- Proof of Concept for;

- Coal –
  - Victorian Brown Coal à Biostimulants, high value fine chemical products, precursors to "green" biodegradable plastics
  - Collie Coal à Fine chemicals
  - Biomass (ligno-cellulosic)
  - Agricultural and other wastes, including saw dust, Bagasse (sugar cane waste) and more Bioethanol / cellulosic ethanol (via subsequent fermentation), high value fine chemical products, precursors to "green" biodegradable plastics



WasteSorted e-Waste Grant

- AUD$200,000
- from the WA Government New Industries Fund
- OHD Technology Research and Development
- Conversion to metals, rare earth metals for Defence, Electronics and Electrics re-use industries
- • Expected but not yet proof of concept:
  - eWaste à fine chemicals, monomers for regeneration of plastics – i.e. plastic recycling, recovery of tin, lead, copper, precious metals (gold, platinum etc.) and rare earth metals for use in Defence and re-use of electronics and electrics
  - eWaste processing likely to destroy environmentally problematic flame retardants and convert plastic waste to reduce land fill

Australian Government Department of Industry Science, Energy &Resources

- Curtin University/WA School of Mines Partnership – Curtin Innovation connections
- Mineral Extraction
- Investigate the potential of OHD liquors for hydrometallurgy and mineral processing applications.
- Potential for mining waste removal and/or conversion to valuable chemical resources (e.g. mining waste, polyurethane, rubber tyres)

OHD Video

- https://epichem.com.au/wp-content/uploads/2021/08/OHD-video-2021-08.mp4

Epichem 2021 Highlights

WESTERN AUSTRALIAN EXPORT AWARDS
INTERNATIONAL HEALTH
2021 WINNER

epichem
Our Formula. Your Success.

DNDi Contract Extension

- Secured for 13th consecutive year
- Contract has delivered AU$15m+ revenue
- 500 compounds delivered in 2020

Oxidative Hydrothermal Dissolution (OHD) Technology

- Extension of material science chemistry expertise
- Conversion of biomass & feedstock into useful end products & recovering valuable & critical metals
- Direct sub licence agreement

WasteSorted e-Waste Grant

- AU$200,000 from WA Government New Industries Fund
- OHD technology research & development
- Benchtop flow reactor build

Australian Export & Investment Awards 2021

- WA Exporter of the Year for International Health

EFA Loan Repaid

- Epichem has paid off its debt liability on time for a major laboratory expansion
- Financial milestone achieved



Q & A SESSION

www.pharmaust.com

@PharmAust

PharmAust LIMITED

ASX: PAA

FRA: ECQ

ACN 094 006 023



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