KINTARA Therapeutics

Developing Advanced Oncology Therapies for Rare Unmet Medical Needs

Corporate Presentation

June 2022

CONFIDENTIAL

Forward Looking Statements

This presentation contains forward-looking statements based upon Kintara's current expectations. This communication contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are identified by terminology such as "may," "should," "expects," "plans," "anticipates," "could," "intends," "target," "projects," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar words. These statements are only predictions. Kintara has based these forward-looking statements largely on its then-current expectations and projections about future events, as well as the beliefs and assumptions of management. Forward-looking statements are subject to a number of risks and uncertainties, many of which involve factors or circumstances that are beyond Kintara's control, and actual results could differ materially from those stated or implied in forward-looking statements due to a number of factors, including but not limited to: (i) risks associated with the impact of the COVID-19 pandemic; (ii) risks and uncertainties relating to Kintara's ability to develop, market and sell products based on its technology; the expected benefits and efficacy of Kintara's products and technology; the availability of substantial additional funding for Kintara to continue its operations and to conduct research and development, clinical studies and future product commercialization; and, Kintara's business, research, product development, regulatory approval, marketing and distribution plans and strategies, and (iii) those risks detailed in Kintara's most recent Annual Report on Form 10-K and subsequent reports filed with the SEC, as well as other documents that may be filed by Kintara from time to time with the SEC. Accordingly, you should not rely upon forward-looking statements as predictions of future events. Kintara cannot assure you that the events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results could differ materially from those projected in the forward-looking statements. The forward-looking statements made in this communication relate only to events as of the date on which the statements are made. Except as required by applicable law or regulation, Kintara undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. Investors should not assume that any lack of update to a previously issued "forward-looking statement" constitutes a reaffirmation of that statement.

Late-stage Oncology Company with Two De-Risked Product Candidates

VAL-083: A first-in-class small molecule with unique MOA (MW = 146)

- Pivotal, pre-eminent GBM AGILE International registrational study for three GBM patient subtypes initiated January 2021
- ~$1B[1] market opportunity in lead program: Glioblastoma Multiforme (GBM)
  - Multiple shots on goal via parallel enrollment of three GBM patient subtypes
  - Over 1,200 patient safety database via ~40 prior studies

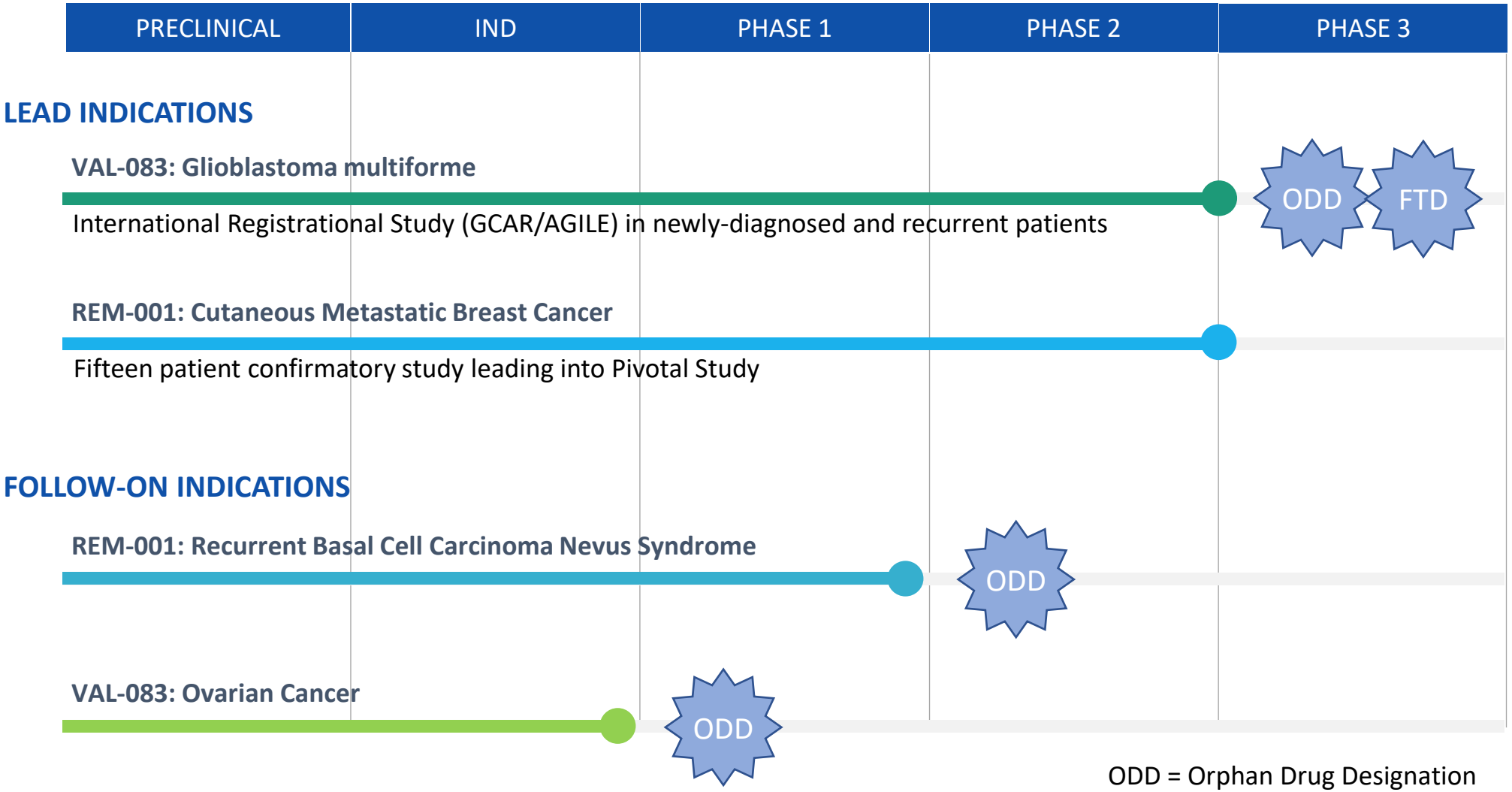
REM-001: 2nd generation photodynamic therapy platform

- 15-patient confirmatory study initiation planned for Mid-2022, prior to Phase 3 trial
- ~$500M[2] market in lead program: Cutaneous Metastatic Breast Cancer
  - Extensive Phase 2/Phase 3 efficacy data (80% complete responses across four trials)
  - Over 1,100 patient safety database

Multiple follow-on indications with existing orphan designations and/or approved INDs

[1]GlobalData November 2018
[2]Charles River Associates April 2018

Kintara Product Pipeline – Multiple Shots on Goal



Around the End of 2023:
Top line results - GCAR GBM AGILE International Registrational Study

Mid-2022: Projected first patient enrolled in 15-patient study

ODD = Orphan Drug Designation
FTD = Fast Track Designation

VAL-083: GBM Opportunity

> "Survival rates for patients with GBM have shown no notable improvement in population statistics in the last three decades."
>
> Tamimi AF, Juweid M. Epidemiology and Outcome of Glioblastoma. In: De Vleeschouwer S, editor. Glioblastoma [Internet]. Brisbane (AU): Codon Publications; 2017 Sep 27. Chapter 8. PMID: 29251870.

> "No new systemic therapy has been approved for use against glioblastoma in almost two decades."
>
> Lyne SB, Yamini B. An Alternative Pipeline for Glioblastoma Therapeutics: A Systematic Review of Drug Repurposing in Glioblastoma. Cancers (Basel). 2021;13(8):1953. Published 2021 Apr 18. doi:10.3390/cancers13081953

>$800M market growing to $1.4B in 2027[1]

- ~30,000 newly-diagnosed patients in US/EU
- ~14,000 recurrent patients in US/EU

GBM AGILE Phase 2/Phase 3 international registration study:

- FDA approved & strongly endorsed adaptive design
- Involvement from numerous KOLs
- Partnership with Global Coalition for Adaptive Research (GCAR)

Kintara is enrolling in all three GBM AGILE patient subtypes:

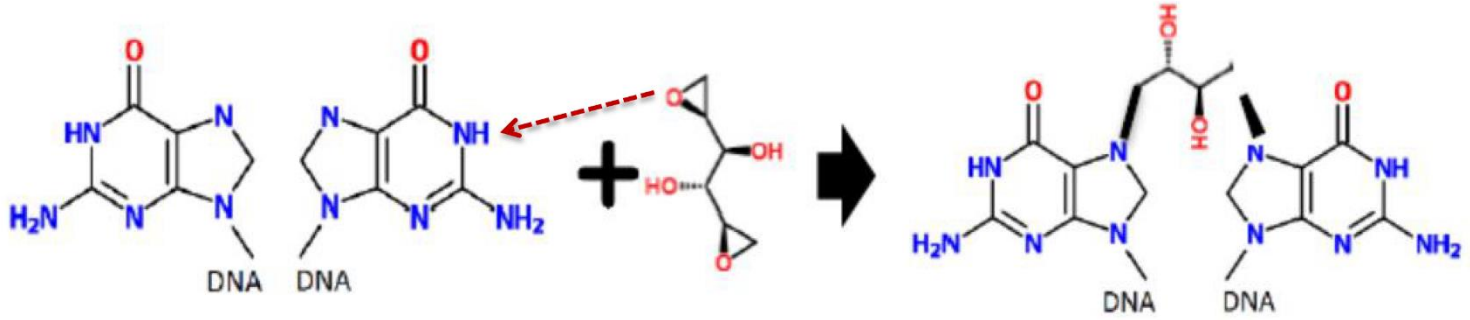
- Newly-Diagnosed Unmethylated (>60% of GBM patients)
- Newly-Diagnosed Methylated (<40% of GBM patients)
- Recurrent

[1]GlobalData November 2018

VAL-083 Mechanism of Action

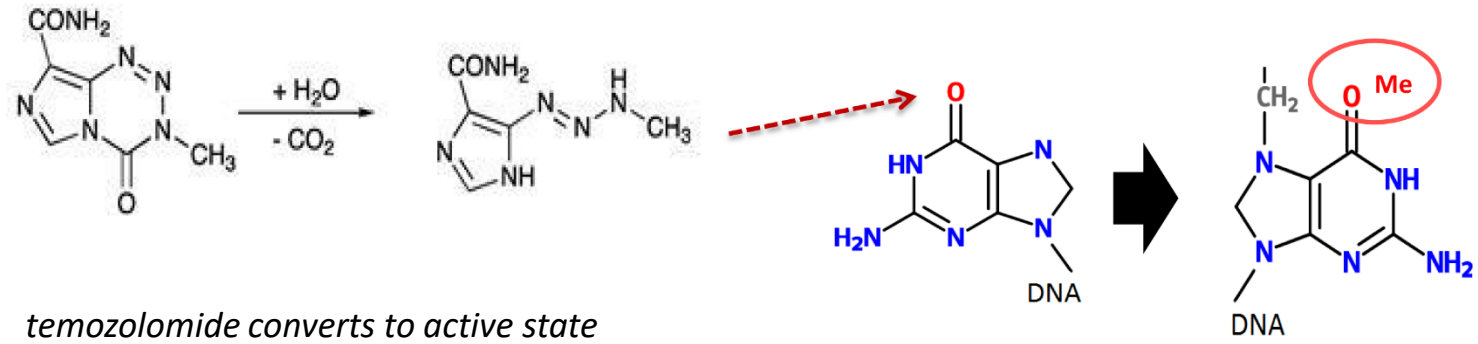
VAL-083's unique DNA targeting mechanism circumvents MGMT-mediated chemoresistance and differentiates it from other therapies used in the treatment of GBM, including TMZ.

VAL-083's unique mechanism of action creates inter-strand DNA cross-links at the N^7 position of guanine, resulting in double-strand DNA breaks and cancer cell death via apoptosis



2 guanine bases on DNA *VAL-083* *VAL-083 – interstrand crosslink (ICL)*

Mechanism of VAL-083 via crosslinks at N^7 of guanine



temozolomide converts to active state (MTIC) at physiological pH *guanine base on DNA* *alkylation of O^6 guanine*

Mechanism of temozolomide (TMZ) via alkylation at O^6 of guanine

VAL-083 vs Standard-of-Care TMZ

VAL-083	TMZ
Bifunctional DNA alkylating agent	Monofunctional
Induces DNA interstrand crosslinks	Does not induce DNA interstrand crosslinks
Induces double strand DNA breaks (DSB): non-repairable and lethal to tumor cells	Induces single strand DNA breaks (SSB): tumor cells can repair
Administered IV with very reproducible pharmacokinetics	An oral prodrug with varying bioavailability
Achieves peak brain concentrations that are ~20% higher than corresponding plasma levels	Achieves peak brain concentrations ~80% lower than peak plasma levels
Activity similar in both methylated and unmethylated MGMT GBM cells	Unmethylated MGMT GBM cells very resistant to TMZ
Twice as potent as TMZ for methylated MGMT GBM cells	Half as potent as VAL-083 for methylated MGMT GBM cells

VAL-083: Clinical Data - Phase 2 Studies Top Line Results

Newly-Diagnosed Patients (MGMT-unmethylated)	Evaluable 30 mg Patients	Median Progression Free Survival	Median Overall Survival
TMZ Historical Comparator		*5.0-6.9 months*[1,2,3]	*12.7-16.0 months*[1,2,3]
SYSUCC Newly-Diagnosed [First Line]	n=25	8.7 months	19.1 months
MDACC Newly-Diagnosed [Adjuvant]	n=36	9.5 months	16.5 months

Recurrent Patients (MGMT-unmethylated)	Evaluable 30 mg Patients	Median Overall Survival
Lomustine Historical Comparator		*7.2 months*[4]
MDACC Recurrent	n=48	8.0 months

[1]*Hegi et al N Eng J Med (2005)*
[2]*Tanguturi et al. NeuroOncol (2017)*
[3]*Alnahhas et al. Neurooncol Adv (2020)*
[4]*Wick et al N.Eng.J.Med (2017)*

Open label Phase 2 studies in unmethylated patients; treatment dose for GCAR GBM AGILE Study;

VAL-083: FDA Approved Expedited Development and Registration Pathway

Collaboration with the Global Coalition for Adaptive Research (GCAR)

- Founded in 2017 by world's foremost clinical, translational, basic science investigators, and health authorities
- Sponsor of innovative and complex platform trials utilizing adaptive design
- Prior success via I-SPY with similar design for breast cancer

GBM Adaptive Global Innovative Learning Environment (AGILE) Study

- International effort in newly-diagnosed and recurrent glioblastoma
- Master Protocol with three or more experimental arms versus a common control
- Primary endpoint: overall survival
- "Seamless" transition to Stage 2, with Stage 1 patients included in final analysis
- Final analysis 12 months after last patient randomized

150 to 200 Patients Maximum Stratified by Three Subtypes

- Newly-diagnosed methylated
- Newly-diagnosed unmethylated[1]
- Recurrent[2]

[1]Comparable to MDACC Phase 2 trial – adjuvant cohort
[2]Comparable to MDACC Phase 2 Trial – recurrent cohort

Jan 2021
First site initiated for VAL-083 treatment arm

May 2021
15 sites active for VAL-083 treatment arm

Mar 2022
43 sites active, including 4 Canadian sites, for VAL-083 treatment arm

May 2022
44 sites active, including 4 Canadian and 1 EU site, for VAL-083 treatment arm

Around the End of 2023
Top line results 12 months after last patient enrolled

GCAR/GBM AGILE Advantages

Utilized non-profit funding to design and initiate GBM trial (1st patient enrolled: June 2019)

Principals successful in platform and adaptive design paradigm per highly successful breast cancer trial

- (I-Spy): 10-year trial, 16 compounds tested, three received FDA accelerated approval

Regulatory buy-in at highest level with strong FDA support

Rapid study startup and patient enrollment

- Turn-key solution
- 44 sites currently enrolling Kintara arm:
  - Includes four sites in Canada and one site in Europe
- Expanding into additional sites in the EU in the near future
- Shared control group:
  - Contains costs and accelerates speed of study
  - Has been enrolling for over two years
- Provides significant time and cost savings vs. multiple trials
- Avoids company scale up of fixed expenses for trial execution

GLOBAL COALITION FOR ADAPTIVE RESEARCH™

"Platform trials can accelerate the time from discovery in the laboratory to implementation in the clinic. ***GBM AGILE will raise the bar for all clinical trials****."*

Janet Woodcock, M.D.
Director of the Center for Drug Evaluation and Research
U.S. Food and Drug Administration

https://www.businesswire.com/news/home/20190619005230/en/Global-Coalition-Adaptive-Researchs-Innovative-Clinical-Trial

GCAR: GBM AGILE Major Clinical Sites/Investigators

Principal Investigators of Kintara's arm of the GBM AGILE study:

Dr. John de Groot
Division Chief Neuro Oncology Division
Department of Neurological Surgery
University of California San Francisco

Dr. James Perry
Professor of Neurology
University of Toronto
Sunnybrook Research Institute

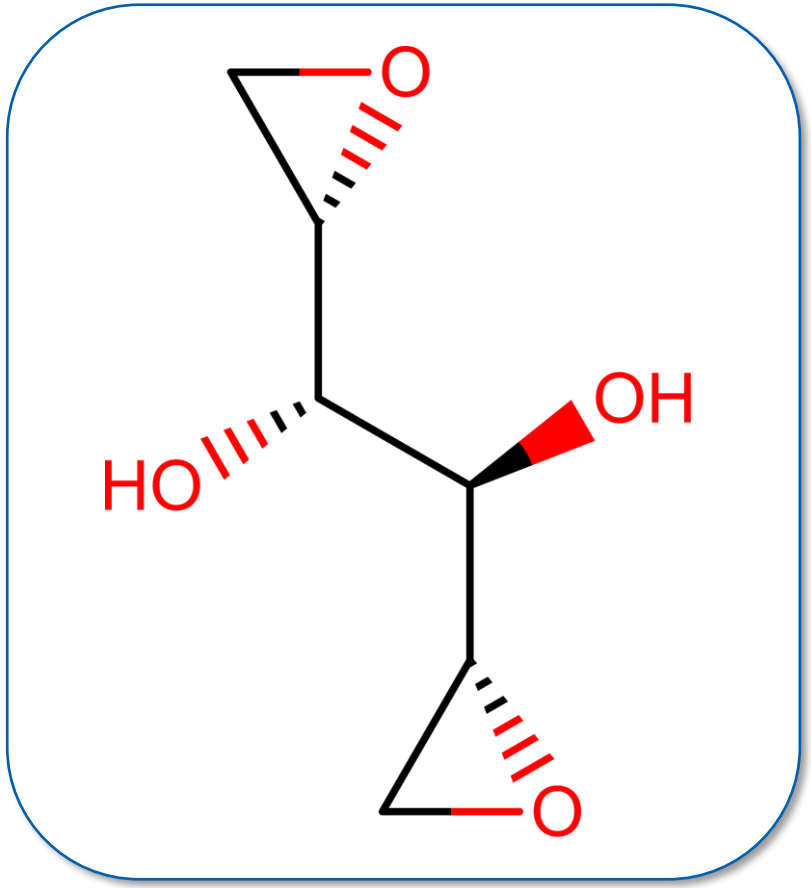
With 40 sites enrolling, GBM AGILE includes Key Opinion Leaders and leading clinical sites:

- Henry Ford Health System - Detroit
- Dana Farber Cancer Institute - Boston
- Memorial Sloan Kettering Center - New York
- Mount Sinai - New York
- MD Anderson Cancer Center - Houston
- Cleveland Clinic - Cleveland
- Mayo Clinic Cancer Center - Jacksonville
- Duke University Medical Center - Durham

"GBM AGILE is an innovative clinical trial approach that enables us to simultaneously and dynamically study the effects of multiple new drug candidates. With the inclusion of paxalisib and VAL-083 for newly-diagnosed unmethylated and recurrent GBM patients, as well as VAL-083 for the additional methylated GBM patient group, we are excited to offer all GBM patients access to these latest therapies."

- Dr. James Perry

VAL-083: FDA Approved Expedited Development and Registration Pathway



Current Clinical Status

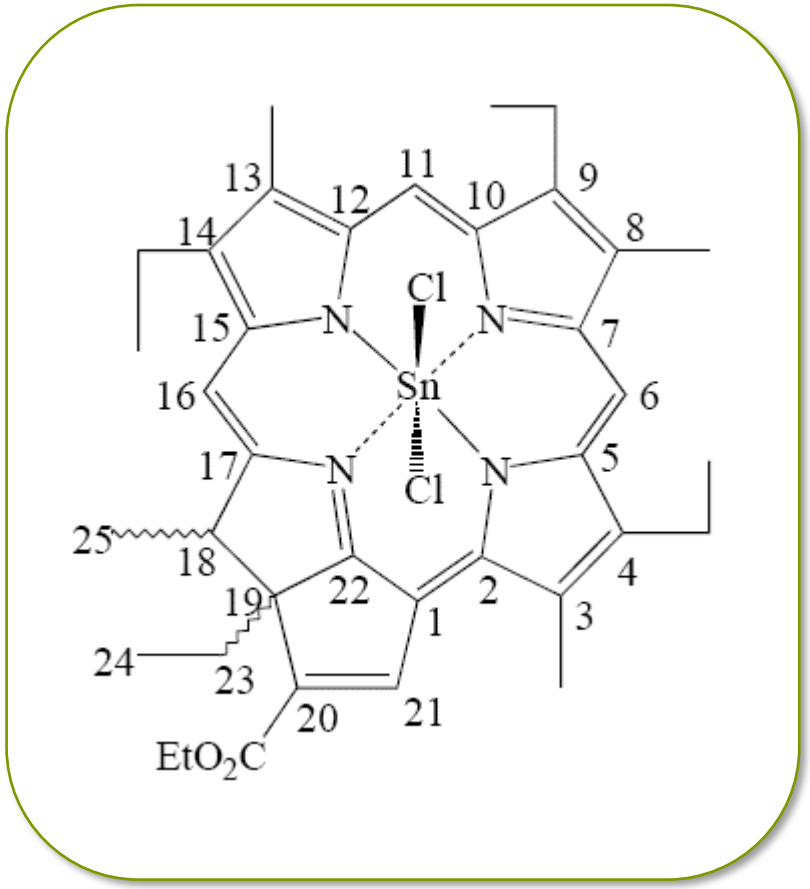
January 2021:

- Kintara jumps on “a fast-moving train” with GBM AGILE
- Current patient enrollment better than initially anticipated
- Over 1,000 patients screened

Kintara’s VAL-083 is participating in all three patient subtypes:

- Newly-diagnosed MGMT-unmethylated (>60% of GBM patients)
- Newly-diagnosed methylated (<40% of GBM patients) — Kintara / VAL-083 only
- Recurrent

REM-001: 2nd Generation Photodynamic Cancer Therapy
CMBC Overview



Cutaneous Metastatic Breast Cancer is a major unmet medical need

Up to 40,000 patients in the U.S.[1], representing $500M market opportunity[2]

Clinical aspects: Highly morbid form of breast cancer

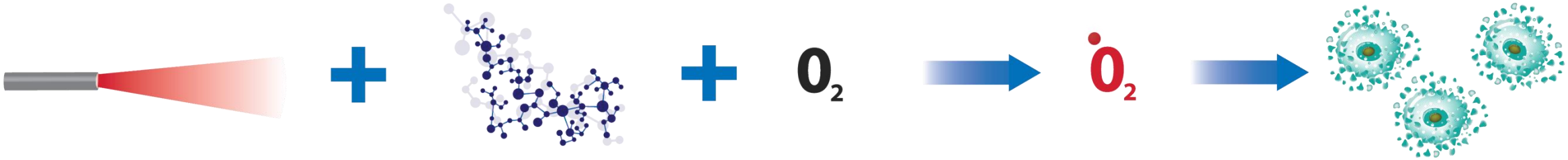
- Bleeding, infectious and malodorous lesions on chest wall, neck and back
- Narcotics for pain control

Limited current therapies

- Chemotherapy: generally non-responsive
- Radiation: dose limiting toxicities, lesions are often refractory to radiation

[1]Source (a): Saika et al, 2009; Kamaraju et al, 2016; Vano-Galvan et al, 2009; GlobalData Report on Metastatic Breast Cancer; Schoenlaub et al, 2001
[2]Charles River Report April 2018

Photodynamic Therapy Mechanisms of Action



Light
Energy Source

Photosensitizer
Catalyst to Activate, Absorb & Transfer Energy to Oxygen in Cells

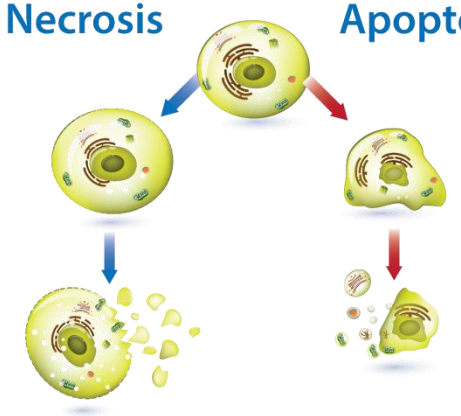
Oxygen in Cell
Converted to ROS by Energy Transfer

Reactive O_2 (ROS)
Created by Energy Transfer

Diseased Cell Death
ROS Provides Mechanism of Action

PDT induces elimination of diseased cells by immune response, apoptosis, antiangiogenesis and necrosis

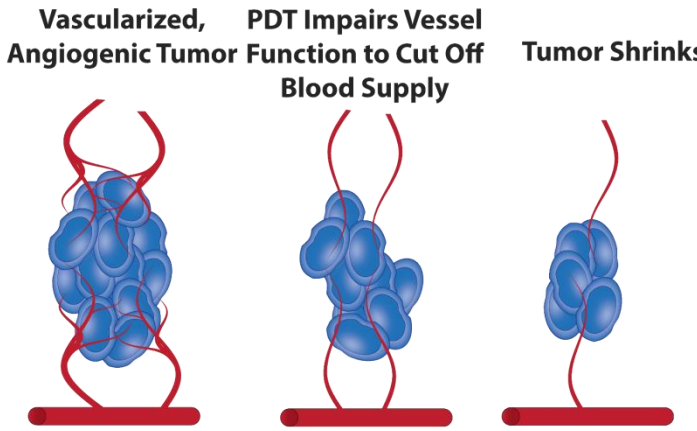
Necrosis / Apoptosis



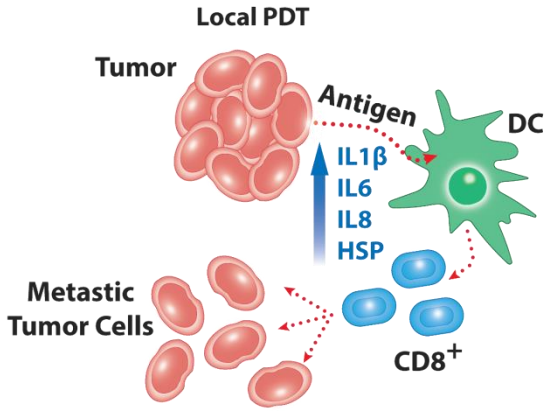
Enzymatic Digestion and Leakage of Cellular Contents

Phagocytosis of Apoptotic Cells and Fragments

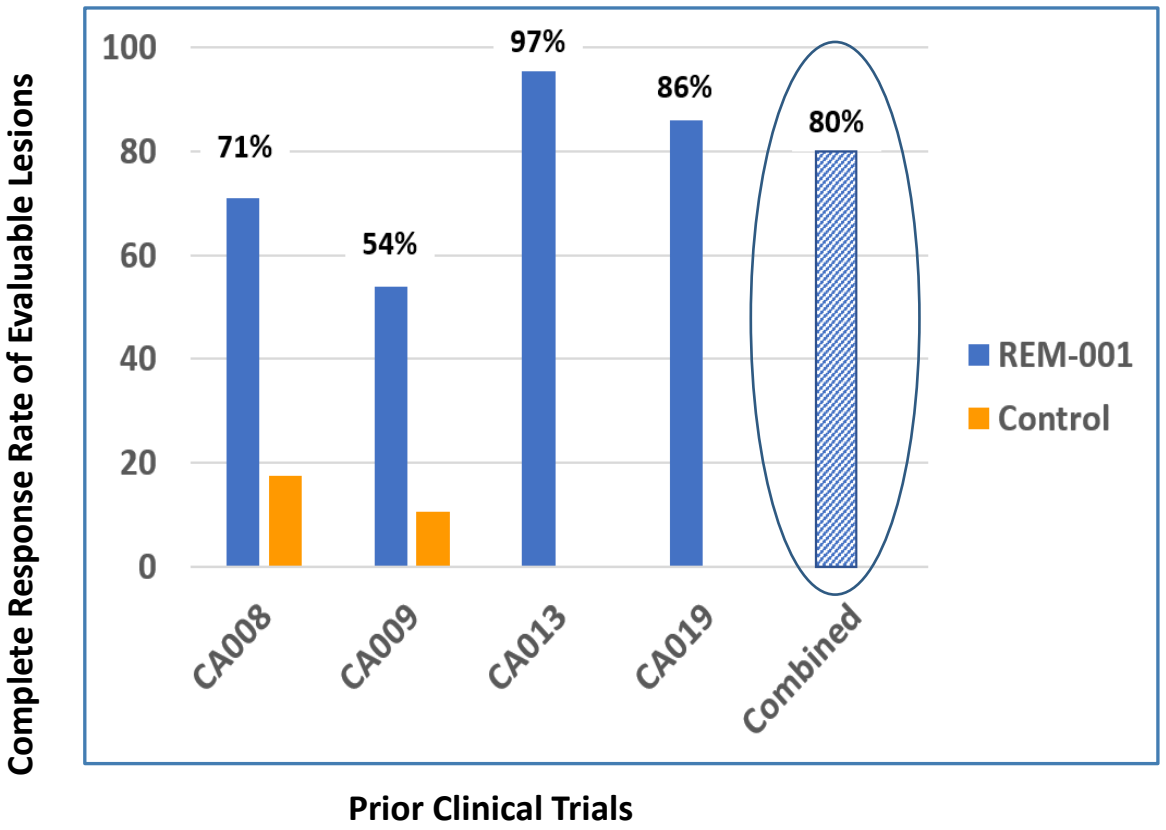
Antiangiogenic / Anti-vascular



T - Cell Response



REM-001: High Response Rates in CMBC



Second Generation Photodynamic Therapy

- Light activated cancer therapy

Extensive data from prior Phase 2/Phase 3 clinical trials

- 149 patients treated in 4 trials
  - 80% complete response rate in 674 evaluable lesions

Localized Outpatient Treatment

- IV drug infusion accumulates in tumors
- Activated by simple red light

Safety database ~1,100 patients

Previous trial experience used to optimize current trial design

REM-001: CMBC Development Plan

Development plan optimized for success while minimizing cost

- Phase 3 ready
- Initial open-label, 15-patient study to confirm lower dose and optimize trial design
- Leverages prior data indicating lower dose can improve outcome
  - Faster healing
  - Less photosensitivity
- De-risks full Phase 3 study

Anticipated study start in Mid-2022

Study Design and CMC

15-Patient Confirmatory Study Initiated (projected)

15-Patient Study Top Line Results (projected)

Initiation of Phase 3 Registration Study

Indication Expansion Opportunities

VAL-083

- Platinum resistant Ovarian Cancer[1]
- Non-Small Cell Lung Cancer[1]
- Other Solid Tumors, including pediatric indications

REM-001

- Other Cutaneous Metastatic Cancers
- Recurrent Basal Cell Carcinoma Nevus Syndrome[2]
- Locally Advanced Basal Cell Carcinoma (laBCC)
- Peripheral Lung Cancer
- Hemodialysis Arteriovenous (AV) Access

[1]*Prior Phase 1 and Phase 2 studies completed by NCI*

[2]*Demonstrated positive results in prior sponsor's Phase 2 study*

Barriers to Competition

VAL-083

GBM Orphan drug designation in US and EU
- Seven years market exclusivity after approval in US
- 10 years market exclusivity after approval in Europe

Fourteen patent families
- Claims to methods of use, dosing and administration, combinations, manufacturing, analytical methods, and methods of synthesis

Fourteen US granted patents and forty-five patents granted worldwide
- Expiry dates range from 2031 to 2038

Ovarian Cancer Orphan Drug Designation in US

REM-001

New Chemical Entity
- Five years data exclusivity after approval in US
- 8+2+1 Regime in Europe

Combination Product Regulatory Pathway
- REM-001 and Laser Device

Follow-on Indication Orphan Drug Designations in US
- Basal cell carcinoma nevus syndrome (BCCNS)
- Hemodialysis access grafts

Upcoming Milestones/Value Inflection Events

Q1 2021
- Commence Enrollment - GCAR GBM AGILE International Registrational Study ✓

Q2 2021
- AACR Posters – Data updates for Phase 2 GBM Studies ✓
- Top Line Results - Phase 2 Recurrent GBM Study ✓

Q3 2021
- Top Line Results - Phase 2 Newly Diagnosed Adjuvant GBM Study ✓

Q4 2021
- First site in Canada – GCAR GBM AGILE International Registrational Study ✓

Q2 2022
- First site in the EU – GCAR GBM AGILE International Registrational Study ✓

Mid-2022
- Initiate 15-patient CMBC confirmatory trial

Mid-2023
- Top line results from 15-patient CMBC confirmatory trial

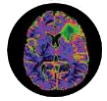
Around the End of 2023
- Top line results 12 months after last patient randomized - GCAR GBM AGILE International Registrational Study

Seasoned Biopharma Leadership Team

Robert Hoffman President and CEO Chair, Board of Directors	CEO of Kintara from November 2021, Chair of Board from June 2018; Board member of ASLAN Pharmaceuticals and Antibe Therapeutics; previously served as Senior Vice President and Chief Financial Officer of Heron Therapeutics from April 2017 to October 2020; part of the founding management team of Arena Pharmaceuticals in 1997, serving in various roles until 2015, including Senior Vice President, Finance and Chief Financial Officer
Greg Johnson (Acting) Head of Operations	Acting head of operations since January 2018; 29 years of international clinical research and drug development experience; 10 years at MedGenesis Therapeutix Inc. initially as COO, then President and CFO; 15 years at PRA International (now ICON) in a variety of senior roles in four different countries; M.Sc. in Clinical Research; Fellow of the Institute of Clinical Research (FICR)
Scott Praill CFO	CFO of Kintara since January 2013; previously consulted with multiple companies including Kintara; served as Director of Finance for Inflazyme Pharmaceuticals; worked at PricewaterhouseCoopers LLP for four years and completed a CPA in 1996
Dennis Brown CSO	Kintara founder, and Chief Scientific Officer since January 2013; served as a member of Board of Directors from February 2013 to April 2018; more than 30 years of successful drug discovery and development experience; B.A. in Biology and Chemistry, M.S. in Cell Biology, Ph.D. in Radiation and Cancer Biology

Scientific Advisory Boards

GBM Scientific Advisory Board



Dr. John de Groot (PI for Kintara/VAL-083 in GBM AGILE)
University of California San Francisco
Division Chief Neuro Oncology Division, Department of Neurological Surgery

Dr. Timothy Cloughesy (Overall PI for GBM AGILE)
David Geffen School of Medicine (UCLA)
Professor of Neurology
UCLA Brain Research Institute and Jonsson Comprehensive Cancer Center
Member

Dr. Napoleone Ferrara
University of California, San Diego
World renowned scientist and Distinguished Professor of Pathology and a Distinguished Adjunct Professor of Ophthalmology and Pharmacology

Dr. David Reardon
Dana-Farber Cancer Institute
Clinical Director of the Center for Neuro-Oncology
Harvard Medical School
Professor of Medicine

Dr. Nicholas Butowski
UCSF Medical Center
Neuro-oncologist
Brain Tumor Center
Director of Translational Research in Neuro-Oncology and Researcher

CMBC Scientific Advisory Board

Mario Lacouture, MD
Memorial Sloan Kettering Cancer Center
Director, Oncodermatology Program
Leading expert in treatment of cutaneous metastases in cancer

Thomas S. Mang, PhD
University at Buffalo (UB) School of Dental Medicine*
Director of Research for Oral and Maxillofacial Surgery Department
Recognized PDT expert and prior clinical work with REM-001 Therapy

Stephen B. Solomon, MD
Memorial Sloan Kettering Hospital
Chairman, Interventional Radiology and Co-Director, Image-Guided Intervention
Specializes in image-guided interventions in cancer

Leonard A. Farber, MD
Weill Cornell Hospital*
Radiation Oncologist
Specialties include adult radiation oncology for breast cancer patients
Experience in treating CMBC and recurrent basal cell carcinoma

**Prior affiliations*

Investment Highlights

- Late-stage oncology company with two highly de-risked assets for underserved indications

- VAL-083
  - Initiated GBM AGILE International Registrational Study: January 2021 with VAL-083 enrolling all three GBM AGILE patient subtypes
  - Accelerated clinical pathway with strong regulatory support and 44 sites enrolling in Kintara arm
  - >$1B market opportunity[1]

- REM-001 — Light activated cancer therapy diversifies late-stage oncology pipeline
  - 80% complete responses across four clinical trials to date in CMBC
  - 15-Patient confirmatory study initiation planned for Mid-2022, prior to Phase 3 trial
  - $500M market opportunity[2]

- Significant upcoming milestones/value inflection events
  - Mid-2022: Initiate 15-patient CMBC confirmatory trial
  - Mid-2023: Top line results from 15-patient CMBC confirmatory trial
  - Around the End of 2023: Top line results from GCAR GBM AGILE Study 12 months after last patient randomized

[1]GlobalData November 2018
[2]Charles River Associates April 2018