



Annual General Meeting

NOVEMBER 2022



IMPORTANT NOTICE AND DISCLAIMER

The information in this presentation does not constitute personal investment advice. The presentation is not intended to be comprehensive or provide all information required by investors to make an informed decision on any investment in Radiopharm Theranostics Ltd ACN 647 877 889 (Company). In preparing this presentation, the Company did not take into account the investment objectives, financial situation and particular needs of any particular investor.

Further advice should be obtained from a professional investment adviser before taking any action on any information dealt with in the presentation. Those acting upon any information without advice do so entirely at their own risk.

Whilst this presentation is based on information from sources which are considered reliable, no representation or warranty, express or implied, is made or given by or on behalf of the Company, any of its directors, or any other person about the accuracy, completeness or fairness of the information or opinions contained in this presentation. No responsibility or liability is accepted by any of them for that information or those opinions or for any errors, omissions, misstatements (negligent or otherwise) or for any communication written or otherwise, contained or referred to in this presentation.

Neither the Company nor any of its directors, officers, employees, advisers, associated persons or subsidiaries are liable for any direct, indirect or consequential loss or damage suffered by any person as a result of relying upon any statement in this presentation or any document supplied with this presentation, or by any future communications in connection with those documents and all of those losses and damages are expressly disclaimed.

Certain statements contained in this presentation, including, without limitation, statements containing the words “believes,” “plans,” “expects,” “anticipates,” and words of similar import, constitute “forward-looking statements.” Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Such factors include, among others, the following: the risk that our clinical trials will be delayed and not completed on a timely basis; the risk that the results from the clinical trials are not as favourable as we anticipate; the risk that our clinical trials will be more costly than anticipated; and the risk that applicable regulatory authorities may ask for additional data, information or studies to be completed or provided prior to their approval of our products. Given these uncertainties, undue reliance should not be placed on such forward-looking statements. The Company disclaims any obligation to update any such factors or to publicly announce the results of any revisions to any of the forward-looking statements contained herein to reflect future events or developments except as required by law.

Any opinions expressed reflect the Company's position at the date of this presentation and are subject to change.

Significant progresses since IPO towards our ambition of ***BECOMING THE RECOGNIZED LEADER IN FIGHTING CANCER THROUGH INNOVATIVE RADIOPHARMACEUTICAL THERAPIES***

PORTFOLIO EXPANSION

From 4 to 6 technologies, with addition of DUNP19 & PTP μ

CLINICAL PROGRESSES

Pivalate phase IIa data positive read out, 4 Phase I trials closer to be started

PARTNERSHIP WITH TOP ACADEMIC CENTRE

Joint Venture agreement with MD Anderson Cancer Center

BoD & MANAGEMENT STRENGTHENED

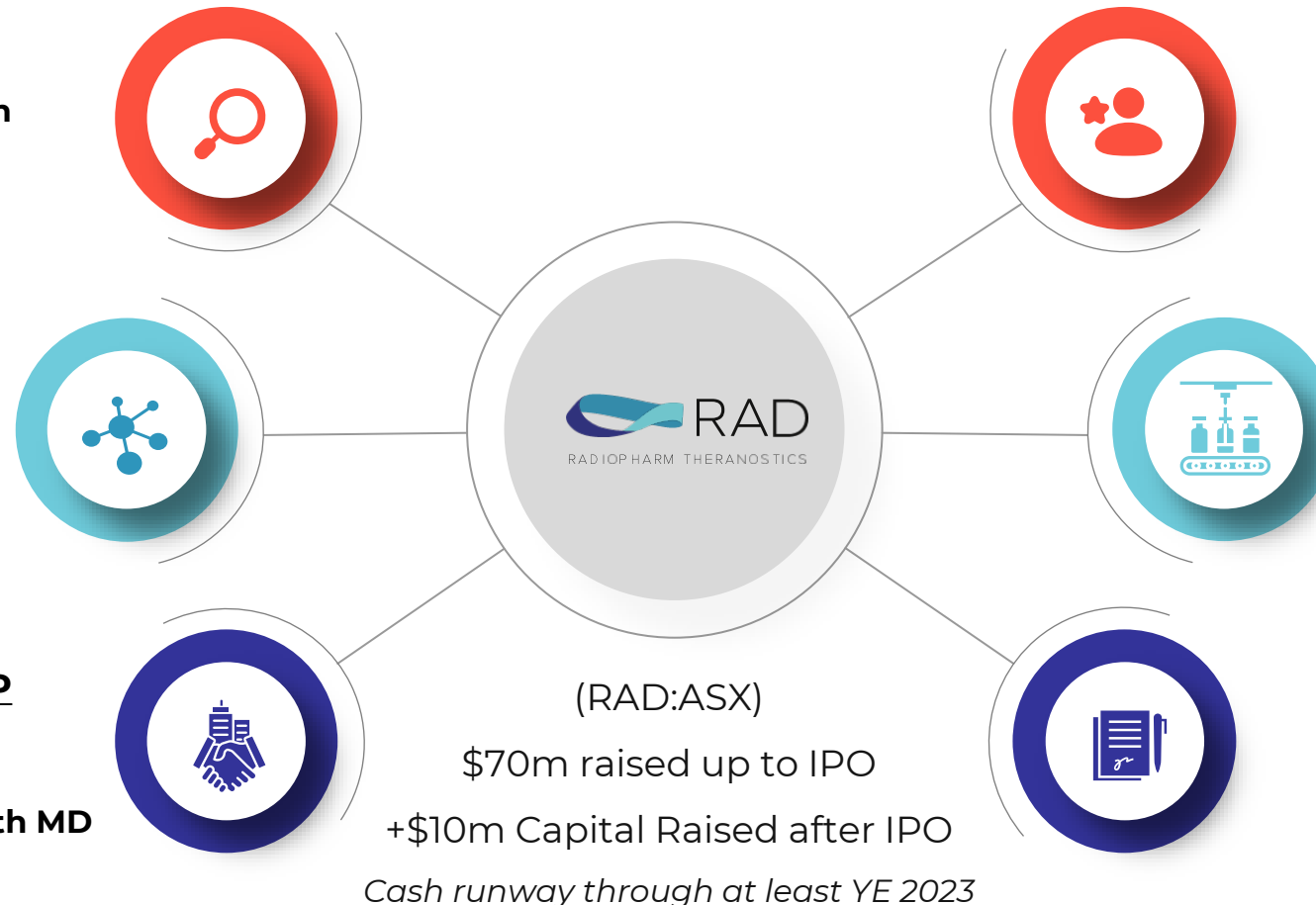
Two new BoD members, COO, VP Clinical Development, VP Clinical Ops, SVP Regulatory. SVP CMC (under finalization)

SUPPLY CHAIN SECURED

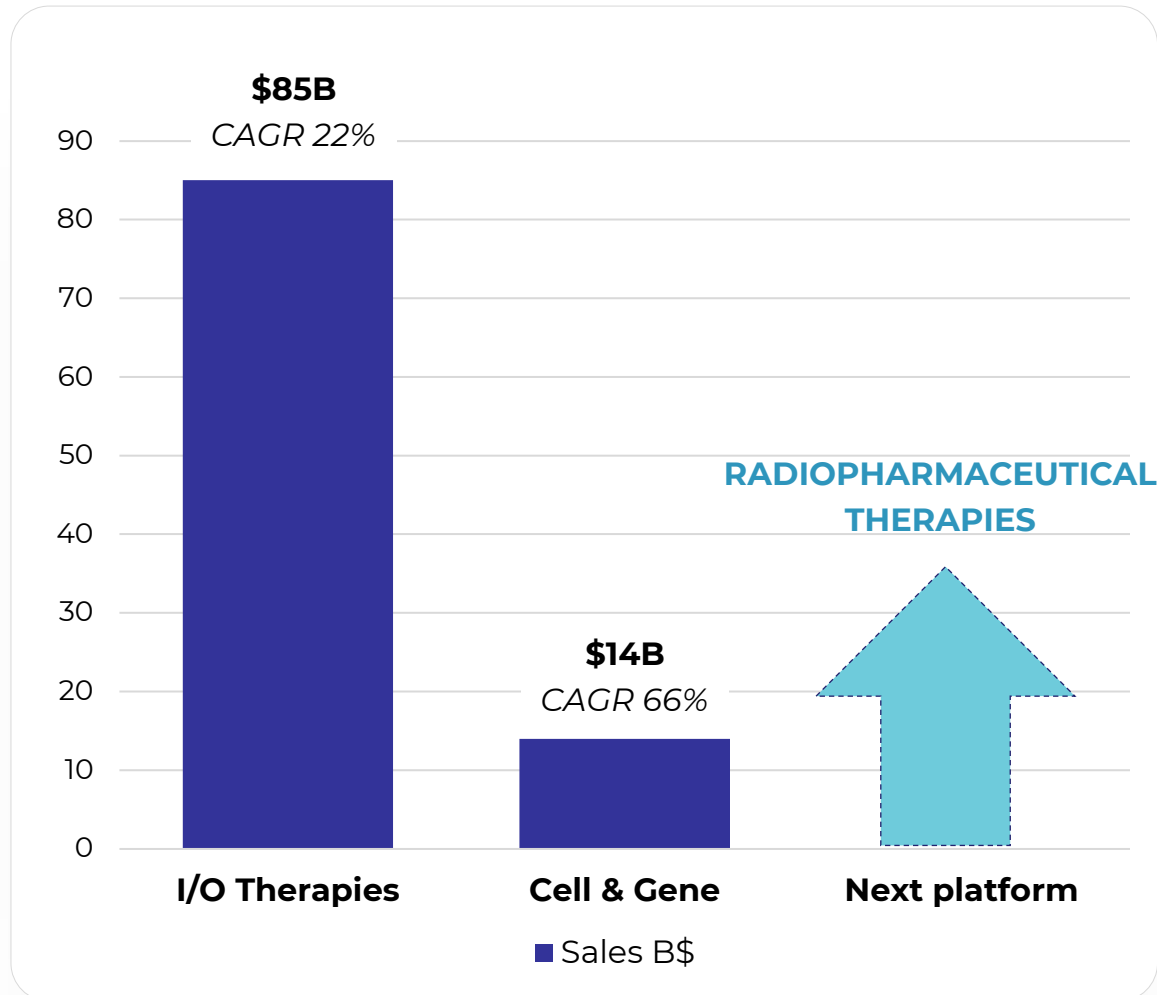
Two Lu177 & Two Ac225 Isotope supply agreements signed

PARTNERSHIP WITH TOP INDUSTRIES

Strategic agreement with Lantheus Medical Imaging



RADIOPHARMACEUTICAL THERAPY HAS THE POTENTIAL TO TRANSFORM THE CANCER TREATMENT PARADIGM



Worldwide Oncology Market in 2025

~\$290B; CAGR 5y (2020-2025) = 13%

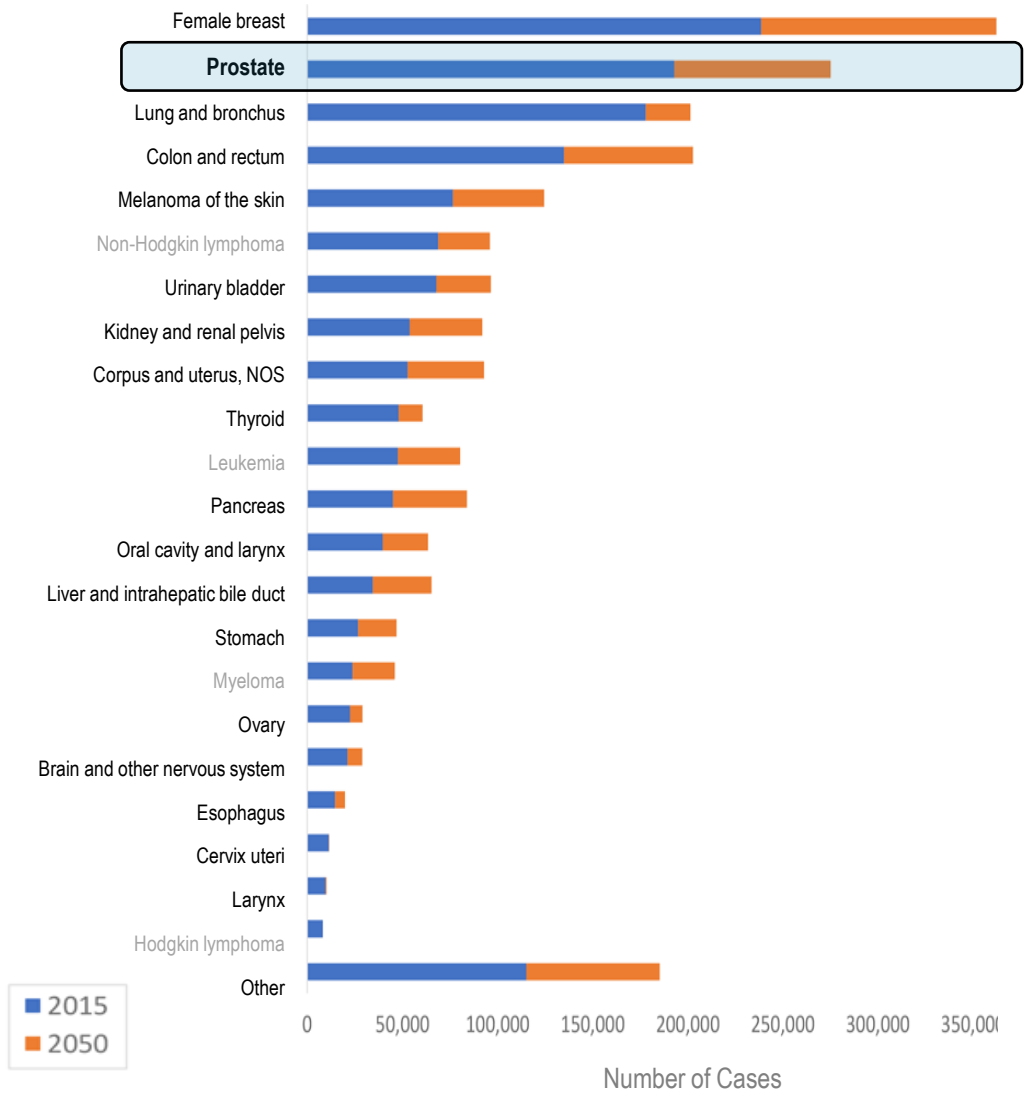
Chemo and Targeted Therapies

~\$190B; CAGR 5y (2020-2025) = 9%

Radiopharmaceuticals Designed to Enrich Current Pillars of Cancer Treatment

- Complement Surgery
- Postpone Need for Chemotherapy
- Enhance Targeted & Immuno-Therapies

PROSTATE THERANOSTICS: MOST RECENT SUCCESSFUL TARGETED RADIOPHARMACEUTICALS






Imaging

Combined analysts' peak sales consensus for:

Pylarify, Locametz, Illucix

~\$1B




FDA approved in 2021

Therapeutic

Analysts' peak sales consensus for:

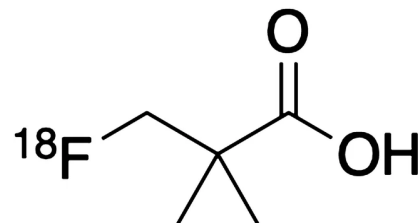
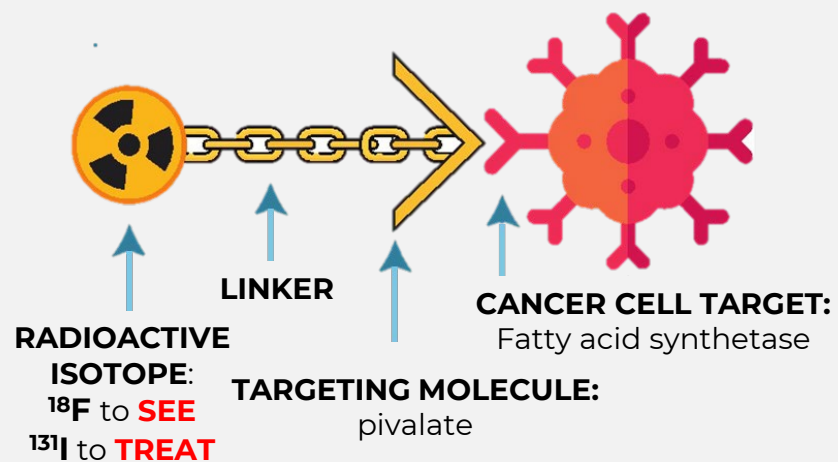
Pluvicto

~\$2.5B



FDA approved in 2022

F18-PIVALATE FOR IMAGING AND TREATMENT OF BRAIN METASTASIS



F18-PIVALATE

Selectively targets fatty acid synthetase which is overexpressed in tumors but not normal brain cells

F18-PIVALATE: LEAD PRODUCT CANDIDATE

Novel radiopharmaceutical for detection, characterization & progression monitoring of glioblastoma & brain metastases

~20-40% of cancer patients develop metastatic brain cancer during course of illness

Current imaging technologies (such as PET FDG & MRI) have limitations, due to necrotic, inflammatory & high sugar uptake confounding factors

F18-pivalate unique Mechanism of Action & transformational approach designed to overcome limits

Pivalate Delivers Positive Phase II Data In Brain Metastasis Trial

RAD 101 Phase IIa Clinical Trial: F18-pivalate PET/MRI Imaging

Patients with one or more cerebral metastases from different primary tumors of origin; breast, lung, melanoma & colorectal cancer

TRIAL ANALYSED:

- Selective F18-pivalate uptake in cerebral metastases
- Impact of Stereotactic Radiosurgery (SRS) on F18-pivalate uptake at early time points (4-8 weeks)
- 2 cohorts of patients: 11 treatment naïve & 6 SRS treated (4-8 weeks post treatment)

RESULTS

F18-pivalate PET showed high uptake regardless of origin of primary tumor

Indicates that pivalate can be used to detect & monitor cerebral metastases

- Patients without previous external beam radiation showed higher tumor uptake of radiopharmaceutical
- Previously treated patients show trend towards lower radiopharmaceutical uptake

The RAD 101 Phase II results were presented at a Joint Meeting of the European Organisation for Research and Treatment of Cancer (EORTC), the (USA) National Cancer Institute (NCI), and the American Association for Cancer Research (AACR) in Barcelona, Spain, 26-28 Oct 2022

POSITIVE PIVALATE TRIAL DATA IN BRAIN METASTASIS

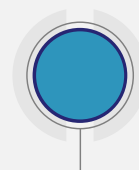
Pivalate Platform Next Steps:



RAD 101 (Imaging)

Scientific Advisory Board analysis of Phase IIa data to determine most appropriate clinical use (YE 2022)

Meet with FDA to determine regulatory pathway to accelerate development of pivalate for imaging (Q1 2023)



RAD 102 (Therapeutic)

Imaging Proof of Concept supports therapeutic development

Finalize therapeutic molecule radiochemistry

Leverage Phase IIa imaging data for Therapeutic Phase I protocol

RAD CODE	MOLECULE	INDICATION	DX / TX	ISOTOPE	COUNTRY	PRECLINICAL	PHASE I	PHASE II	PHASE III	NOTES
RAD 101	PIVALATE	BRAIN METS	Dx	F18	UK					POSITIVE PHASE II ACHIEVED

The RAD 101 Phase II results were presented at a Joint Meeting of the European Organisation for Research and Treatment of Cancer (EORTC), the (USA) National Cancer Institute (NCI), and the America Association for Cancer Research (AACR) in Barcelona, Spain, 26-28 Oct 2022

BRAIN METASTASIS MARKET OPPORTUNITY

Prostate cancer is the largest radiopharmaceutical imaging indication that received FDA approval
Best proxy for assessing Radiopharm's potential market opportunity for its brain metastasis indication

Cancer Type	New US Cases Per Annum	Eligible New Patients Per Annum	Price Per Dose	Potential Market Size ⁴	Companies with Lead Products in Indication
Prostate	248,000 <small>Source: SEER database US incidence</small>	170,000 <small>Source: IR LANTHEUS HOLDING 2021</small>	USD\$4,730 <small>Source: Taylor Collison</small>	USD\$804.1M	 LANTHEUS USD\$4.7B market cap ³  TELIX A\$1.7B market cap ³
Brain Metastasis ¹	390,000 <small>Source: SEER database - US incidence</small>	265,000 <small>Management estimate: Assumed same proportion of eligible patients as prostate</small>	USD\$4,730 ² <small>Management estimate: Assumed same pricing as prostate</small>	USD\$1,253.5M	 RAD RADIOPHARM THERANOSTICS A\$42.1M market cap ³

¹ Assumes RAD obtains FDA approval for F18-pivalate and that price per dose is equivalent to Prostate Cancer Diagnostic Imaging Agent, Pylarify

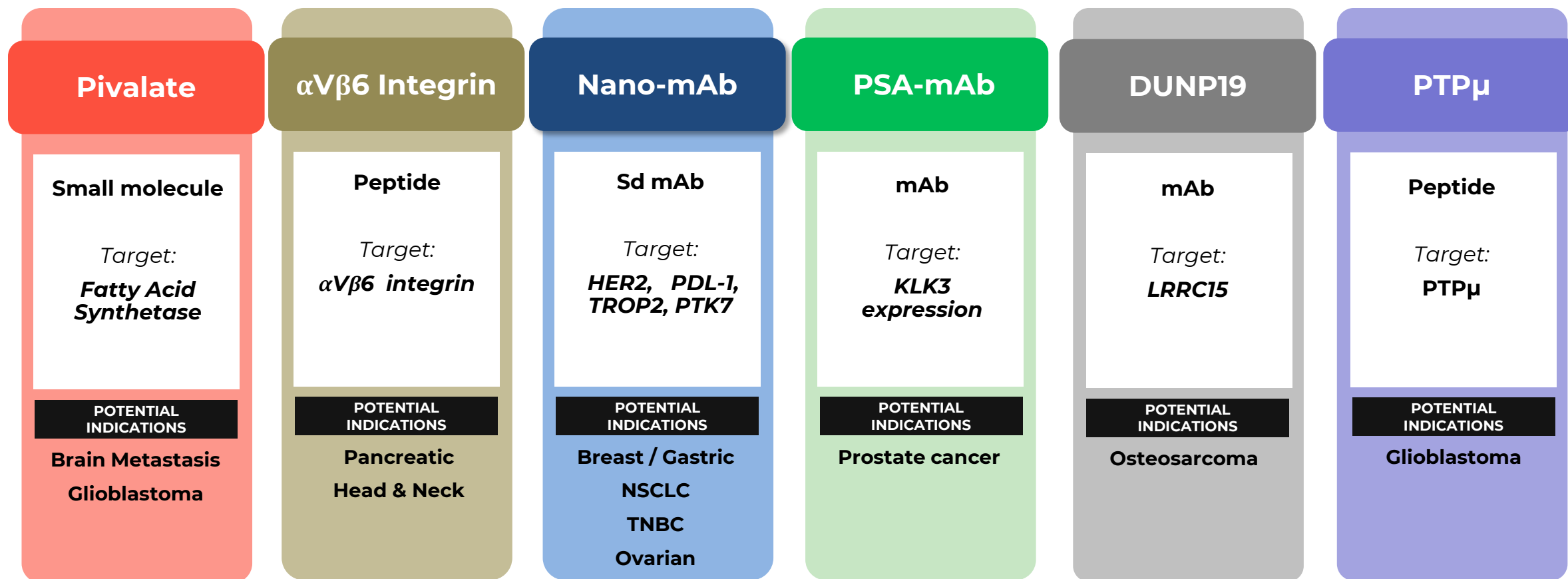
² Based on single dose per patient. (Potential for multiple doses per patient.)

³ Market capitalisation as at 13 October 2022

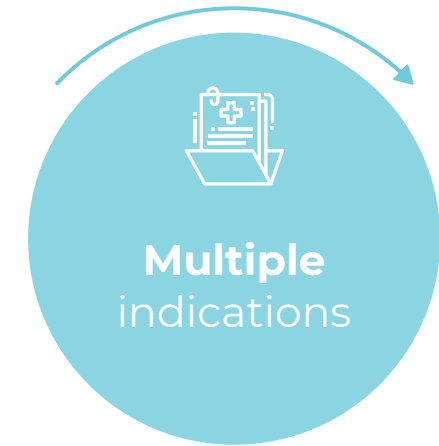
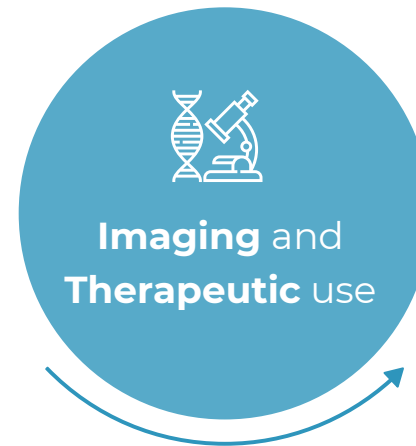
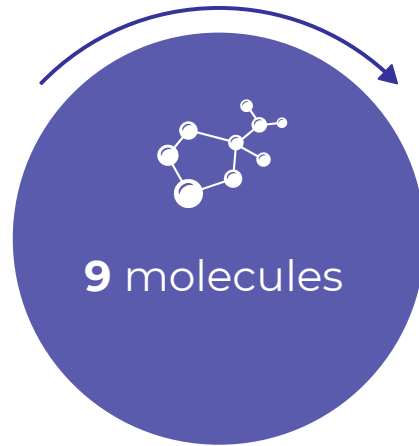
⁴ Eligible New Patients Per Annum multiplied by Price Per Dose

SIX PLATFORMS, WELL DIFFERENTIATED MOLECULES

One Of The Deepest Pipelines In Radiopharmaceutical Therapies



PORTFOLIO PRIORITIZATION



20+ clinical development trials

PRIORITIZATION FILTERS

Disease Area Size & Unmet Need

Market potential as Imaging or Therapeutic
(First to market or Best in class)







Clinical Trial Probability of Success
(based on preclinical & clinical scientific evidence)

Entry Barriers vs Standard Of Care
(scientific, economic, infrastructure)

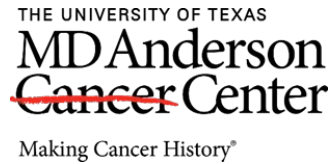
Differentiation vs Other Radiopharmaceuticals
(approved or in advanced development)

SIX PRIORITIES:
2 Imaging, 4 Therapeutic

CURRENT PORTFOLIO PRIORITIES

RAD CODE	MOLECULE	INDICATION	DX / TX	ISOTOPE	PRECLINICAL	PHASE I	PHASE II	PHASE III	NOTES
					IMAGING				
RAD 101	pivalate	Brain Mets	Dx	F18					Positive Phase II readout Oct 2022
RAD 301	Integrin $\alpha V\beta 6$	Pancreatic	Dx	Ga68					Phase I planned Q4 2022. Clinical data already available in 88 pts
					THERAPEUTIC				
RAD204	Sd mAb PDL1	NSCLC	Tx	Lu177					Phase I planned Q1 2023 Successful phase I imaging trial completed
RAD 402	PSA-mAb	Prostate	Tx	Ac225					Phase I planned Q1 2023 extensive pre-clinical data
RAD 202	Sd mAb HER2	Breast/Gastric	Tx	Lu177					Phase I planned Q2 2023 Successful phase I imaging trial completed
RAD 502	Dunp19	Osteosarcoma	Tx	Lu177					Phase I planned Q3 2023 Orphan Drug Designation & RPDD granted by FDA

MD ANDERSON & RAD JOINT VENTURE FUNDED IN SEPT 2022



49%

RADIOPHARM
VENTURES LLC

51%



Mandate: Develop novel radiopharmaceutical therapies Preclinical and Phase I



Management Team, Regulatory Strategy, Clinical Development



Intellectual Property 4 Molecules, R&D, Preclinical, Manufacturing

Radiopharm Ventures Pipeline

4 Preclinical Radiopharmaceutical Product Candidates

Lead Program RV01: Mill33B with ^{177}Lu , targeting B7H3 in colorectal cancer

SCIENTIFIC ADVISORY BOARD: two new members added



PROF ERIC ABOAGYE

Pivalate



DR SUSAN BRADY

PTPμ



DR JOHANNES NOTNI

αVβ6 Integrin



University Medicine Essen
University Hospital



DR DAVID ULMERT

DUNP 19

PSA-mAb



DR HONG HOI TING

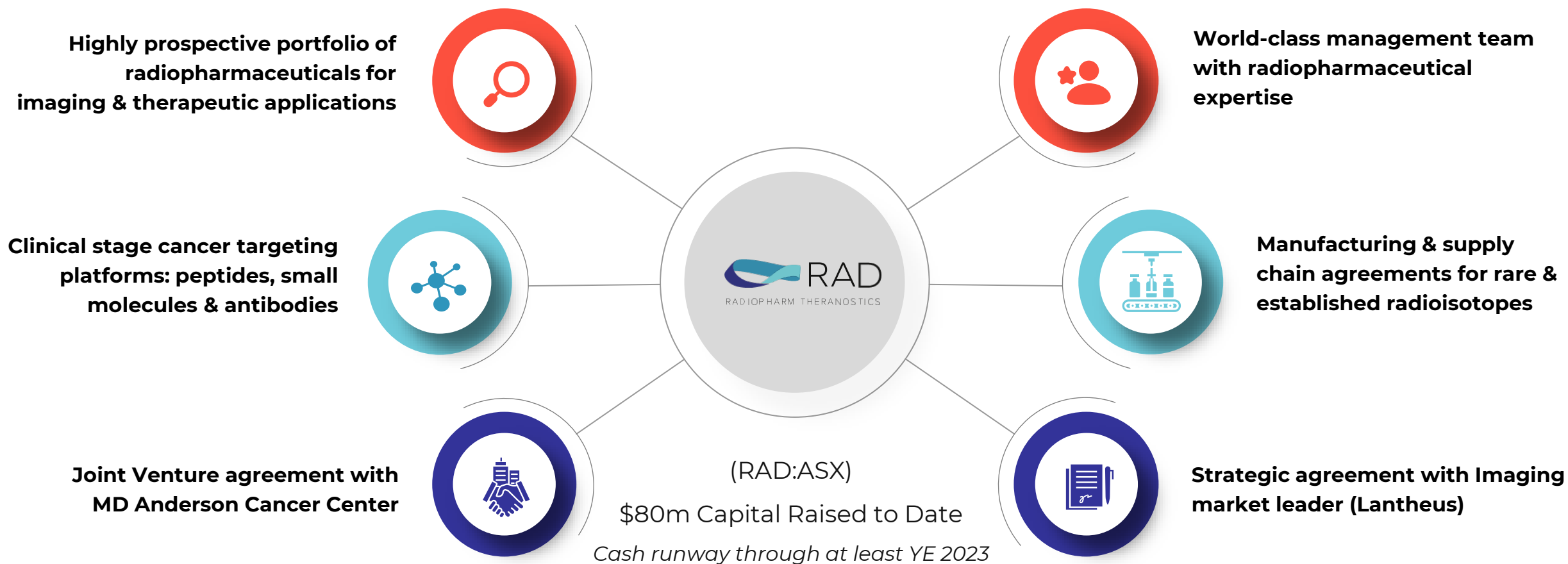
Nano-mAb



PROF SARA HURVITZ



BECOMING A RECOGNIZED LEADER IN FIGHTING CANCER THROUGH INNOVATIVE RADIOPHARMACEUTICAL THERAPIES



CONTACT US

Riccardo Canevari

CEO & MANAGING DIRECTOR

Radiopharm Theranostics Limited

T +1 862 309 0293

E rc@radiopharmtheranostic.com

W www.radiopharmtheranostics.com

Paul Hopper

Executive Chairman

Radiopharm Theranostics Limited

T +61 406 671 515

E paulhopper@lifescienceportfolio.com

W www.radiopharmtheranostics.com