ASX ANNOUNCEMENT
4 MARCH 2024

B. Riley Securities Radiopharma Investor Conference presentation

Sydney, Australia – 4 March 2024 – Radiopharm Theranostics (ASX:RAD, "Radiopharm" or the "Company"), a clinical-stage biopharmaceutical company focused on developing innovative radiopharmaceuticals for areas of high unmet medical need, is pleased to share its presentation as delivered at the B. Riley Securities Radiopharma Investor Conference held on 1 March 2024 in New York.

The event featured 15+ small-to-mid cap public and private biotech, medtech, medical services, CDMO (contract development & manufacturing organisation), and industrial companies focused on bringing life-saving radiotherapeutics and imaging agents to the market.

About Radiopharm Theranostics

Radiopharm Theranostics is a clinical stage radiotherapeutics company developing a world-class platform of innovative radiopharmaceutical products for diagnostic and therapeutic applications in areas of high unmet medical need. Radiopharm has been listed on ASX (RAD) since November 2021. The company has a pipeline of six distinct and highly differentiated platform technologies spanning peptides, small molecules and monoclonal antibodies for use in cancer, in pre-clinical and clinical stages of development from some of the world's leading universities and institutes. The pipeline has been built based on the potential to be first-to-market or best-in-class. The clinical program includes one Phase II and three Phase I trials in a variety of solid tumour cancers including breast, kidney and brain. Learn more at Radiopharmtheranostics.com.

Authorized on behalf of the Radiopharm Theranostics Board of Directors by Executive Chairman Paul Hopper.

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B. Riley Radiopharm Day – March 1st, 2024

RAD
RADIOPHARM THERANOSTICS

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

DEVELOPING A WORLD-CLASS PLATFORM OF NEXT-GENERATION RADIOPHARMACEUTICAL PRODUCTS TO FIGHT CANCER

Pipeline of Novel Candidates

- Two Imaging clinical-stage programs (one completed Phase 2a; one currently in Phase 1)
- One Therapeutic clinical-stage program, currently in Phase 1
- Platform of molecules in late-stage preclinical (6-18 months to Phase I)
- Differentiated Targeting Molecules leveraging peptide, single domain mAb, and mAb in solid tumors (no presence in areas like PSMA, SSTR2, FAPI)

In-licensing strategy and IP

- Late-stage preclinical molecules licensed from Top Universities (i.e. Imperial College of London, UCLA, MD Anderson, Technical University of Munich)
- Joint Venture with THE UNIVERSITY OF TEXAS MD Anderson Cancer Center to develop four proprietary novel technologies for radiopharmaceutical use

Deep Expertise in Radiopharmaceuticals

- All team members with previous Imaging or Therapeutic radiopharmaceutical experience
- Extensive Scientific Advisory Board of accredited multinational researchers

Public Company (RAD : ASX) created in mid 2021

- Lean organization of 10 FTEs with low resource allocation to G&A
- AUD$ 84m raised from July 2021 until today (AUD$ 50m IPO in Nov 2021);

KEY MANAGEMENT TEAM

Paul Hopper
Executive Chairman

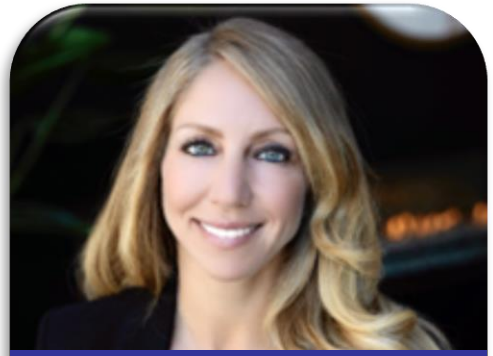
- Founder of Radiopharm Theranostics LTD.
- 25 years experience as a life-sciences entrepreneur
- Founder, Chairman, non-executive director or CEO of more than fifteen companies in the US, Australia and Asia
- Previous and current Boards include Imugene, Chimeric Therapeutics, Viralytics, Prescient Therapeutics, Polynoma and Arovella Therapeutics

Riccardo Canevari
Chief Executive Officer

- Radiopharm Theranostics CEO since September 2021
- Previously, Chief Commercial Officer of Novartis Company Advanced Accelerator Applications S.A.
- Lead for Lutathera in-market growth strategy & Pluvicto launch strategy
- Senior Vice President & Global Head, Breast Cancer Franchise, for Novartis Oncology since 2017

Vittorio Puppo
Chief Operating Officer

- Has served as Chief Operating Officer since June 2022.
- Previously, Chief Marketing Officer at Bracco Imaging, a world leader in diagnostics
- Managed businesses in Europe and Asia for Accuray, Covidien, Mallinckrodt and Amersham
- Board member of Life Sciences Capital



Dr. Sherin Al-Safadi
VP, Medical Affairs

- Served in the role since Aug 2023.
- Previously, VP Medical Affairs at Point Biopharma
- Lead Strategic & Tactical planning radiopharmaceutical Phase III programs
- Global Director, Medical Affairs at Bayer

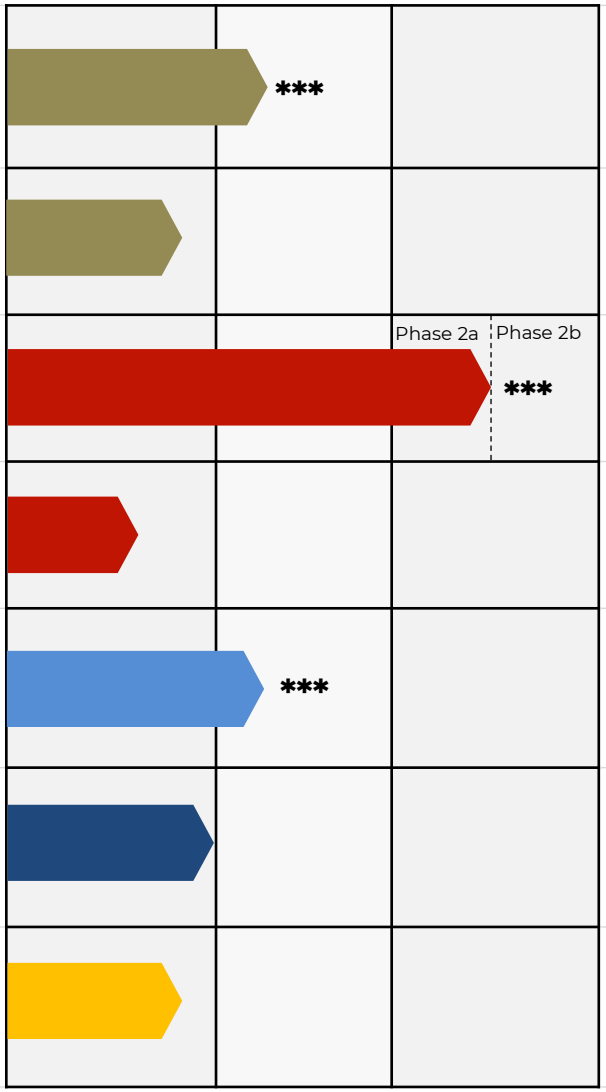
Vimal Patel
VP, CMC

- Served in the role since September 2023
- Previously Vice President, Head of CMC and Supply Chain at Orum Therapeutics
- Led the successful manufacture of two ADCs and contributed to filing an IND leading to a Phase-I trial.
- Director of Process Sciences and Manufacturing at Actinium Pharmaceuticals

COMPANY PIPELINE (WITH CLINICAL STAGE PRIORITIES ***)

RADIOPHARM THERANOSTICS

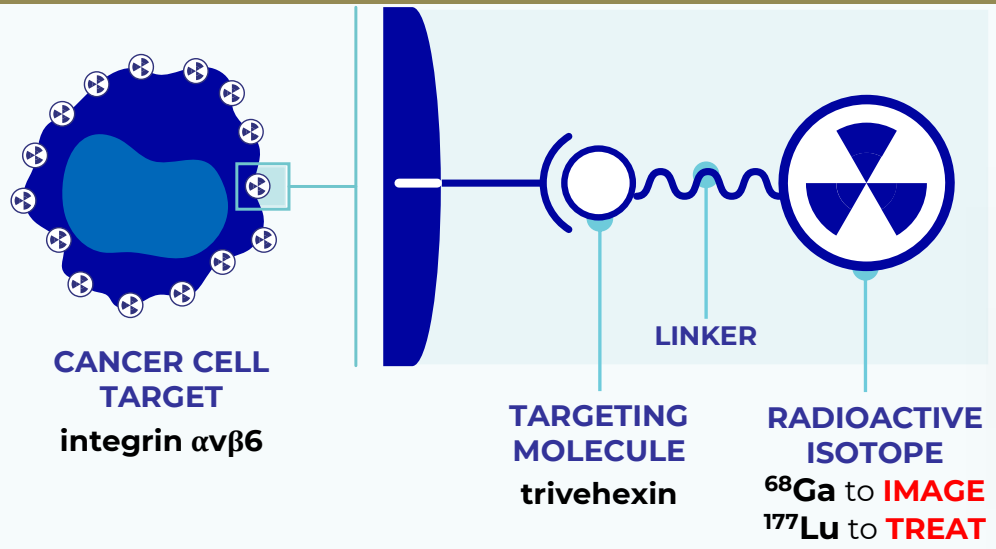
RAD CODE	TARGET & MOLECULE	INDICATION	Dx/Tx	ISOTOPE	NOTES
RAD301	Integrin αVβ6 Peptide	PANCREATIC CANCER	Imaging	Ga68	FDA Orphan Drug Designation Phase 1* enrolling in the USA 1st participant dosed Feb 29th, 2024
RAD302			Therapy	Lu177	Preclinical package to be completed by 2024
RAD101	Fatty Acid Oxidation Small Molecule	BRAIN METS	Imaging	F18	IND preparation for Phase 2b multicenter trial in USA in 30 patients
RAD102			Therapy	I123	Candidate selection is ongoing at Imperial College of London
RAD204	PDL-1 Nanobody	NON-SMALL CELL LUNG CANCER	Therapy	Lu177	Phase 1** enrolling in Australia
RAD202	HER 2 Nanobody	BREAST / GASTRIC CANCER	Therapy	Lu177	Preclinical & CMC completed Phase 1 trial planned in late 2024
RV01	B7H3 mAb	PROSTATE, LIVER PANCREAS, COLON	Therapy	Lu177	From Joint Ventures MD Anderson-RAD CMC production ongoing Preclinical package to be completed in late 2024

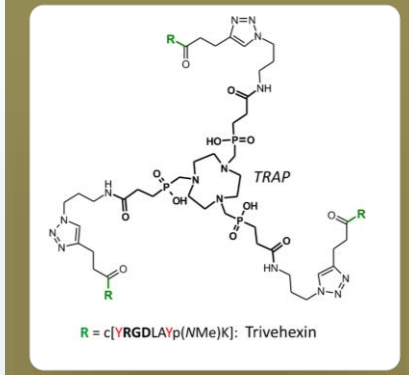


RADIOPHARM VENTURES

* NCT05799274 **ACTRN12623000959673

Integrin αVβ6 : Imaging and Therapy for Pancreatic Cancer





TRIVEHEXIN

RGD peptide (arginylglycylaspartic acid)

Integrin αvβ6 receptor antagonist

- Marker for tumour invasion and metastatic growth
- Expression correlates with decreased survival in numerous carcinomas

IMAGING WITH PET TECHNOLOGY

- High unmet need in detecting and monitoring pancreatic cancer metastasis
- Orphan Drug Designation granted (5/2023)
- 66 patients already dosed under compassionate use in Germany
- 33 patients already doses in IIT, showing superiority to FDG

THERAPY FOR αvβ6 INTEGRIN EXPRESSING TUMORS

- Pancreatic cancer is the first targeted indication
- Multi-indication potential beyond PDAC (Head & Neck, NSCLC, TNBC, Colorectal)

RAD301 Clinical Development: Investigator Initiated Trial at Fortis Medical Center, supported by TRIMT

68Ga-trivehexin PET/CT Imaging vs F18-FDG

TRIAL ANALYSED:

- Selective detection of αvβ6 integrin-expressing tumour lesions in patients with PDAC & HNSCC
- 33 patients administered RAD301

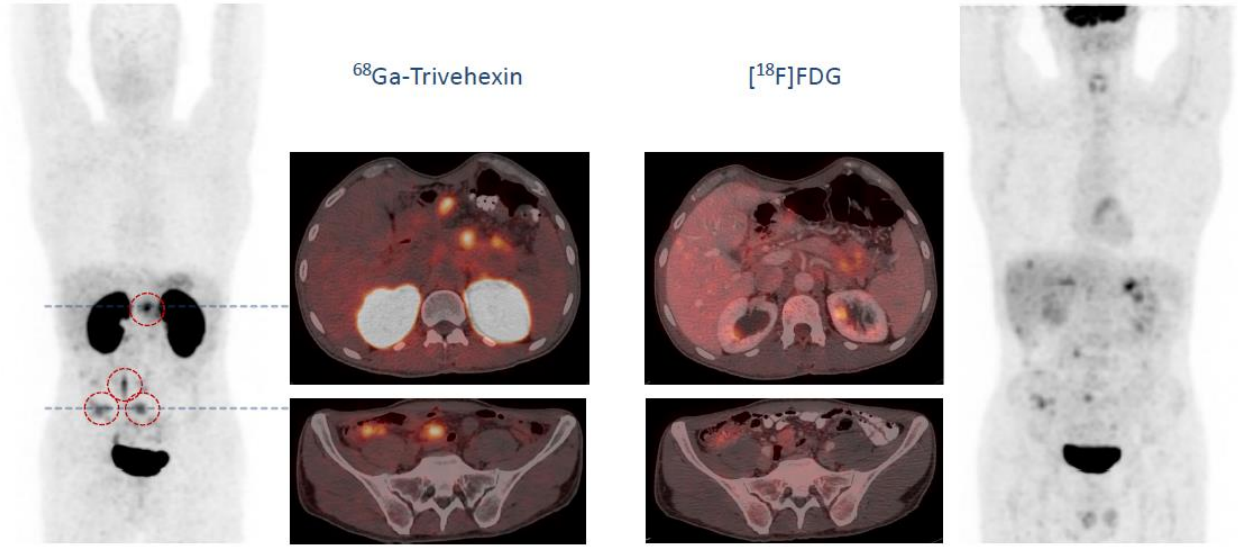
Data presented at World Theragnostic Congress 2022 (Wiesbaden, Germany) & follow up presented at EANM 9/2023 (Vienna)

Results Indicate that RAD301 shows incremental value over F18-FDG in PDAC & HNSCC

- Favorable tumour-to-background contrast vs F18-FDG
- Sharper images and negligible uptake in the surrounding normal tissue

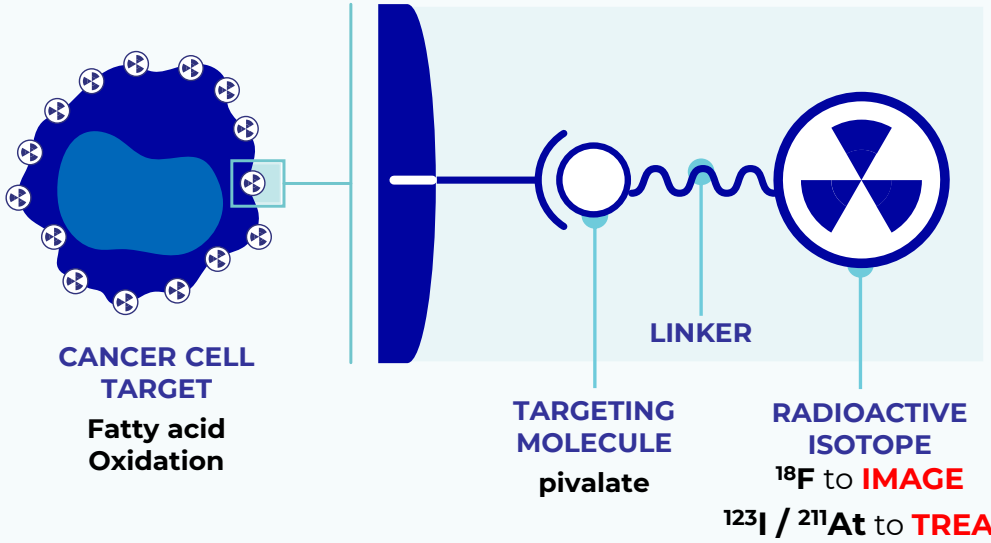
68Ga-trivehexin PDAC imaging shows superior resolution vs F18-FDG

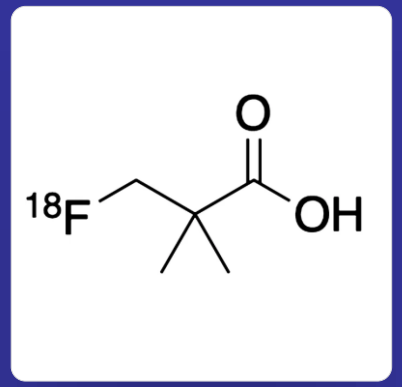
^{68}Ga-Trivehexin *vs.* [^{18}F]FDG—Metastatic PDAC in the Pancreatic Tail



Images courtesy of Dr. Ishita Sen, Fortis Medical, New Delhi, India

Fatty Acid Oxidation: Imaging and Therapy for Brain Metastases





F18-PIVALATE

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

IMAGING with PET TECHNOLOGY

- 300,000 new patients every year in USA only
- MRI current standard of care, but has limitations in patients post-surgery or post-stereotactic radiation surgery (pseudo-progression)

THERAPY

- R&D stage for candidate selection at Imperial College of London
- Isotope selection based on chemical stability
- Potential use beyond Brain Mets (i.e Gliomas)

Pivalate Delivers Positive Phase II Data in Brain Metastasis Trial

RAD101 Phase IIa Clinical Trial: F18-pivalate PET/MRI Imaging

Patients with one or more cerebral metastases from primary tumours of differentorigin; breast, lung, melanoma & colorectal cancer

TRIAL ANALYSED:

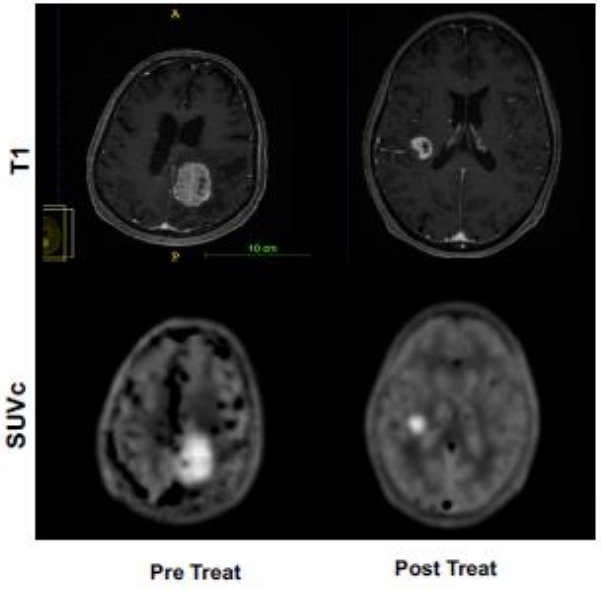
- Selective F18-pivalate uptake in cerebral metastases
- Impact of Stereotactic Radiosurgery (SRS) on F18-pivalate uptake at early time points (4-8 weeks)
- 2 cohorts of patients: 11 treatment naïve & 6 SRS treated (4-8 weeks post treatment)

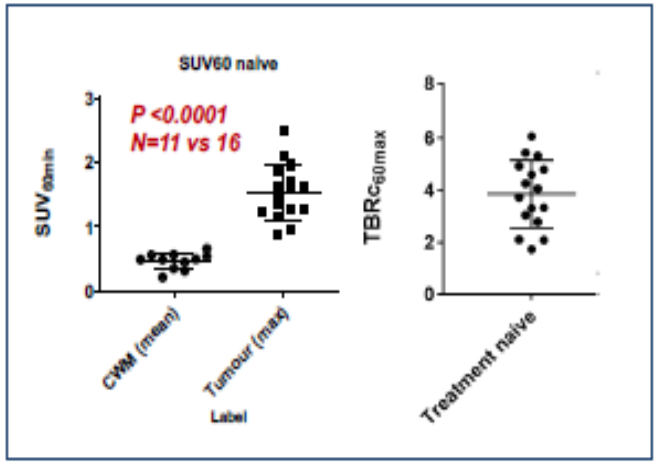
RESULTS

F18-pivalate PET showed high uptake independent of origin of primary tumour

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

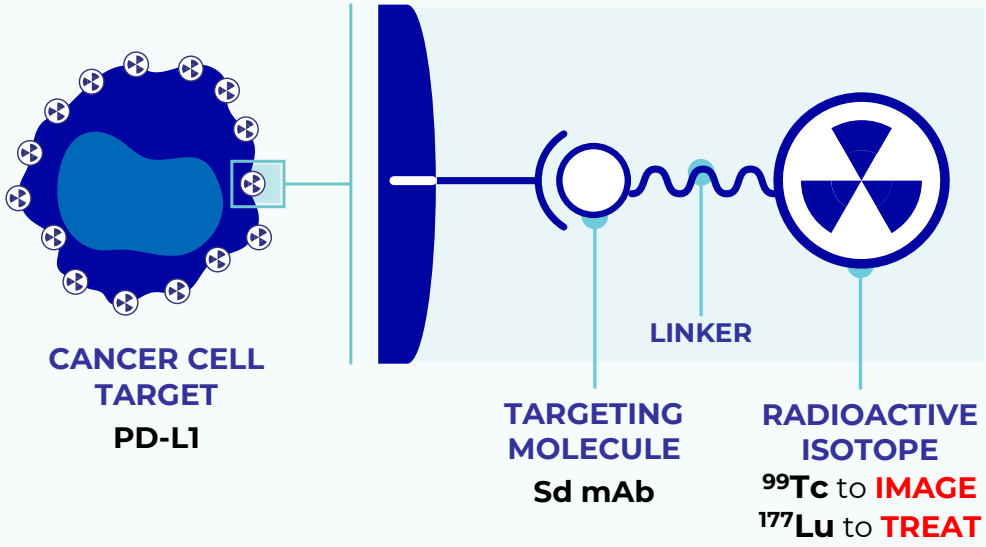
- Patients without previous external beam radiation showed higher tumour uptake of RAD 101
- Previously treated patients show trend towards lower RAD 101 uptake

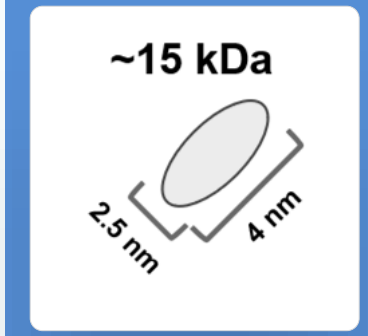




The RAD 101 Phase II results were presented at a Joint Meeting of the European Organisation for Research and Treatment of Cancer (EORTC), the (USA) National Cancer Institute (NCI), and the America Association for Cancer Research (AACR) in Barcelona, Spain, 26-28 Oct 2022

PD-L1 NANOBODY: COMBO-THERAPY FOR LUNG CANCER





PD-L1 NANOMAB

Single domain monoclonal antibody (Sd mAb)

PD-L1 Immune Checkpoint Protein

- Overexpression mediates evasion of immune responses by cancer cells
- Blockade by antibodies leads to tumour regression

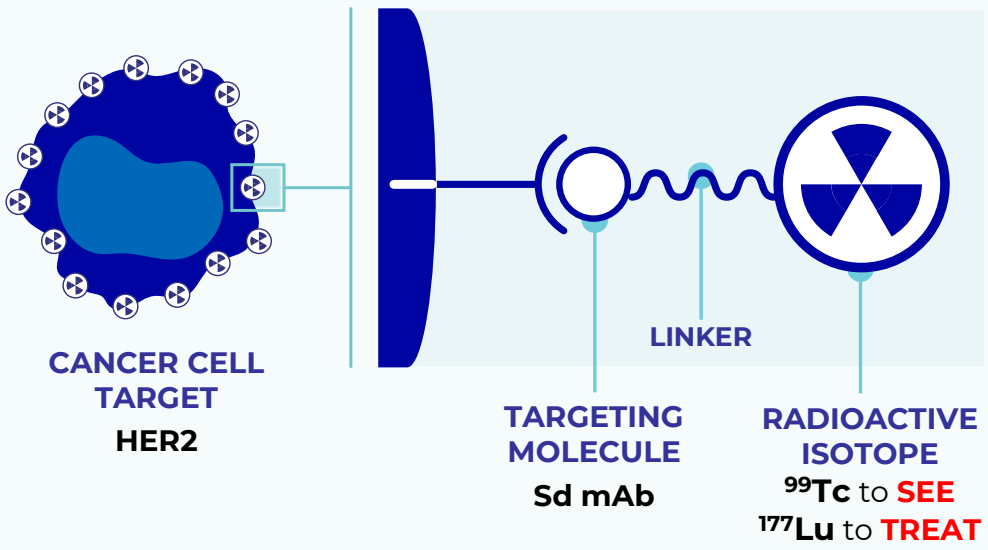
IMAGING WITH SPECT TECHNOLOGIES

- Phase II imaging ongoing in non-small cell lung cancer
- Lantheus licensed Worldwide Rights (ex-China)
- RAD owns China rights
- RAD-LANTHEUS agreement signed for data sharing

THERAPY

- 200,000 new patients with NSCLC every year in USA
- ~70% of patients refractory to Check Point Inhibitors therapies
- Strong potential as a preferred combination partner with Checkpoint Inhibitors (abscopal effect + immunostimulation + “cold to hot” to rechallenge with ICI)

HER 2 NANOBODY: POST-ADC THERAPY



HER 2 NANOMAB

Single domain monoclonal antibody (Sd mAb)

HER 2 pathway proven in Oncology

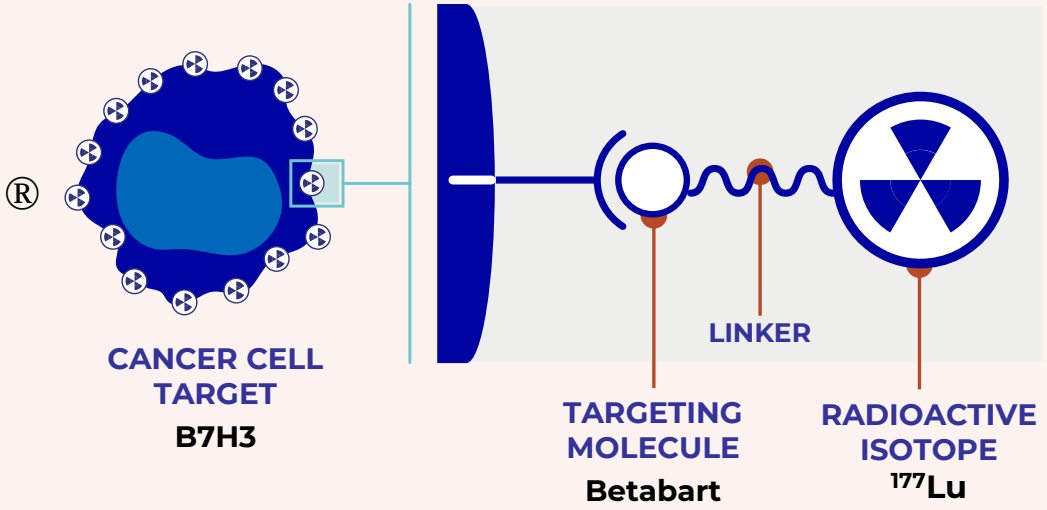
- Overexpression in Breast Cancer and Gastroesophageal cancers

BREAST & GASTRIC HER2+ THERAPY FOR PATIENTS REFRACTORY to ADC TRASTUZUMAB DERUXTECAN (Enhertu)

	Expected Peak Sales	% addressable market for next-line therapy	Total addressable market	Radiopharma products & Companies	# products
Radiopharmaceuticals opportunity post ADC					
ENHERTU	**~$12B**	**~30%**	**Post-Enhertu > $4B**	**Lu177-HER2 (RAD 202)** RAD RADIOPHARM THERANOSTICS I131-HER2 (Precirix)	2

FROM JOINT VENTURE WITH MD ANDERSON:

FIRST AND ONLY B7-H3 RADIOPHARMACEUTICAL IN DEVELOPMENT

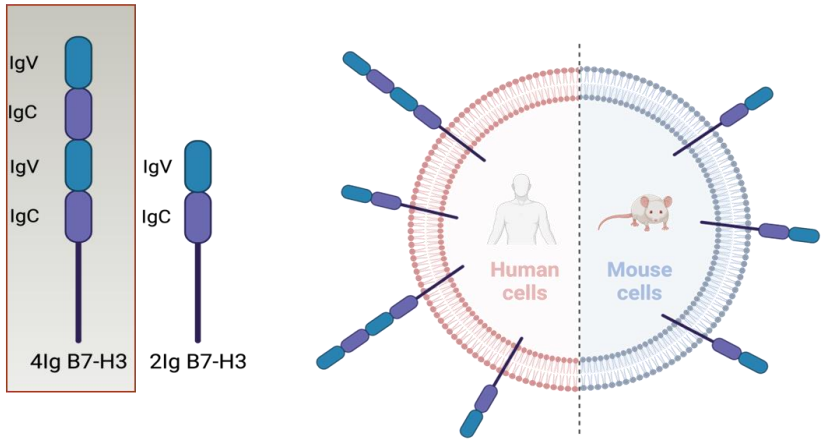


BETABART®

Isoform-Selective Targeting of 4Ig-B7-H3 for PET Imaging and Beta-Radioligand Therapy

THERAPY

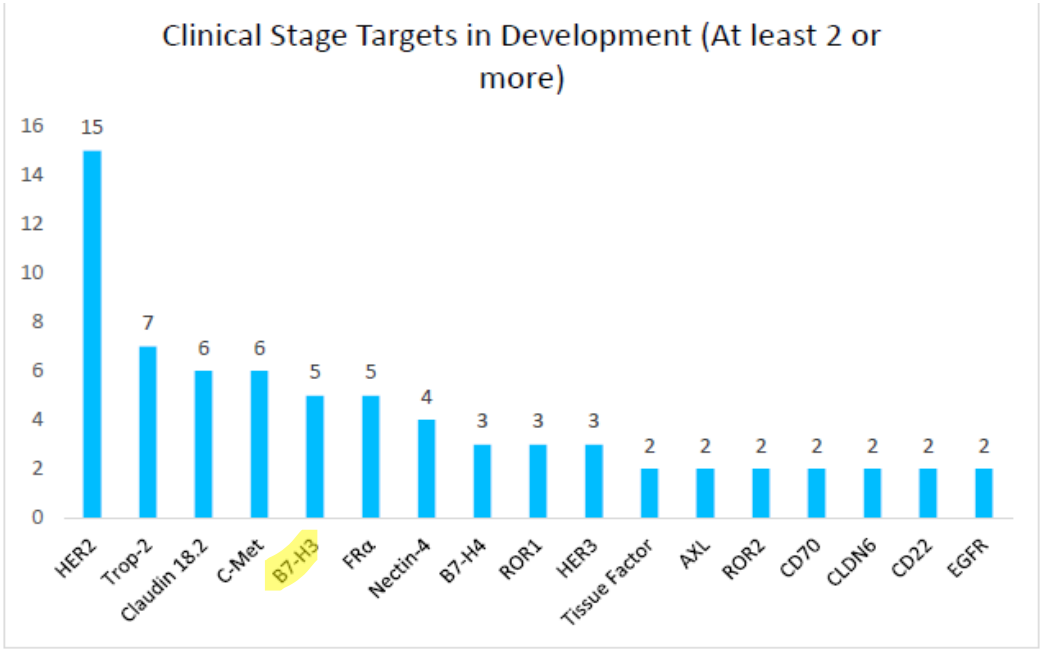
- Multi-indication potential in B7H3+ solid tumors (Prostate, Pancreatic, Hepatocellular Carcinoma, Colorectal, Breast, Ovarian, …)
- Phase I planned in early 2025



- A soluble 2Ig-B7-H3 isoform circulating in the blood is a potential pseudo-target decoy (sink) not widely appreciated as a confounding factor in therapy.

FIVE B7H3 ANTIBODY DRUG CONJUGATES IN DEVELOPMENT

PHASE 2 READOUT WITH B7H3 ADC IN PROSTATE CANCER EXPECTED SOON



Source: BioMedTracker; Leerink Partners Research

MACROGENICS

Ph2 TAMARAK B7H3 study in mCRPC

Read-out around ASCO 2024

PROSTATE CANCER: FIRST POTENTIAL VALIDATION FOR B7H3:

Prostate Cancer management needs for new pathways/targets to improve clinical outcomes, quality of life, and reduce off-tissue toxicities

Current standard with AT, PARP, PSMA Radioligand

ANDROGEN THERAPIES / PARP

Abiraterone
Apalutamide
Darolutamide
Enzalutamide
Nilutamide
Olaparib
Rucaparib

PSMA

Lu 177

PLUVICTO — NOVARTIS
PNT 2002 — LANTHEUS
PSMA I&T — CURIUM

Pb 212

ADVC0011 — AdvanCell
AB001 — ARTBIO

Ac 225

FPI 225 — Fusion
PSMA 617 — NOVARTIS
PSMA R2 — NOVARTIS
Pelgi — BAYER
Trillium — BAYER
Conv01 — ENERGENT THERAPEUTICS
Alpha01 — alpha 9 THERAPEUTICS

Cu 67

bisPSMA — CLARITY PHARMACEUTICALS

At 211

PSMA — z-alpha

NEW Mechanism of Actions

B7-H3

MACROGENICS

Most advanced B7H3 ADC in development

RAD RADIOPHARM THERANOSTICS — RADIOPHARM VENTURES

First and only B7-H3 radiopharmaceutical in development

CD46 — *ADC mAb* — FORTIS THERAPEUTICS

STEAP1 — *T-cell engager* — AMGEN

THANK YOU

RAD

RADIOPHARM THERANOSTICS