PERSPECTIVE THERAPEUTICS

Corporate Presentation

May 2023

NYSE: CATX

Legal Disclaimers

Statements in this presentation about Perspective Therapeutics, Inc.'s (the "Company") future expectations, including: the functionality, capabilities, and benefits of the Company's therapies including its targeted alpha-particle radiotherapy; whether favorable results of the initial trials will continue and whether those results can be commercialized for wider use; whether it maintains its contract with the Department of Energy ("DOE") for the therapeutic isotope supply of "Th-228"; whether the Fast Track FDA approvals are maintained; expectations about the Company's addressable markets; the potential size of the commercial market for the Company's treatment programs; the Company's expectations, beliefs, intentions, and strategies regarding the future; and all other statements in this presentation, other than historical facts, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 ("PSLRA"). This statement is included for the express purpose of availing the Company of the protections of the safe harbor provisions of the PSLRA. It is important to note that actual results and ultimate corporate actions could differ materially from those in such forward-looking statements based on such factors as whether additional studies are released that reinforce the results of the studies discussed in this presentation; whether the anticipated benefits of the Company's therapies including its targeted alpha-particle radiotherapy are realized; the ability to raise ongoing capital to fund added costs of research and development; the ability of the Company to manage growth and successfully integrate its businesses; whether the Company can maintain its key employees; training and use of the Company's products; market acceptance and recognition of the Company's products; the Company's ability to enforce its intellectual property rights; whether it can maintain and not default on its therapeutic isotope supply agreement with the DOE; successful completion of future research and development activities; whether we, our distributors, and our customers will successfully obtain and maintain all required regulatory approvals and licenses to market, sell, and use our products in their various forms; the procedures and regulatory requirements mandated by the FDA for additional trials, Phase I and II approvals, Fast Track approvals, and 510(k) approval and reimbursement codes; changes in applicable laws and regulations; and other risks detailed from time to time in the Company's reports filed with the SEC.

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PERSPECTIVE THERAPEUTICS

The combined focus advances precision cancer treatments using target delivery of radiation and imaging technologies; *treating cancer from the inside out*

Best-in class development team

- IP and innovation in drug development
- Proprietary peptide-chelator based targeting platform
- In-house ^{212}Pb isotope supply
- 2 Clinical stage programs and robust pipeline

>$18m in competitive NIH awards

- Science rigorously validated by independent peers

February 6, 2023

Completed merger with Isoray Medical

isoray + VIEWPOINT molecular targeting

- Commercially available Cs-131 for LDR brachytherapy
- Multi-indications for brachytherapy & Targeted Alpha Therapies
- Stronger balance sheet

Management Team:
Deep Radiotherapy and Development Experience

Thijs Spoor

Chief Executive Officer

20+ years of expertise in biotechnology companies; public and private companies; oncology and nuclear pharmacy

Jonathan Hunt

Chief Financial Officer

20+ years of expertise in financial controls and public accounting for large and small companies across multiple industries

Markus Puhlmann MD MBA

Chief Medical Officer

20+ years of oncology drug development across all phases, experience coordinating multiple regulatory filings

Frances Johnson MD

Chief Innovation Officer

20+ years in clinical trials execution, managing academic research programs, and start-up of CareDx, Inc.

Michael Schultz PHD

Chief Science Officer

20+ years industry and research experience in radiopharmaceuticals; inventor of Viewpoint Products

Amos Hedt

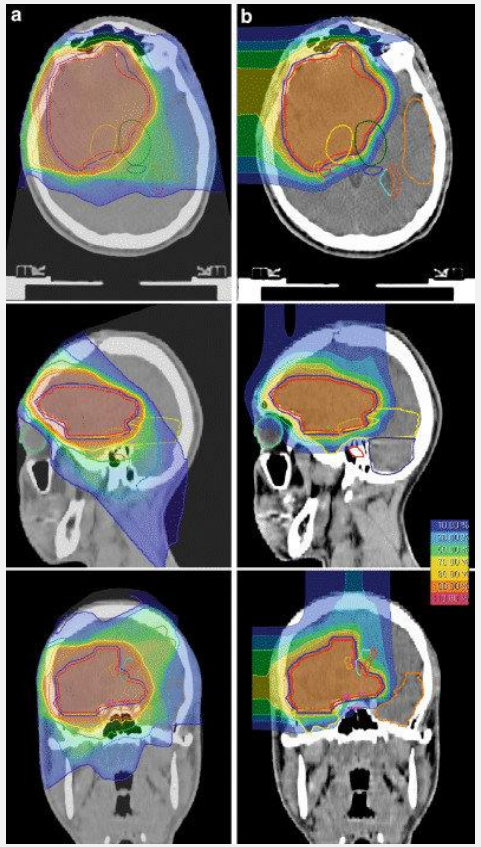
Chief Business Strategy Officer

20+ years of expertise in early-stage pharmaceutical and biotech drug development; 10+ years in radiopharmaceuticals

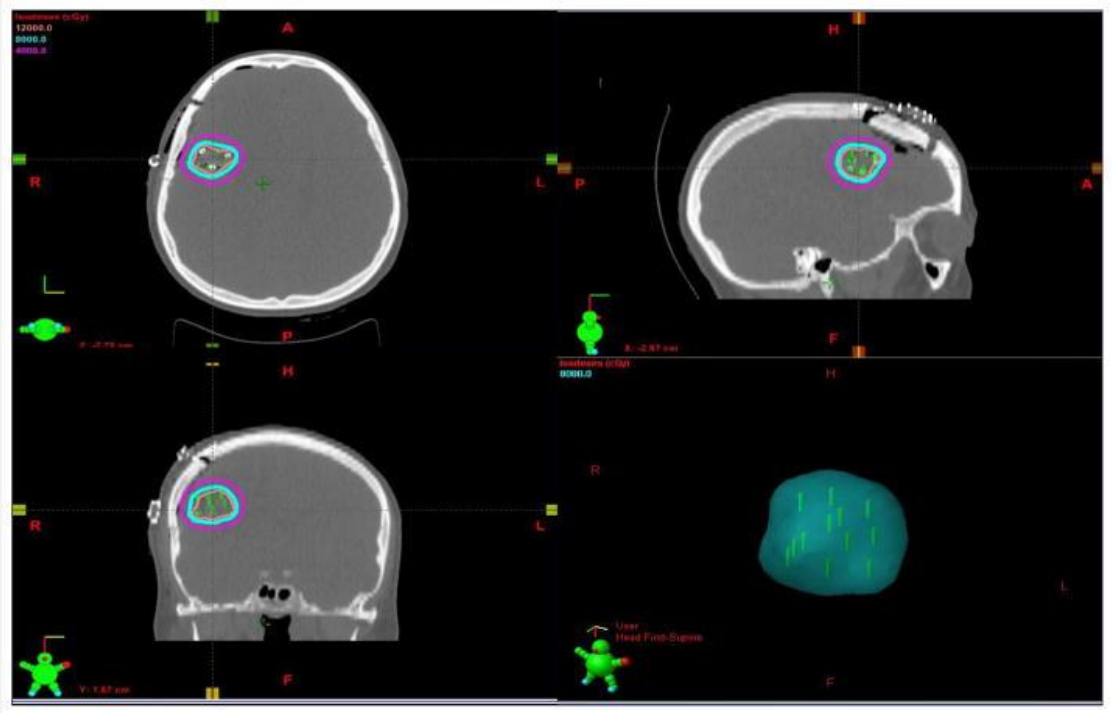
Targeting Cancer Cells from the inside out:

External Beam Radiation irradiates Healthy Tissue Along with Tumors

Absorbed dose 4 weeks post External Beam treatment



Similar tumor dose post Cesium-131 implant



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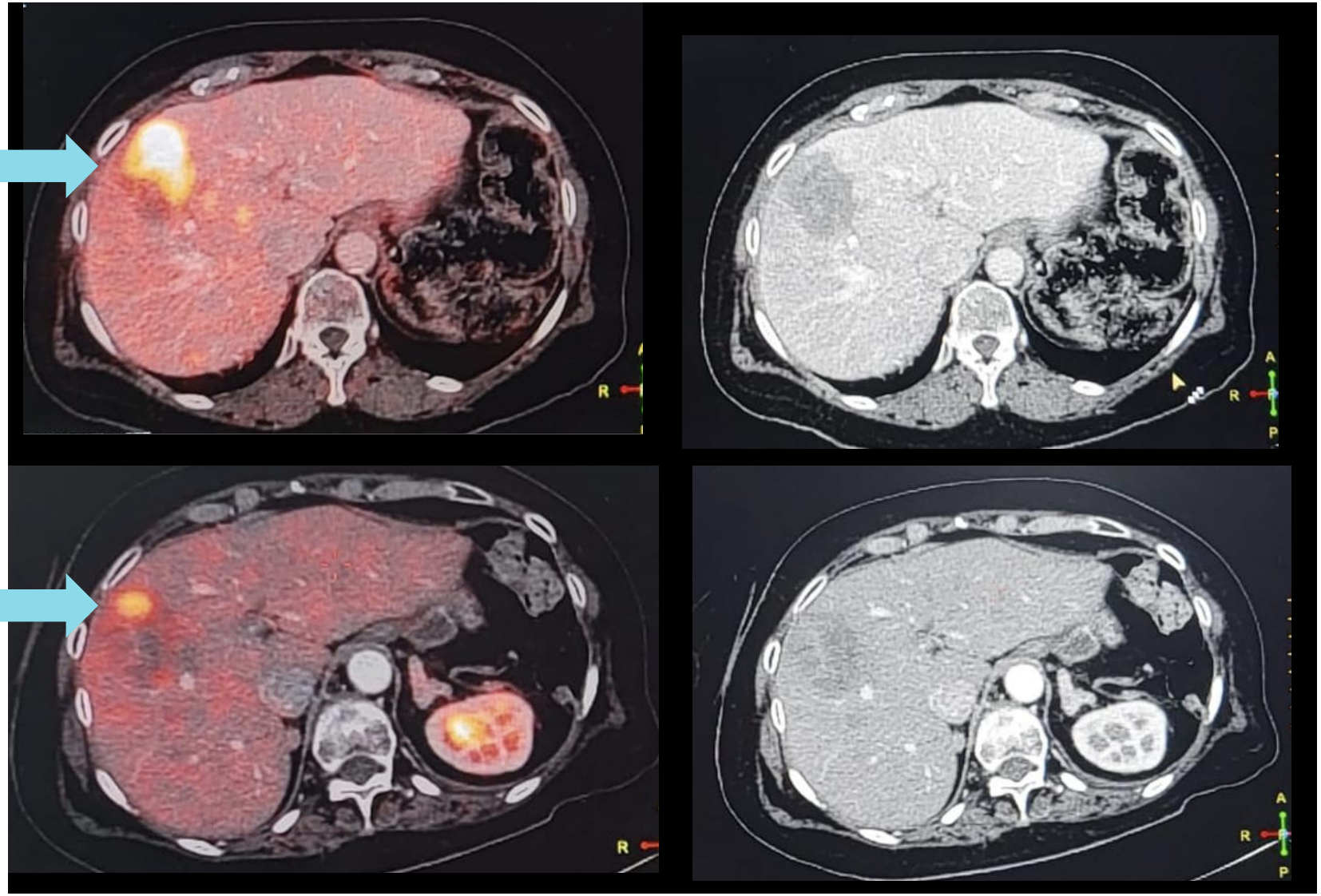
1st Patient with [^{212}Pb]VMT-α-NET – significant tumor response after a single dose

Tumor Before Treatment

Tumor After 1 Dose



Dr. Ishita B Sen
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As presented Prasad V., PET RTRC Workshop, WashU, USA 2023

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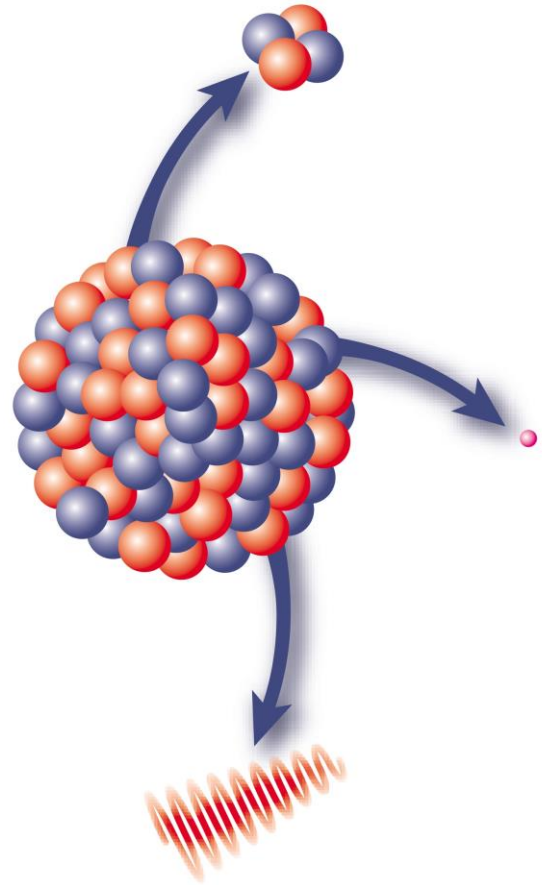
Radiopharmaceuticals Are a New Pillar of Oncology Treatment with Pan-Cancer Opportunities

Molecularly targeted radiation	Radiotherapy is a proven pillar of cancer treatment but lacks precision. By precisely delivering radiation directly to cancer cells with radioligands, the power of radiotherapy can be realized while reducing the off-target effects.
Optimized patient selection	Molecular imaging companion diagnostics enable visualization of the therapeutic target to optimize the selection of patients who may best respond to therapy.
Monotherapy activity and combination synergies	Many opportunities exist to develop radiopharmaceuticals as monotherapies and additional options exist to extend the therapeutic uses by combining with other precision treatments, such as DNA damage response and immune checkpoint inhibitors.
Outpatient friendly	Modern medical isotopes enable radiopharmaceuticals to be administered outside of hospitals, making them easily accessible globally - over 1,400 outpatient locations in the U.S alone.
Limited competitors + deep moat preventing new entrants = unique business opportunity	Radiopharmaceutical theranostic product development is more highly specialized and technical than for standard medicines, requiring deep knowledge and expertise across multiple disciplines.

α-Particles Have Superior Tumor Killing Properties vs. β-Particles

More Powerful Effects Than Approved β Therapy	Higher atomic mass Lethal double-stranded DNA breaks DNA repair mechanisms overwhelmed
Precision Delivery Provides Targeted Cell Destruction	Deposit energy over 3-5 cell diameters vs. beta particles (up to 200 cells)
Anti-Tumor Immune Response [1]	Evidence for antitumor response alone or in combination with immunotherapies Consistent with “Abscopal effect” observed with external beam radiation therapy



α-particles are >7,000-fold greater in atomic mass

1: Li et al., Cancers, Jul 22;13(15), 2021

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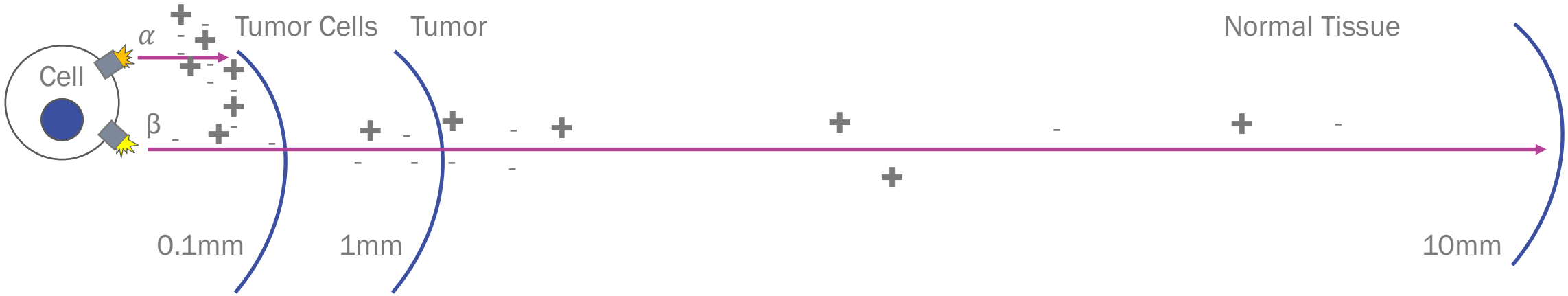
Targeted α-Particle Radiotherapy

A New Class of Oncology Therapeutics

Lead-212 (^{212}Pb): The Optimal Therapeutic Isotope

Superior* Therapeutic Energy Expected to Improve Outcome with Better Safety

	Iodine (^{131}I)	Lutetium (^{177}Lu)	Actinium (^{225}Ac)	Lead (^{212}Pb)	Implication*
Emission Profile	Beta	Beta	Alpha	Alpha	Potent
Half Life	8 days	6.7 days	10 days	0.46 days	Rapid Clearance
Off Target Toxicity Risk	Very high	Low	High	Low	Best
Supply	High	Low	Low	High	Abundant
Cost of Production	Low	High	High	Low	High margin



*Source: Management estimates and assumptions based on current literature and known physical constants

Peptides emerging as ideal ligands for radiopharmaceutical therapy

	Peptides		mAbs	
Selection	Library or Native ligand	+++	Process is well known	+++
Affinity	High (pM/nM)	+++	High (pM/nM)	+++
Selectivity	High	+++	High	+++
Tumor specificity	Fast ($T_{1/2}$ hours)	+++	Slow ($T_{1/2}$ days)	+ kidney, liver, other
Clearance (renal)	Fast ($T_{1/2}$ hours)	+++	Clearance: Slow ($T_{1/2}$ days)	+
Tumor permeability	Excellent	+++	Questionable	+ MW/size
Stability	Excellent	+++	Questionable	+ (temp., pH, etc.)
Manufacturing	Purely synthetic	+++	Biologic	+

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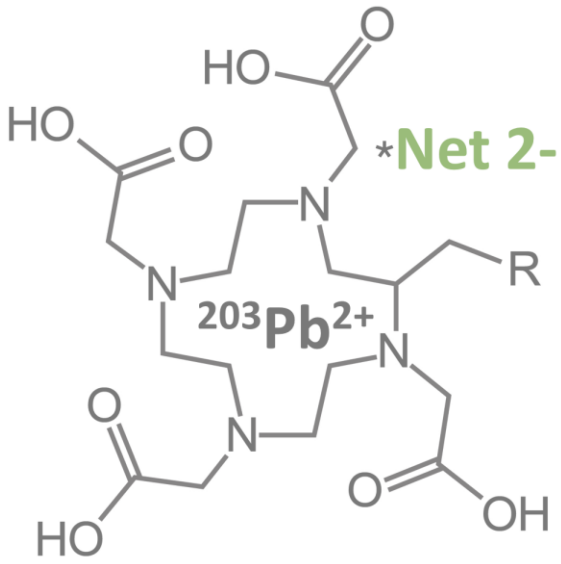
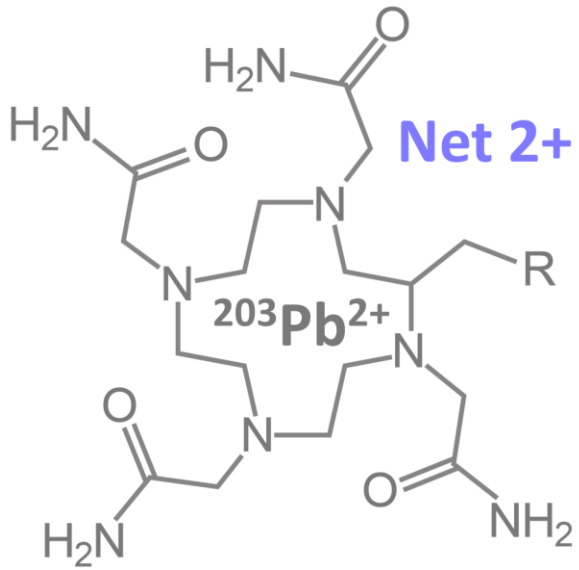
Finding an optimized $^{212/203}$Pb Chelator

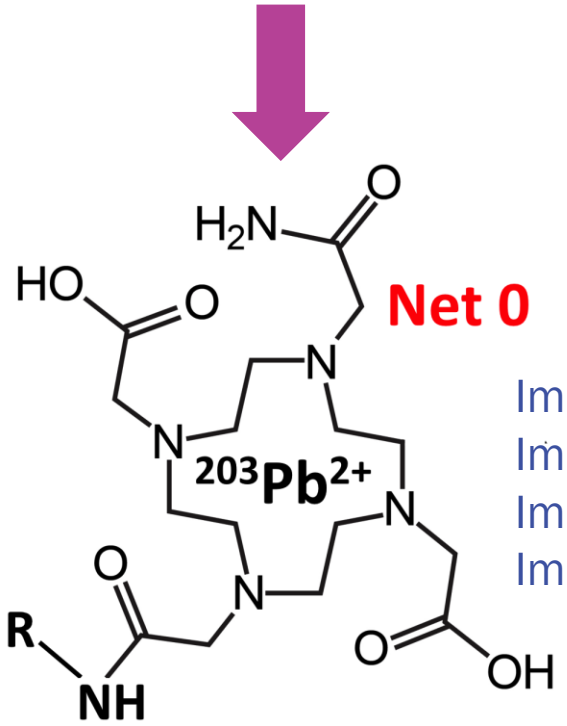
Available chelators leave formal charge at chelator/radiometal coupling (positive or negative)



DOTA



TCMC



PSC

Improve radiolabeling
Improve renal clearance
Improve receptor binding
Improve internalization

Commercially Available

Proprietary Perspective IP

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Lead (Pb): The Ideal Theranostic Isotope

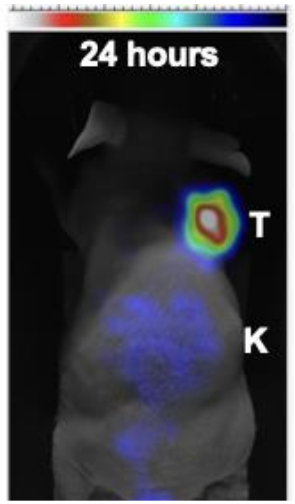
Ideal Theranostic

- Ideal agreement between imaging and therapeutic compounds
- Readily available isotope
- Ideal chelator
- Rapid clearance from blood
- High tumor retention @24 hours
- Short t-½ gives rapid effect while minimizing environmental impact
- No unsafe daughter isotopes

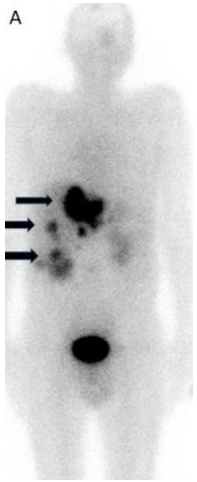
^{212}Pb & Viewpoint Chelator

- ^{203}Pb and ^{212}Pb matched pair
- Generator produced
- PSC carries 0 net charge
- Peptide targeting
- High binding
- Low hospital and patient impact for radiation safety
- Decays to cold Pb

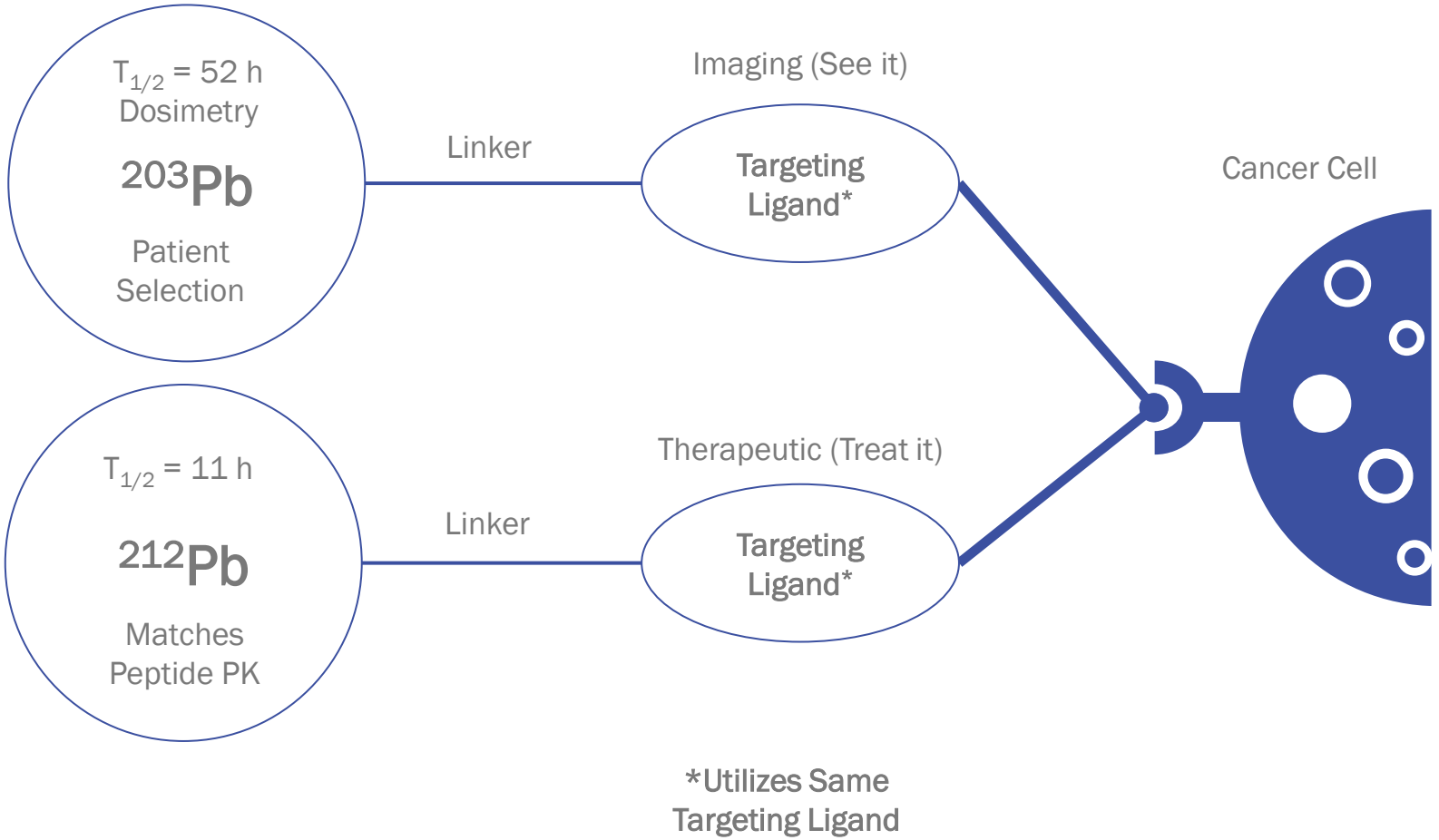
Theranostics: Understand Which Patients Will Respond to Therapy



^{203}Pb useful in early radiopharmaceutical development as an elementally identical imaging surrogate



^{203}Pb useful in early clinical development as a pharmacologically inert agent to establish ^{212}Pb agent PK



*Utilizes Same Targeting Ligand

Thakral *et al.* (Sen, Schultz), Ind. J. Nucl Med., 2023 (In Press)

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Discovery Platform Gives Broad Proprietary Pipeline

Program	Indication	Discovery	Lead Optimization	Development Candidate	Clinical Imaging, IND enabling	Clinical Trials (Phase 1-3)
VMT-α-NET	Neuroendocrine					
	Pheochromocytomas, paragangliomas					
	Small cell lung cancer					
VMT-01	Melanoma *(MC1R)*					
VMT-02 *(PET agent)*	Melanoma					
Program A *(Novel peptide)*	Multiple solid tumors					
Program B *(Novel peptide)*	Prostate					
Program C *(Novel small molecule)*	Prostate					
Program D *(Novel peptide)*	Breast cancer					
Program E *(Novel Small Molecule)*	Melanoma					
Other programs *(Peptides)*	Multiple Solid Tumors					

Neuroendocrine Tumors: VMT-alpha-NET

Using the somatostatin receptor to target rare and neuroendocrine-type cancers

VMT-α-NET

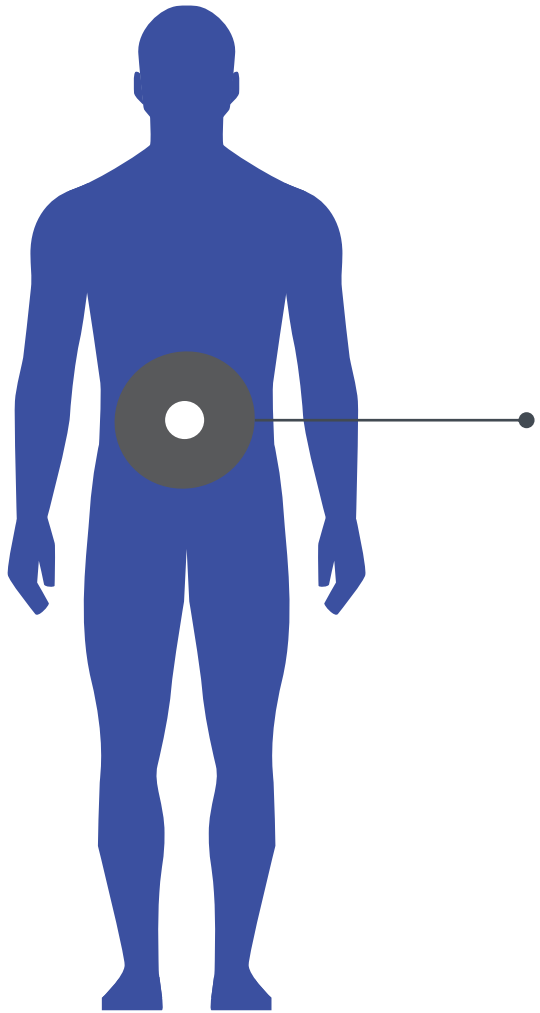
Currently in Phase 1/2a studies for the imaging and treatment of neuroendocrine tumors

Key Facts

- Targeting somatostatin receptor type 2 (SSTR2)
- Initiated first-in-human imaging (2021) & therapy (2022) under compassionate use
- US Phase I imaging study enrolling at the University of Iowa. Therapeutic IND open.
- Received Fast Track Designation October 2022
  Opportunity for Orphan Drug and Rare Pediatric Disease Designations

Gastroenteropancreatic Neuroendocrine Tumors (GEP-NETs)

Malignancies of neuroendocrine cells, which are specialized cells that secrete hormones and other bioactive substances which are found throughout the body



Often grows in the pancreas or other areas of the gut, such as the stomach, small intestine, rectum, colon or appendix

Significant unmet need with a $5 billion market opportunity[1]

~12K new diagnoses annually[2]

~175,000 people are living with this diagnosis[2]

Treatment depends on the type of tumor. Some approaches may include surgery, radiation, and chemotherapy

1: Combined 2019 sales for Affinitor ($1.5B), Lutathera ($400M), Sandostatin ($1.6B), Sutent ($1B), Somatuline ($700M) and AZEDRA ($2M); 2: cancer.net

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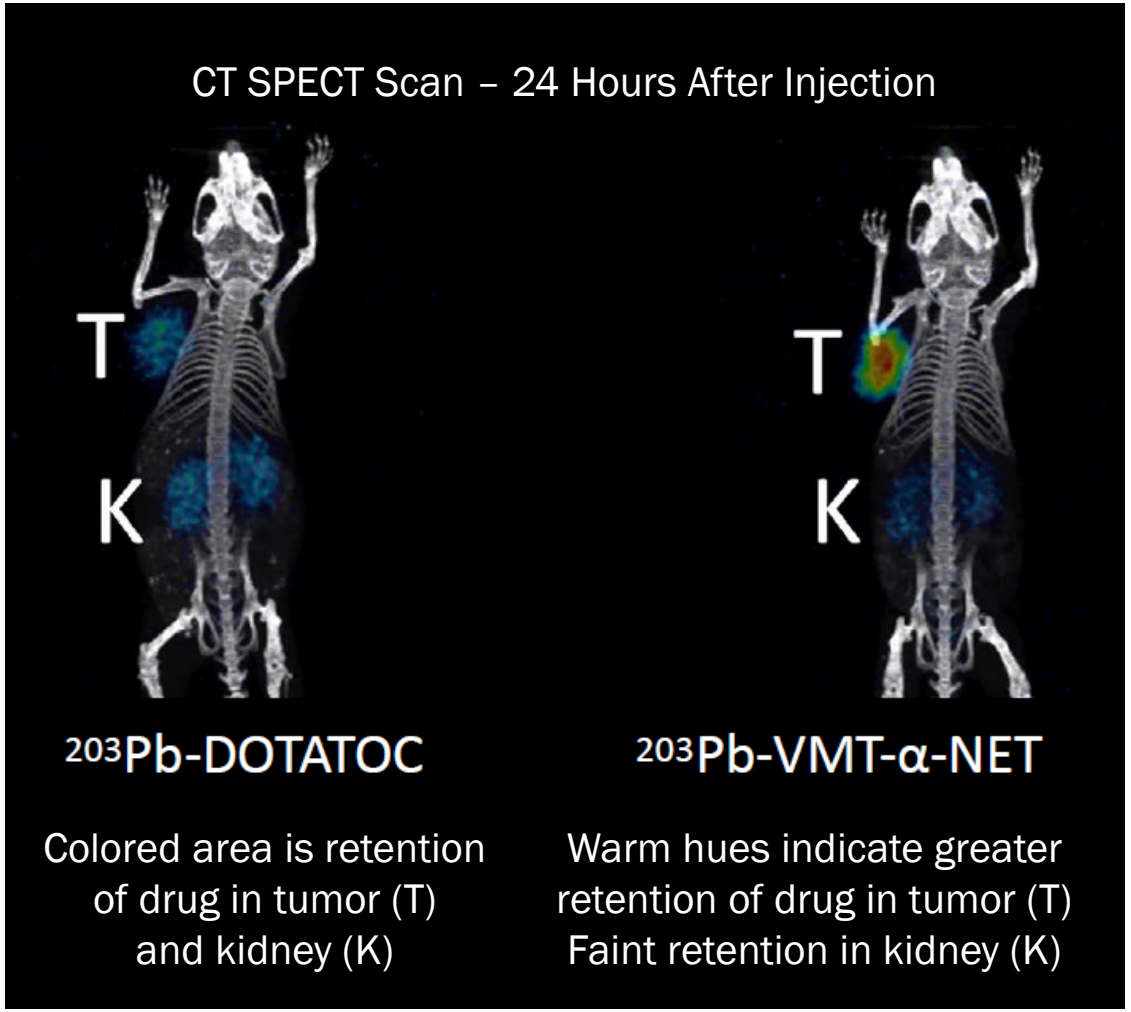
Preclinical Imaging Demonstrates Superiority of Perspective's Platform Technology

Key Takeaways

Tumor model expressing somatostatin receptor 2 (SSTR2)

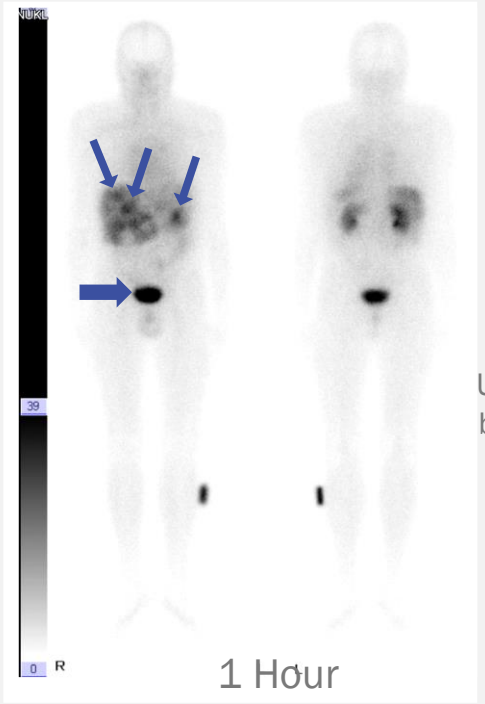
8X

8-fold improved tumor uptake with decreased kidney retention



Imaging Reveals Favorable VMT-α-NET Properties

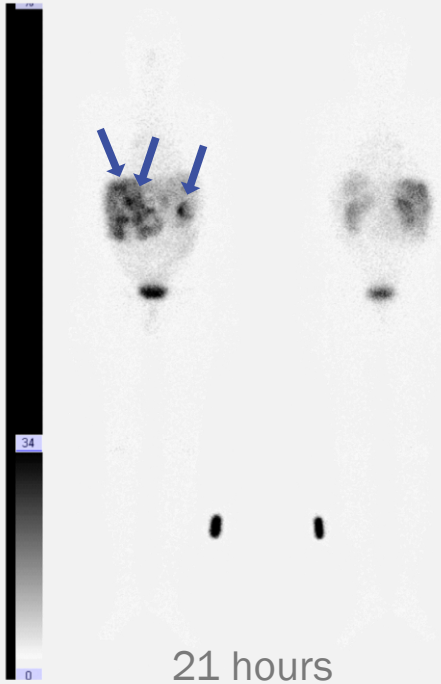
Rapid Tumor Targeting and Renal Clearance



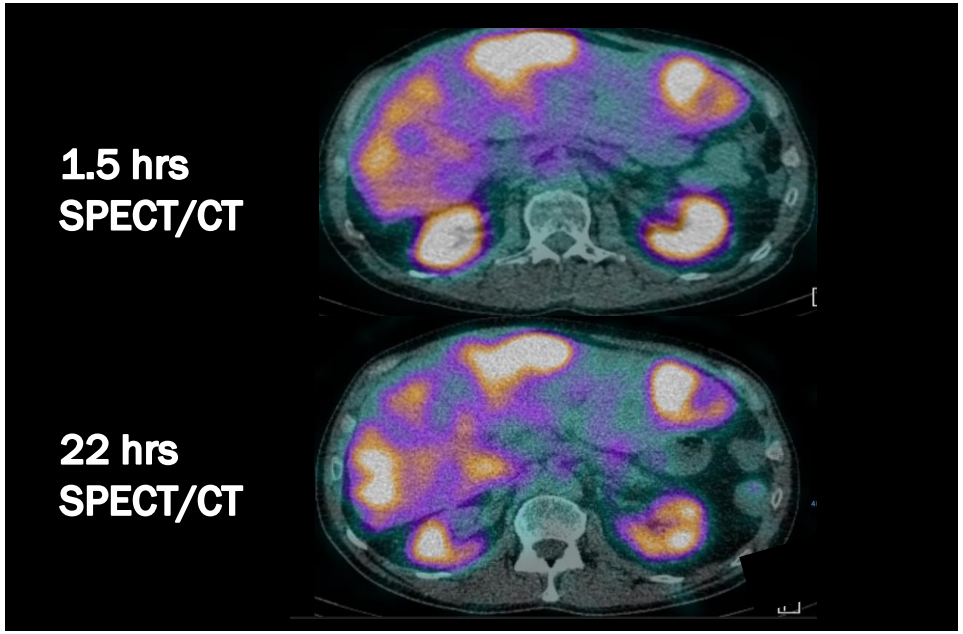
Tumors visible within 1 hr, high intensity above background

Unbound drug in bladder within 1 hour, low renal retention

High Tumor Retention



Whole body planar SPECT/CT

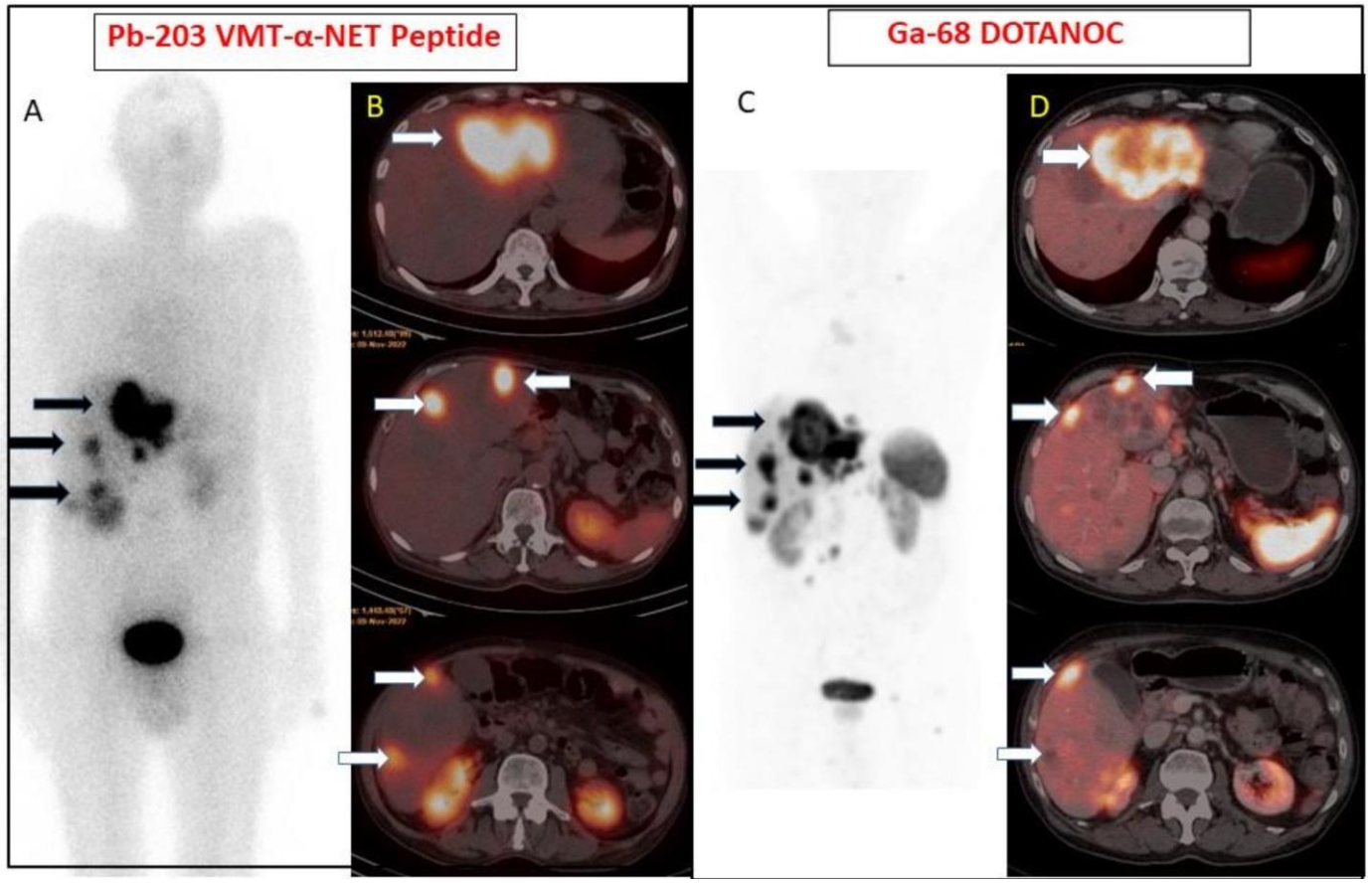


- ✓ Rapid tumor accumulation
- ✓ Rapid renal clearance
- ✓ Excellent tumor retention

UNIVERSITÄTS KLINIKUM ulm

Vikas Prasad MD
Professor of Nuclear Medicine
Deputy Director, Division of Nuclear Medicine
University of Ulm – Ulm, Germany

Imaging VMT-α-NET Clearly Identifies Lesions



- ✓ Whole body Planar (A) and transverse SPECT CT (B) images acquired at 2 hours post injection of ^{203}Pb-VMT- α-NET showed excellent uptake of Pb-203 VMT-α-NET peptide in the liver metastatic sites in a patient of metastatic neuroendocrine tumor
- ✓ A comparison with ^{68}Ga DOTANOC PET/CT scan demonstrated similar distribution of tracer in the metastatic liver lesions- Maximum intensity projection (C) and Fused transverse PET/CT slices (D).

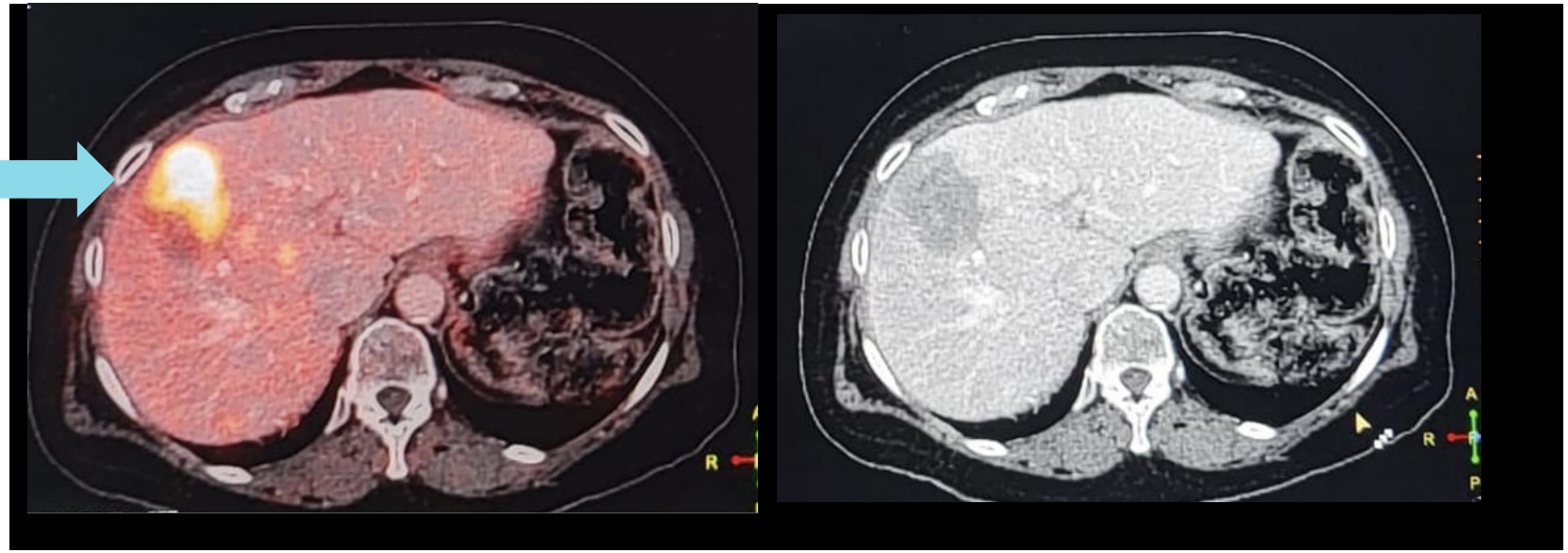
Clear uptake of tracer at sites with hepatic metastases

1st Patient with [212Pb]VMT-α-NET – NET patient, liver metastasis.

PET/CT

CT

Tumor Before Treatment



As presented Prasad V., PET RTRC Workshop, WashU, USA 2023

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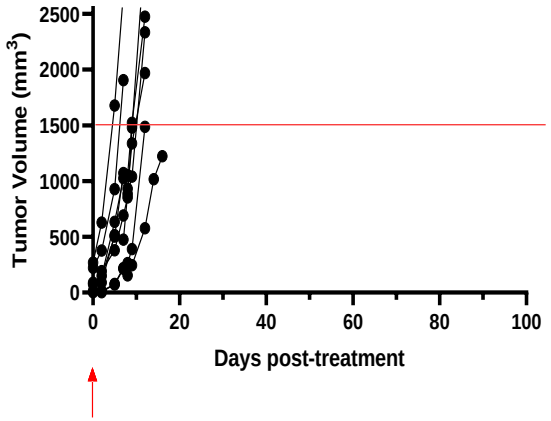
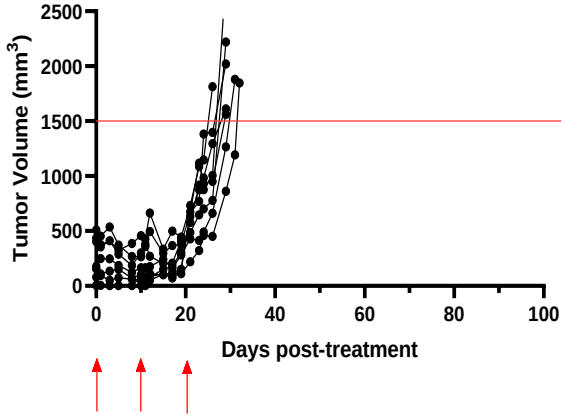
Preclinical Data

↑ Drug Administered

Vehicle



[^{177}Lu]DOTATATE (3 x 500 µCi)



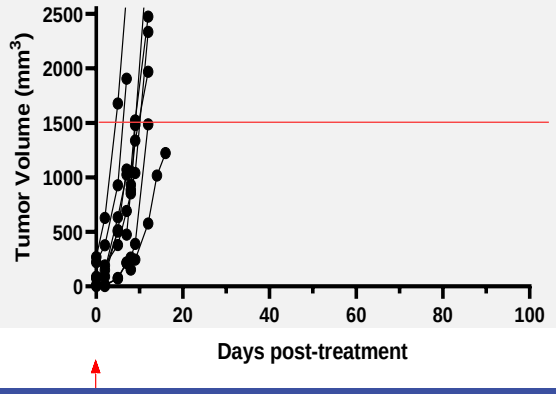
- Animal study in mice showing tumor growth curves of implanted neuroendocrine tumors
- Mice were treated with placebo vs. an FDA approved beta-emitter
- Targeted radiation shows improvements over placebo

Preclinical Data

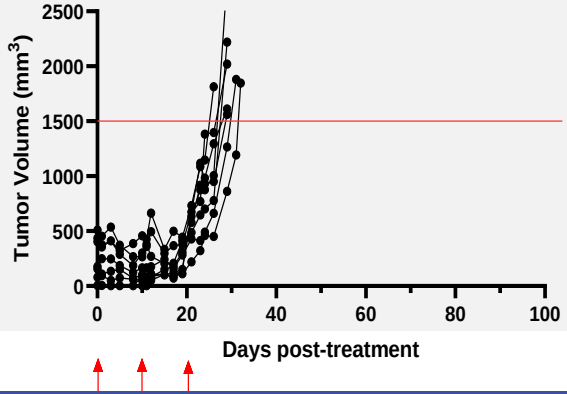
VMT-α-NET shows improvements with single or multiple doses

↑ Drug Administered

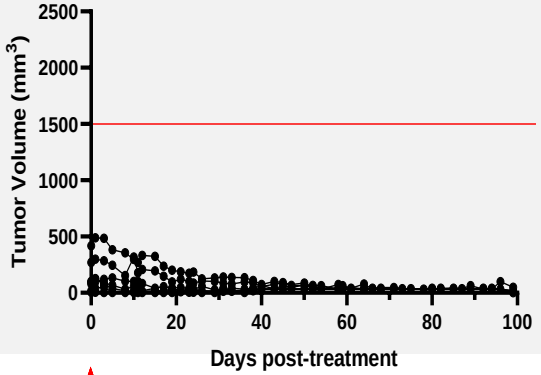
Vehicle



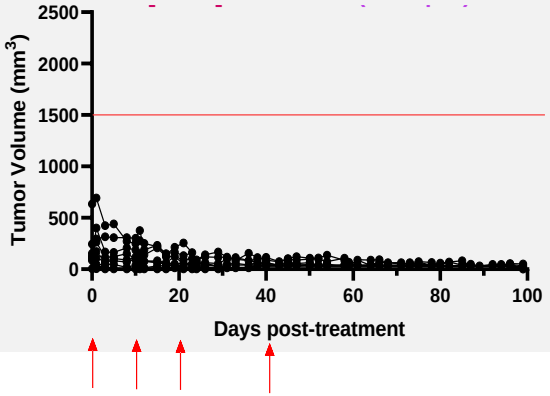
[^{177}Lu]DOTATATE (3 x 500 µCi)



[^{212}Pb] VMT-α-NET (120 µCi)



[^{212}Pb] VMT-α-NET (4X30 µCi)



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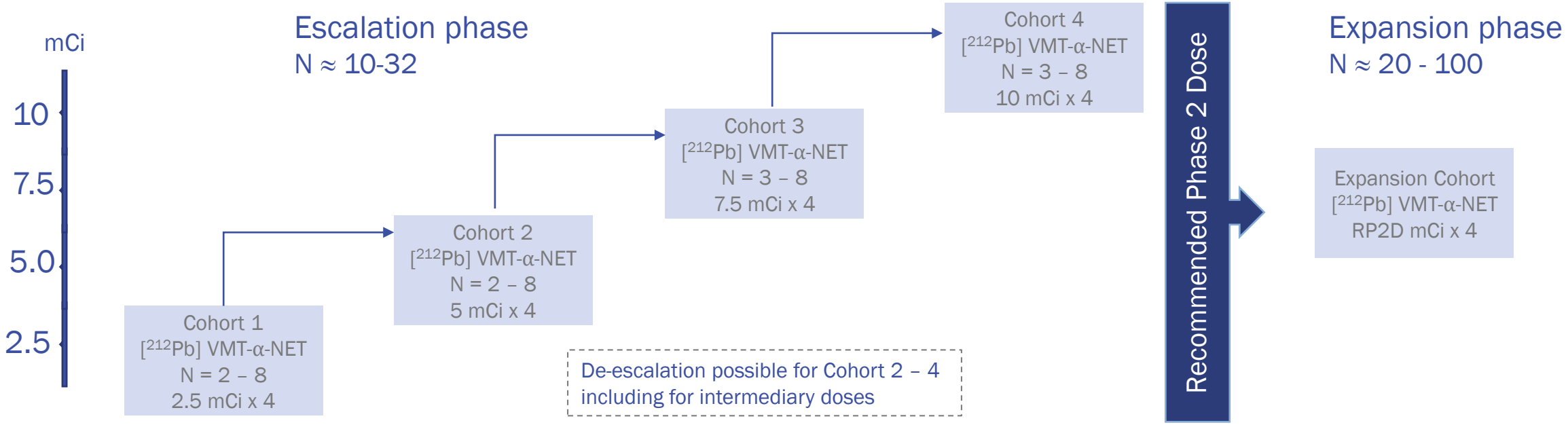
Phase I/IIa [^{212}Pb]VMT-α-NET mTPI [NCT05636618]

Primary Objective	To determine the MTD/MFD of [^{212}Pb]VMT-α-NET (RP2D)	**Imaging**	FDA approved SSTR2 PET/CT
Population **Escalation n≈10-32** **Expansion n≈20 - 100**	• Unresectable or metastatic SSTR2-positive neuroendocrine tumors • PRRT naïve	**Therapeutic Dose**	2.5–10 mCi dose escalation with fixed dosing every 8 weeks for up to 4 cycles
		Estimated Time to Primary Completion	~18 months
Design Methodology	Bayesian mTPI2 based on iterative toxicity probability monitoring	**Dosimetry**	To be assessed during screening for cohorts 1 & 2 using 5-7 mCi therapeutic surrogate[^{203}Pb]VMT-α-NET



Clinical Development Plan
Data expected 2023

VMT-α-NET
All neuroendocrine tumor types

Compassionate Image-Guided Therapy

Provisional Results Expected in 2023

Clinical Sites: Multiple global sites

Subjects: Up to 7 with refractory NETs

Phase: 0/1 First-in-human, compassionate use

Endpoints: Safety and tumor targeting by imaging

Secondary: Efficacy signal by serial imaging

Status: 3 subjects dosed with [$^{203/212}$Pb]VMT- α-NET

Phase I/IIa Dose Escalation Study

Expected to Commence Enrollment Q2 2023

Clinical Site: Multiple in US; Mayo, UI and UW +

Subjects: ~30; refractory ALL NETs, radiotherapy naive

Phase: Phase I/IIa; safety, mTPI-2* dose-ranging

Endpoints: Safety and tumor targeting by imaging

Secondary: Efficacy signal by serial imaging

Status: IND given “safe to proceed” from FDA

* mTPI-2: modified toxicity probability index

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Melanoma Program: VMT01/02

Using the melanocortin receptor MC1R to target melanoma for imaging and therapy

VMT01/02

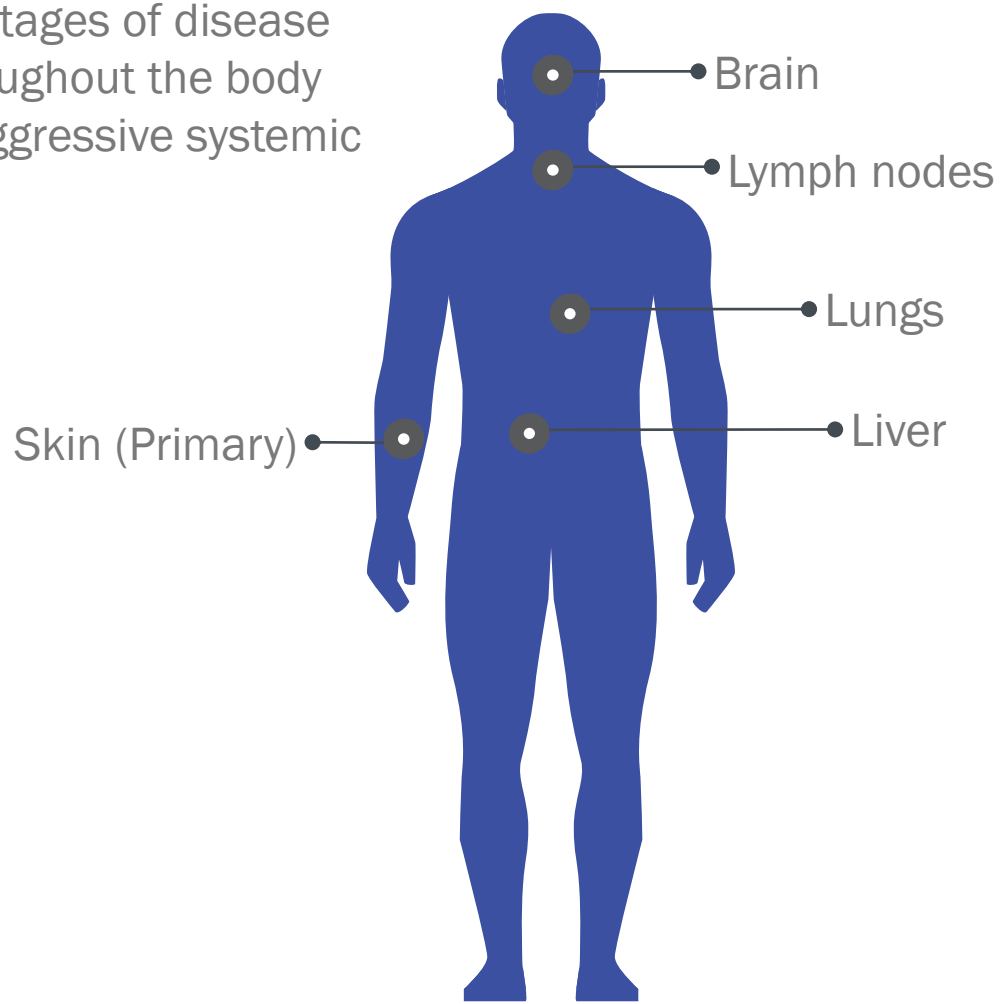
Currently in Phase 1/2a studies for the imaging and treatment of metastatic melanoma

Key Facts

- Targeting melanocortin 1 receptor (MC1R)
- Preclinical combination data (published) resulted in $2m NIH SBIR Grant
- Provisional results from completed Phase 1 imaging study expected H1 2023
  Studies being conducted at the Mayo Clinic Rochester
- Pending Orphan Drug Designation Application

Metastatic Melanoma

Advanced stages of disease occurs throughout the body requiring aggressive systemic treatment



Significant unmet need with an $8 billion market opportunity[1]

~100K new diagnoses of melanoma annually[2]

~6,850 deaths annually from metastatic melanoma[2]

In most cases, can't be cured but treatment can support a longer life

1: Combined 2019 sales for Opdivo, Yervoy ($4.1B), Keytruda ($2.5B), Taflinar+Mekanist ($1.5B) and Zellboraf, Cotellic ($270M); 2: cancer.org

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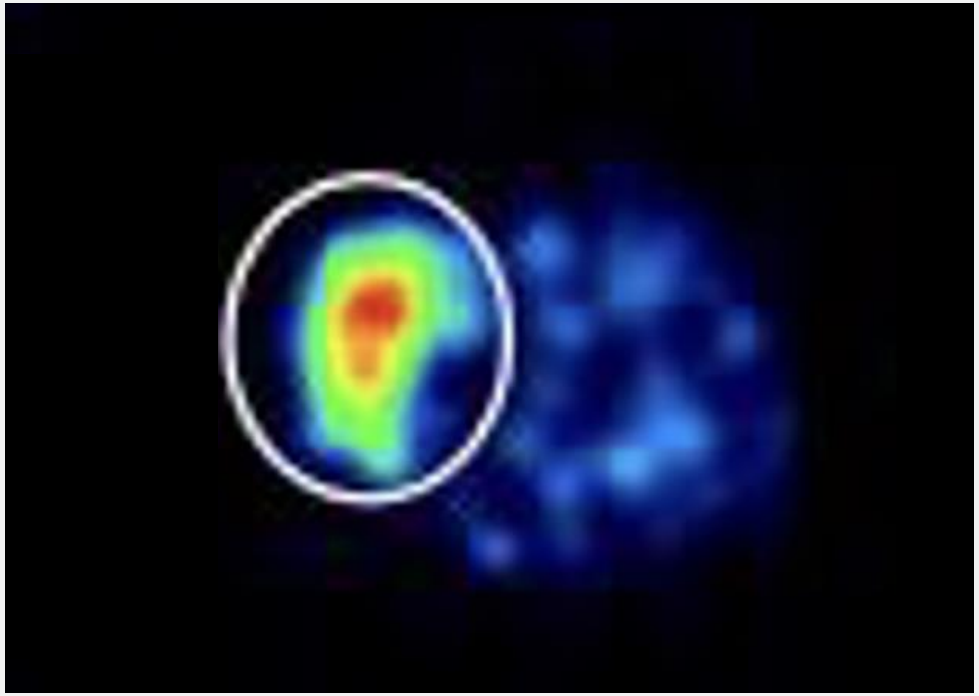
[^{203}Pb]VMT-01 Gives Clear Diagnostic Images in Melanoma

Mouse Melanoma

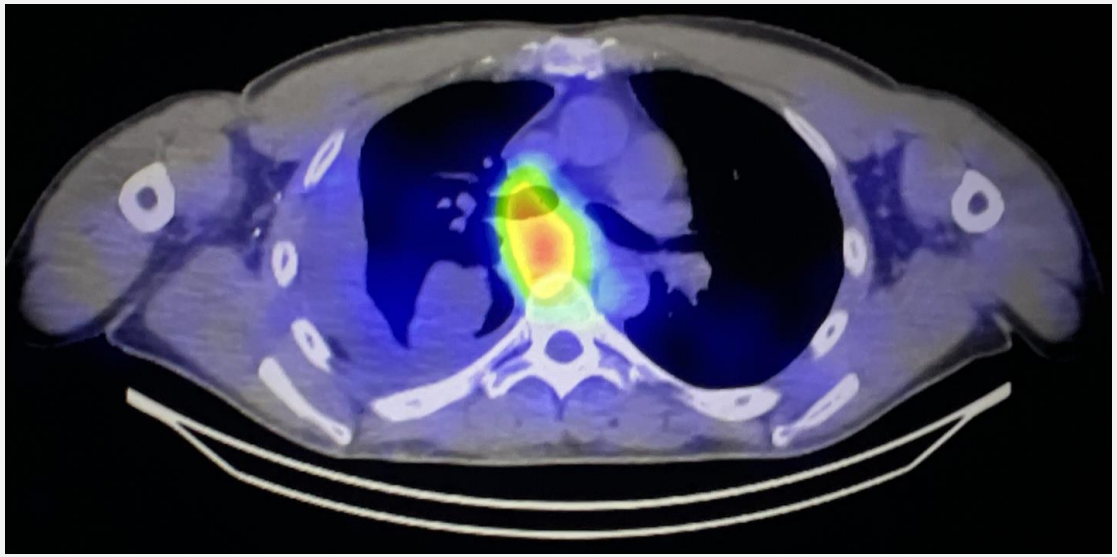
High intensity in implanted tumor above background



Preclinical microSPECT

Human Melanoma

High intensity in esophageal tumor above background



Whole body planar SPECT/CT

Demonstrated Complete Responses in Multiple Animal Tumor Models

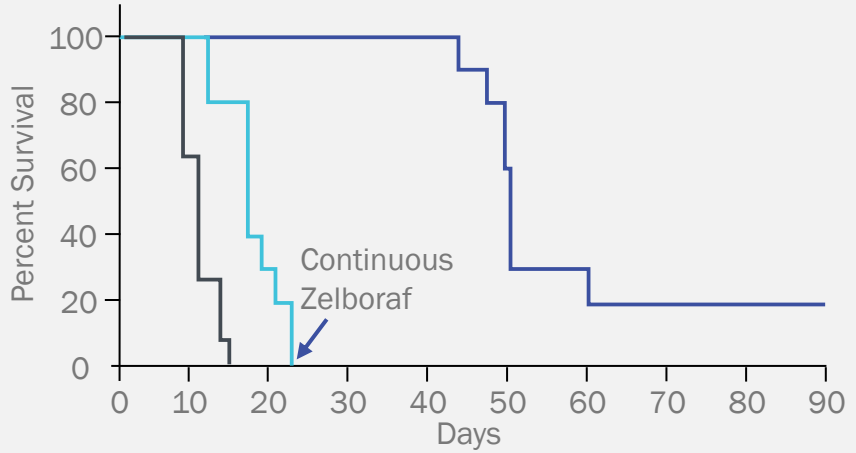
VMT01/02

Key Takeaways

- High response rates in multiple tested models
- 43% complete and durable response if combined with immunotherapy in a highly resistant model
- Combination with immune checkpoint inhibitors induced synergistic anti-tumor effect

Li et al., Mol. Pharm., Sep 3;16(9), 2019
Li et al., Cancers, Jul 22;13(15), 2021

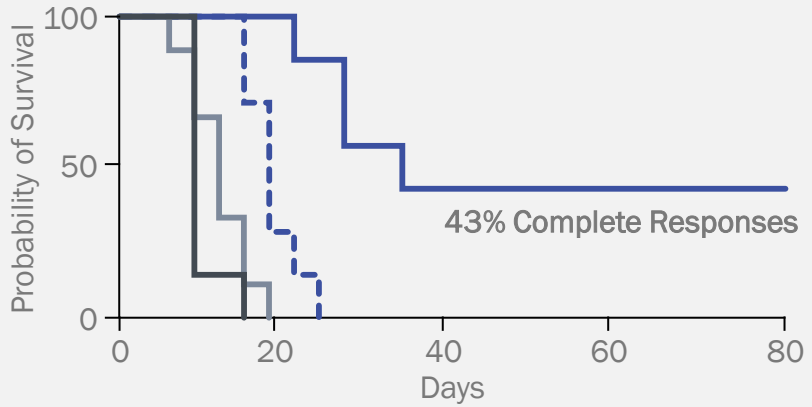
Single dose of VMT01 significantly arrested melanoma tumor growth and extended survival



Immunodeficient human melanoma xenograft model - BRAF+

Single dose VMT01 + BRAF*i* vs. BRAF*i* alone

- Control
- BRAF*i*
- ^{212}Pb α-therapy + BRAF*i*



Immunocompetent mouse B16:F10 melanoma model

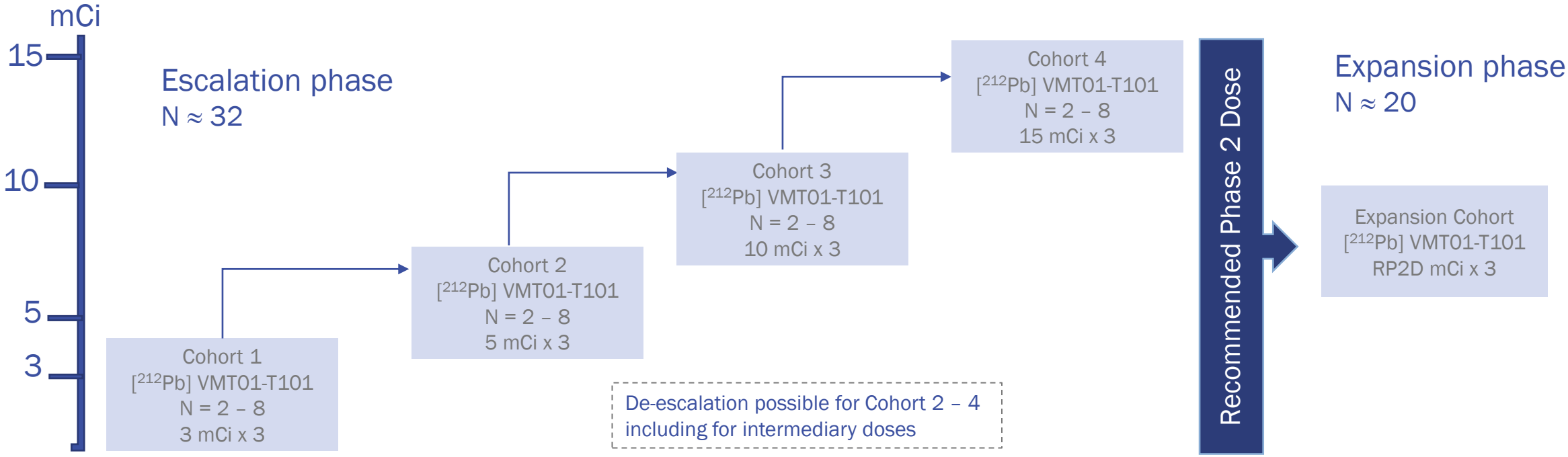
Dual ICI: (anti-CTLA4 + anti-PD1) vs. Single dose VMT01 + dual ICIs

- Control
- Dual ICIs
- ^{212}Pb α-therapy
- ^{212}Pb α-therapy + dual ICIs

PERSPECTIVE THERAPEUTICS

Phase I/IIa [^{212}Pb]VMT01-T101 mTPI [NCT05655312]

Primary Objective	To determine the MTD/MFD of [^{212}Pb]VMT01-T101 (RP2D)	**Imaging**	[^{203}Pb]VMT01 SPEC/CT or [^{68}Ga]VMT02 PET/CT
Population **Screen 120 subjects** **Enroll 52 subjects**	Unresectable or metastatic MC1R-positive Melanoma	**Therapeutic Dose**	3 – 15 mCi dose escalation with fixed dosing every 8 weeks for up to 3 cycles
		Estimated Time to Primary Completion	~18 months
Design Methodology	Bayesian mTPI2 based on iterative toxicity probability monitoring	**Dosimetry**	To be assessed using 15 - 25 mCi therapeutic surrogate [^{203}Pb]VMT01



Clinical Development Plan
Data expected in 2023

VMT01
Metastatic Melanoma

Completed Phase 1 Imaging Study

Provisional Results Expected in 2023

Clinical Site: Mayo Clinic (Rochester, MN)

Subjects: 7; Stage III/IV unresectable melanoma

Phase: Phase 1 First-in-Human, cross-over design

Endpoints: Safety and biodistribution

Secondary: Molecular target validation, image quality

Status: Closed for enrollment, IND open

Phase I/IIa Dose Escalation Study

Expected to Commence Enrollment Q2 2023

Clinical Site: 5 US sites +/- expansion to 15

Subjects: ~30; Stage III/IV progressive melanoma

Phase: Phase I/IIa; safety, mTPI-2* dose-ranging

Endpoints: Safety and tumor targeting by imaging

Secondary: Efficacy signal by RECIST 1.1

Status: IND safe to proceed

* mTPI-2: modified toxicity probability index

PERSPECTIVE THERAPEUTICS

Supporting Program: VMT-α-GEN

Controlling the Therapeutic Isotope Supply

^{212}Pb Supply via Reusable Desktop Isotope Generator

VMT-α-GEN

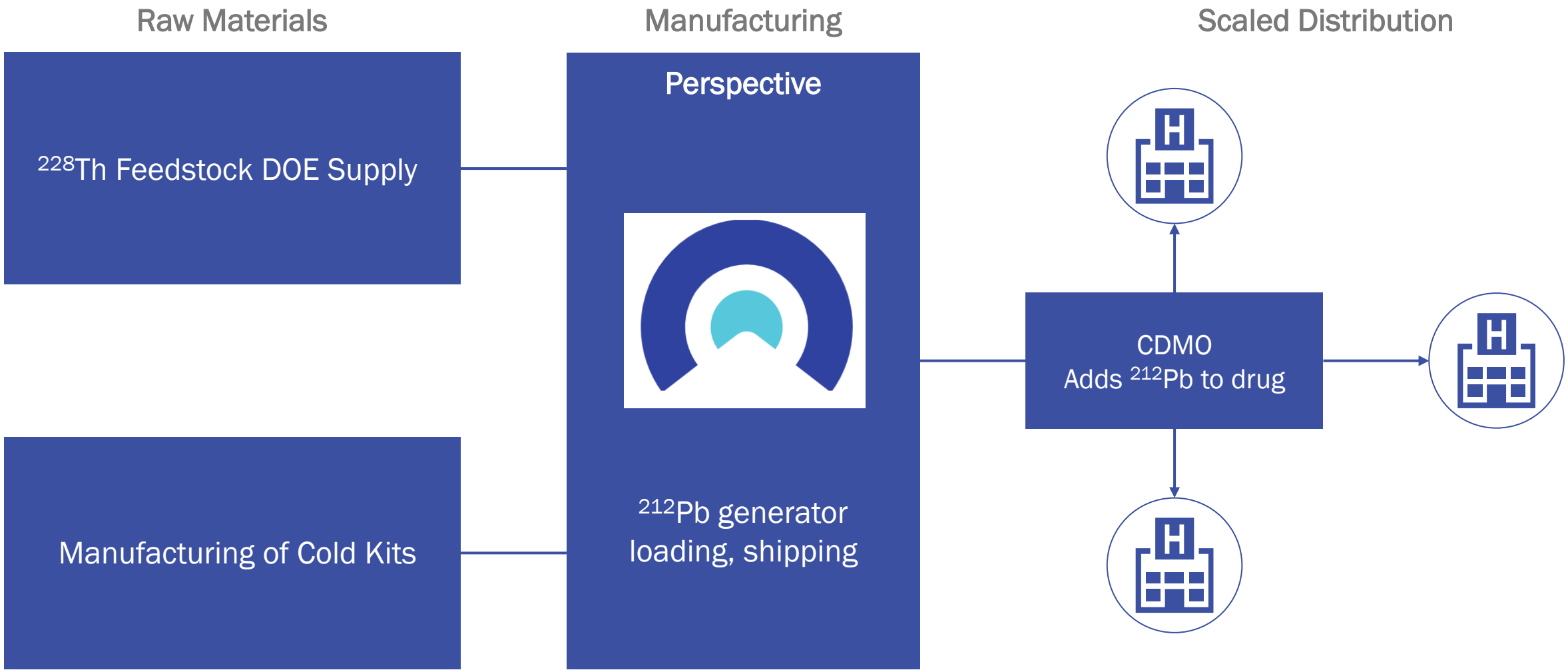
- "Limitless" feedstock from nuclear and mining waste material
- Long-term supply contract secured (US DOE)
- On demand daily doses
  - Auto-regenerates overnight
  - ≃1 week shelf life

Small, Elegant ^{212}Pb Isotope Generator

- Integrated lead shielded containment
- Simple inlet and outlet ports
- Radioactive feedstock for nearly 300 generators fits in a small vial

PERSPECTIVE THERAPEUTICS

Controlling the Therapeutic Isotope Supply



Corporate Overview

Intellectual Property

Fully Licensed University IP

3 provisional patents

- Composition of Matter and Use VMT-α-NET, Chelator
  - USA, EU, Australia

3 issued patents

- Composition of matter and use on melanoma targeting peptides
  - USA
- Composition of Matter and Use VMT01
  - USA, EU, Australia

Potential for Orphan Drug Designation

Potential for U.S. FDA Priority Review Voucher

- VMT-α-NET is a candidate for pediatric neuroblastoma indication

Clinical Trial Principal Investigators

Renowned Experts in Radiotherapy Development

Geoffrey B. Johnson MD, PhD
Chair, Division of Nuclear Medicine

Chair, PET/MR R&D
Associate Professor Departments of Radiology and Immunology
Mayo Clinic – Rochester, MN

Yusuf Menda MD
Professor of Radiology

Chair, Division of Nuclear Medicine
Project Leader
Neuroendocrine Tumor SPORE
University of Iowa – Iowa City, IA

Vikas Prasad MD
Professor of Radiology

Associate Professor Radiology, Division of Nuclear Medicine
Washington University in St Louis – St Louis, MO

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University of Iowa – Iowa City, IA

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Associate Professor Radiology,
Division of Nuclear Medicine

Washington University in St Louis – St Louis, MO

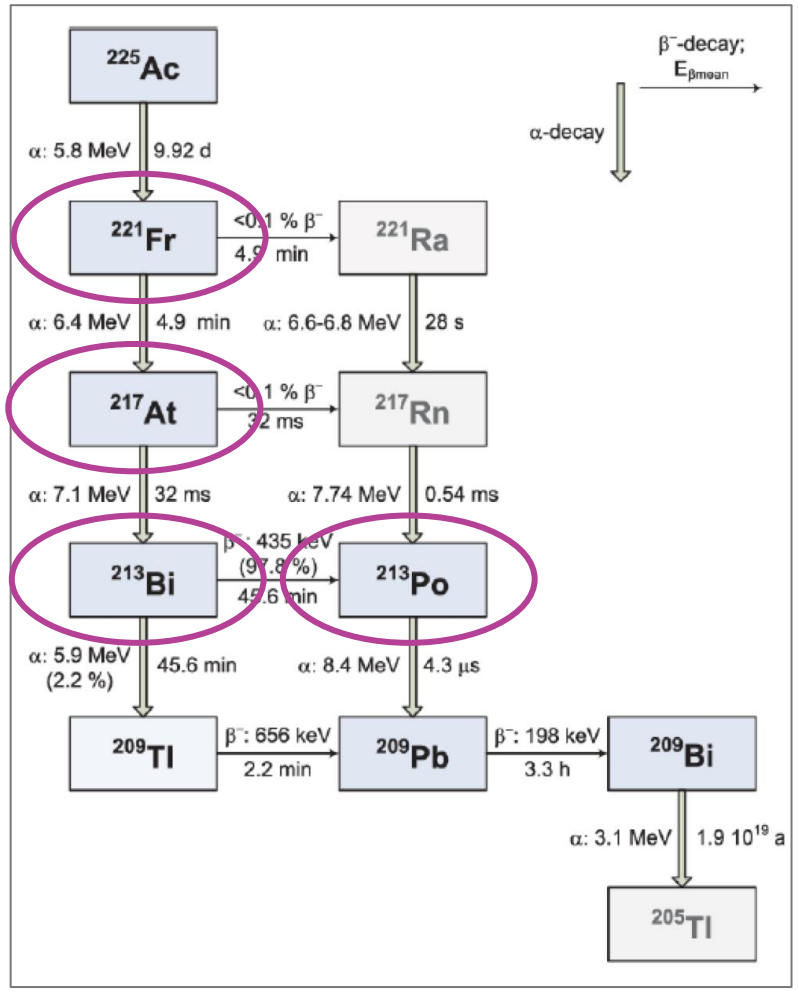
Washington University in St.Louis

PERSPECTIVE THERAPEUTICS

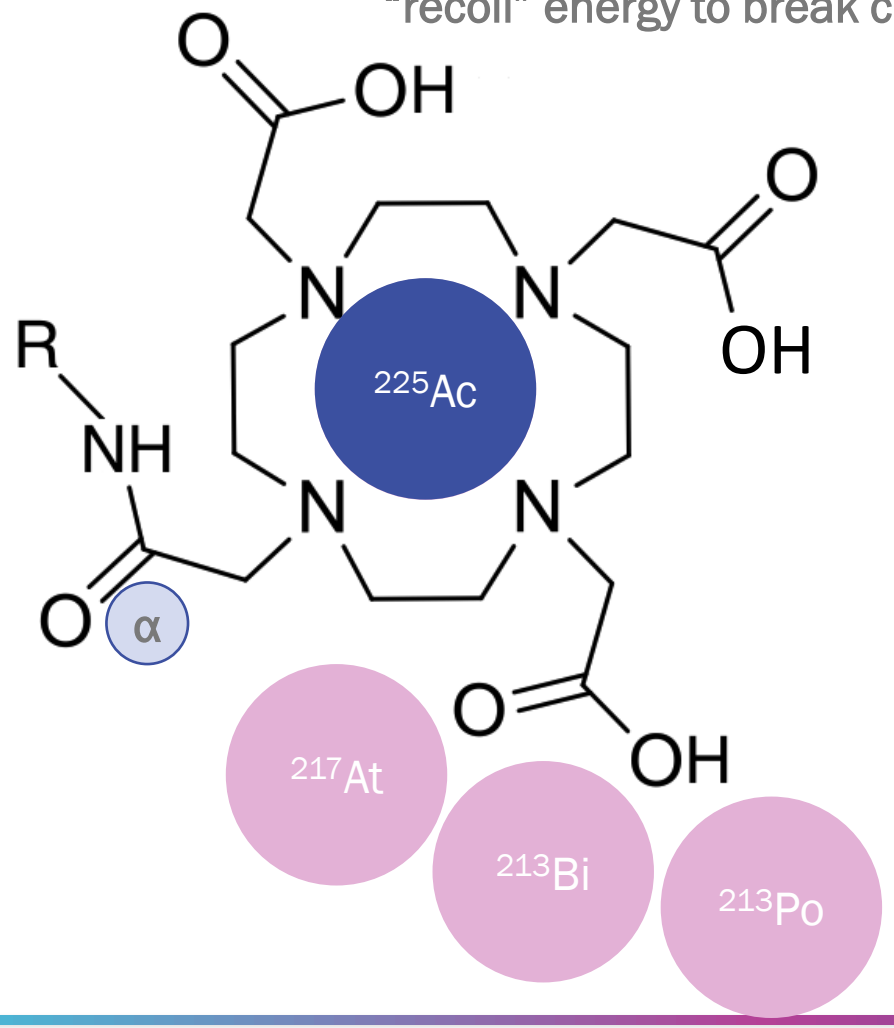
Appendix

Isotope: Decay chain – Biological implications

^{225}Ac Decay Series



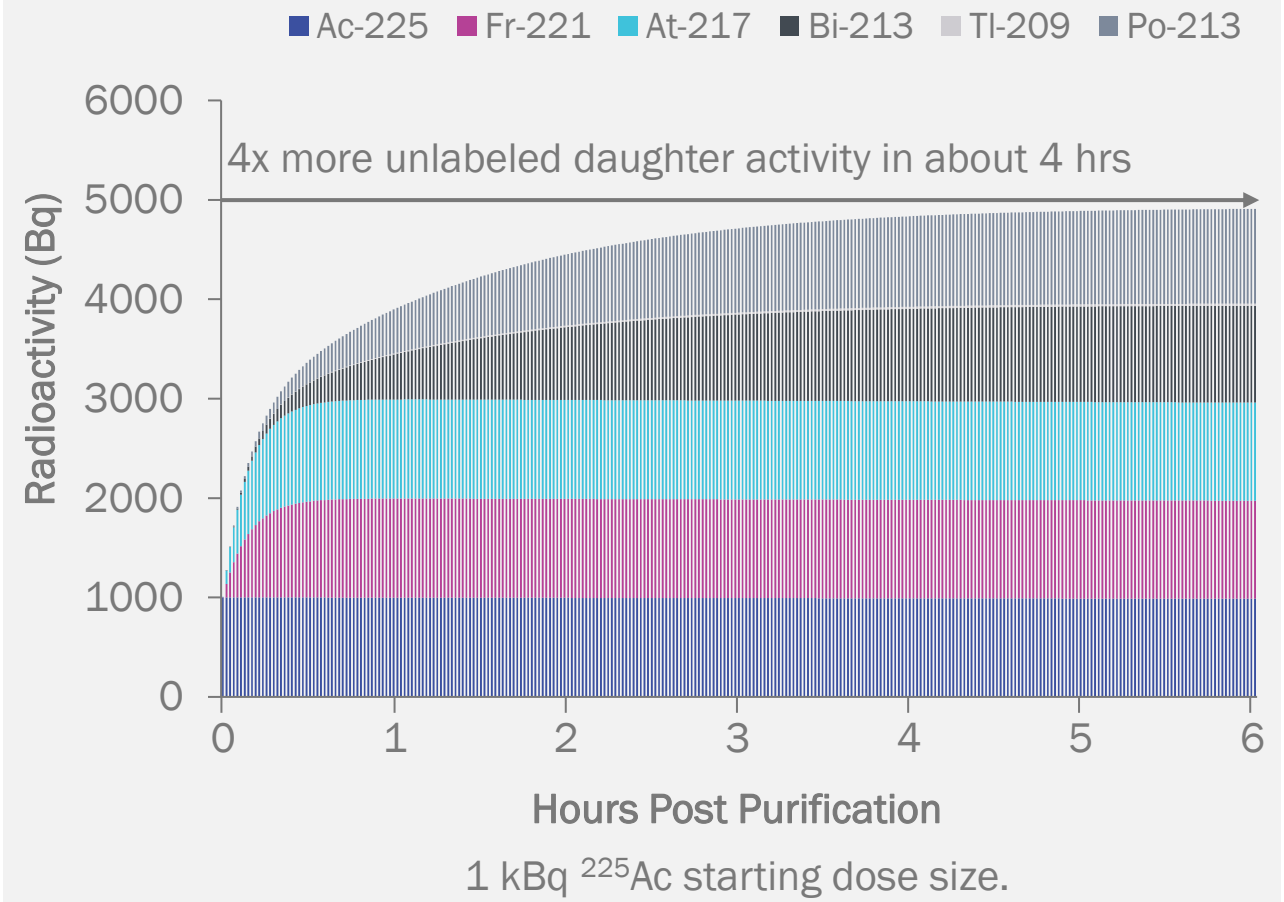
Alpha-particle emission imparts sufficient "recoil" energy to break chemical bonds.



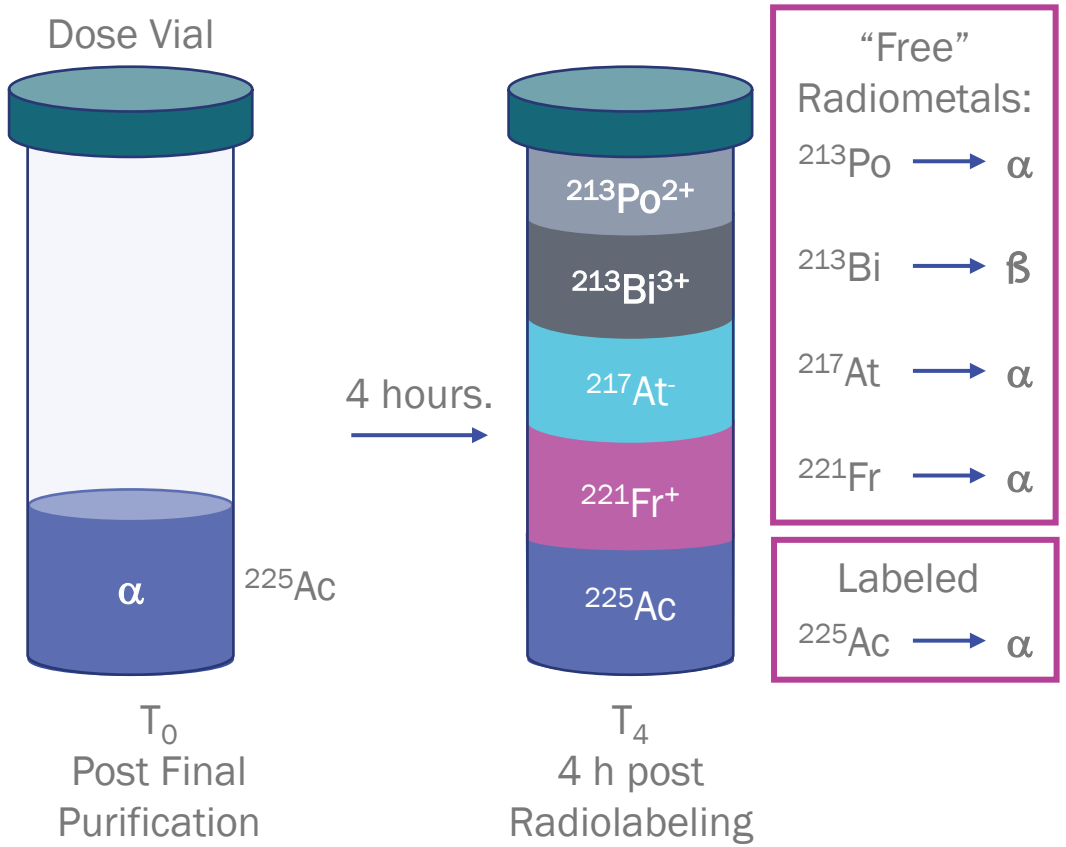
Isotope: Decay chain – Product implications

Post final radiolabeling and purification, alpha and beta emitting daughters of ^{225}Ac build up fast.

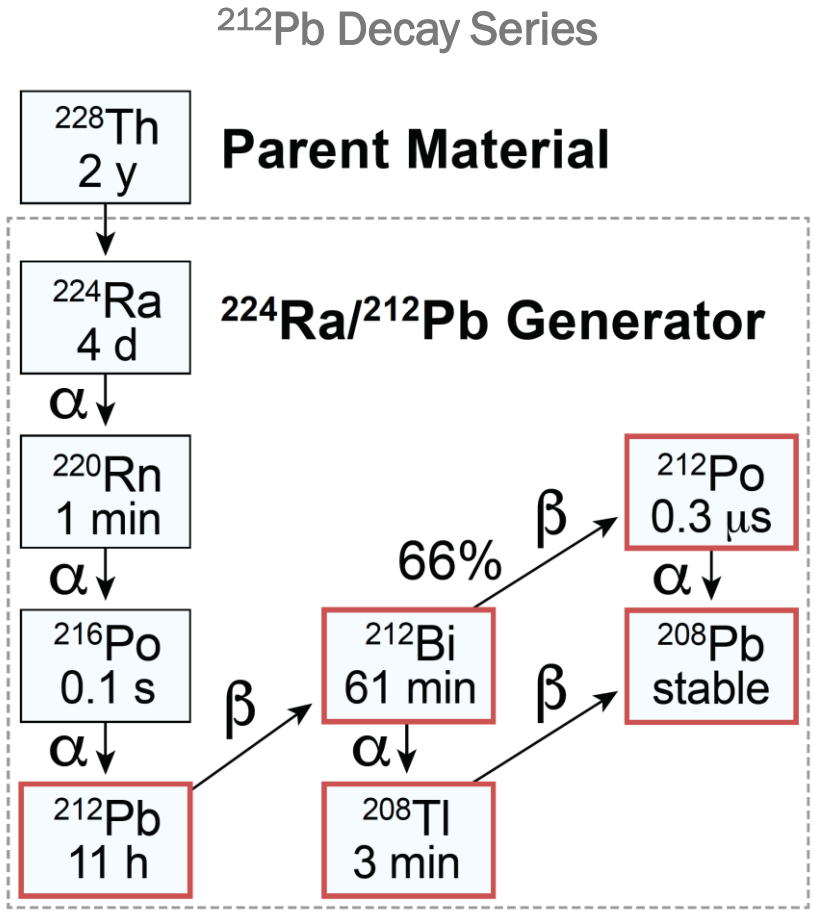
Ac-225 Decay and Daughter Ingrowth

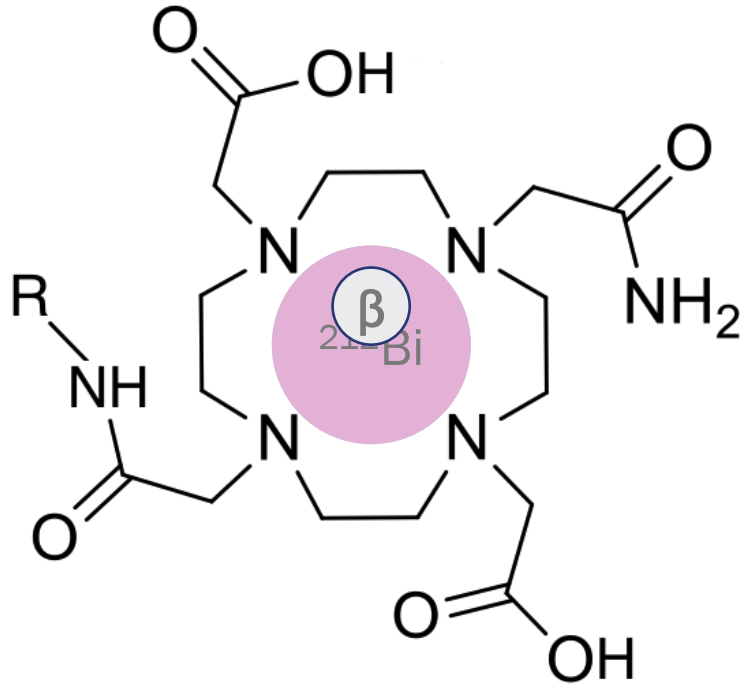


1 kBq ^{225}Ac starting dose size.



Isotope: Decay chain and chelator selection





[212Pb]PSC