



PERSPECTiVE
THERAPEUTICS

Corporate Presentation

March 2024

NYSE: CATX

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Investment Highlights

Platform radiopharmaceutical company targeting **pan-cancer opportunities** utilizing 2nd generation α -emitter

Proprietary chelator-based peptide targeting platform provides engine for pipeline expansion

Robust clinical pipeline with focused two clinical-stage programs. VMT- α -NET – First in human trial ongoing for neuroendocrine tumors. VMT01 – Targeting the melanocortin 1 receptor (MC1R) for melanoma

Theranostic ^{203}Pb – ^{212}Pb dual isotope enables imaging and therapy, improving patient selection and outcomes

Multiple expected **near-term readouts and milestones** through to 2025

Vertically integrated in-house manufacturing of ^{212}Pb isotope supply simplifies manufacturing and can leverage existing radiopharmacy logistics for broad distribution

Platform Expansion Engine

Two Lead Programs in Clinic and Broad Proprietary Pipeline

Program	Indication	Discovery	Human Clinical Imaging	First in Human Therapy	Phase 1/2	Phase 3
VMT- α -NET	Neuroendocrine cancers					
	Pheochromocytomas, paragangliomas					
	Small cell lung cancer					
VMT01	Melanoma (MC1R)					
VMT02 (PET agent)	Melanoma (imaging of MC1R)					
PSV359 (Novel peptide)	Multiple solid tumors					
PSV401 (Radio-hybrid)	Prostate (PSMA imaging & therapy)					
Program 5 (Novel peptide)	Prostate, Breast					
Pre-targeting Platform (mAbs)	Solid and hematological tumors					
Other Programs (Novel peptides)	Solid and hematological tumors					

Pipeline With Multiple Expected Near-Term Data Readouts

Pipeline										
Program	Indication	Phase	4Q23A	1Q24E	2Q24E	3Q24E	4Q24E	1Q25E	2Q25E	3Q25E
VMT-α-NET	Neuroendocrine Tumors	Phase 1/2a	Enrollment in Phase 1/2a dose escalation study ongoing							
			Therapy results 10 pts: compassionate use				Phase 1 Dose Escalation in NETs preliminary readout		Dose Expansion Cohort in NETs preliminary readout	
VMT01/VMT02	Metastatic Melanoma	Phase 1/2a	Enrollment in Phase 1/2a dose escalation study ongoing							
			Phase 1 Dose Escalation in Melanoma preliminary readout				ICI Combo Expansion in Melanoma preliminary readout			
Various Developmental Programs	Multiple Solid Tumors	Pre-Clinical	Pipeline Expansion with Imaging Data				Preliminary Therapy – solid tumors			
	Prostate Cancer									
	Breast Cancer		Pipeline Expansion with Imaging Data						Preliminary Therapy – solid tumors	
	Lung Cancer								Pipeline Expansion with Imaging Data	

Management Team

Deep Experience in Radiopharmaceuticals and Oncology Drug Development



Thijs Spoor

Chief Executive Officer

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



Markus Puhlmann, MD MBA

Chief Medical Officer

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



Michael Schultz, PHD

Chief Science Officer

20+ years industry and research experience in radiopharmaceuticals; co-founder Viewpoint MT & inventor of Perspective products



Jonathan Hunt

Chief Financial Officer

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



Frances Johnson, MD

Chief Innovation Officer

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



Amos Hedt

Chief Business Strategy Officer

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

Radiopharmaceuticals are a Pillar of Oncology Treatment

Unique Mechanism of Action Offers Pan-Cancer Opportunities

Molecularly Targeted Radiation

Radioligands can precisely deliver radiation directly to cancer cells reducing off-target effects
Proven pillar of cancer treatment

Perspective's platform technology is optimized for greater efficacy and fewer side effects

Optimized Patient Selection

Molecular imaging companion diagnostics enable visualization of the therapeutic target
Enables the selection of patients who may best respond to therapy

Perspective's elementally matched isotopes are paired for imaging and therapy

Monotherapy Activity and Combination Synergies

Ability for both monotherapy and combination treatments
Potential synergies with DNA damage response and immune checkpoint inhibitors

Perspective's targeted alpha therapy delivers potent and immunostimulatory radiation to tumor

Outpatient Friendly

Modern medical isotopes enable radiopharmaceuticals to be administered outside of hospitals
Treatments are easily-accessible globally with several hundred therapeutic locations in the U.S alone
Perspective's short half-life isotopes simplify patient administration and waste management

Unique Business Opportunity

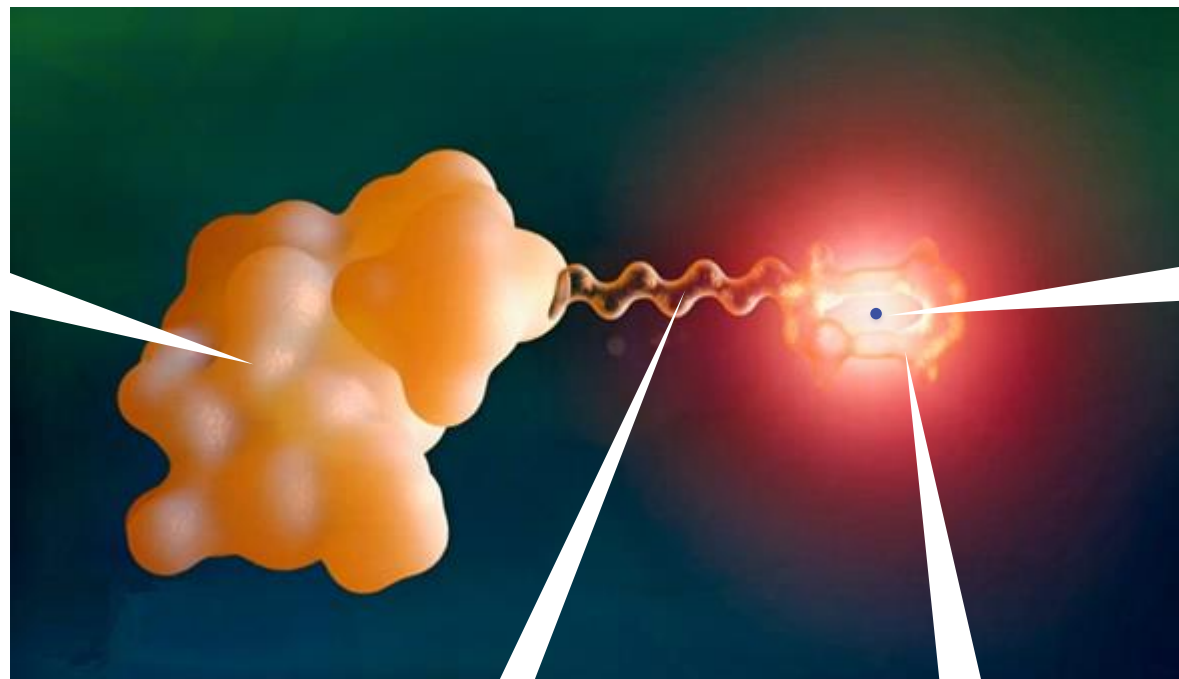
Radiopharmaceutical theranostic product development is highly-specialized and technical
Greater expertise needed than for standard medicines potentially creating higher barriers to entry
Perspective develops patent-protected best-in-class intellectual property

Perspective's Radiopharmaceutical Optimization Process

Unique Mechanism of Action Offers Pan-Cancer Opportunities

Targeting Peptide

Engineered for cancer-specific receptors to ensure highly directed uptake



Isotope

^{203}Pb for SPECT imaging
or
 ^{212}Pb for alpha particle therapy

Linker

Selected to assist peptide binding and optimize clearance from blood and healthy tissues

Chelator

Perspective's proprietary platform technology enabling stable radiolabeling with Pb isotopes

Lead-212 (²¹²Pb): The Optimal Therapeutic Isotope

Alpha Particles Provide Numerous Benefits Over Currently Used Beta Particle Radiotherapies

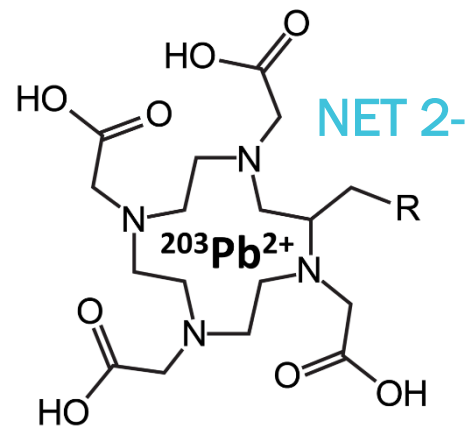
- With a much higher atomic mass, **alpha (α)** particles generate more energy and travel a shorter distance compared to beta (β) particles, making them more cytotoxic, while reducing their off-targeting effects on healthy tissue
- Alpha radiation causes direct lethal double-stranded DNA breaks, vs indirect single-stranded breaks in beta (β) radiation
- Cell death expected – NO resistance
- Greater therapeutic efficacy expected to improve outcomes with better safety

	Lead (²¹² Pb)	Iodine (¹³¹ I)	Lutetium (¹⁷⁷ Lu)	Actinium (²²⁵ Ac)	Implication ¹
Emission Profile	Alpha	Beta	Beta	Alpha	Potent
Half Life	0.46 days	8 days	6.7 days	10 days	High dose-rate
Off Target Toxicity Risk	Low	Very high	Low	High	Best
Supply	High	High	Low	Low	Abundant
Cost of Production	Low	Low	High	High	High margin

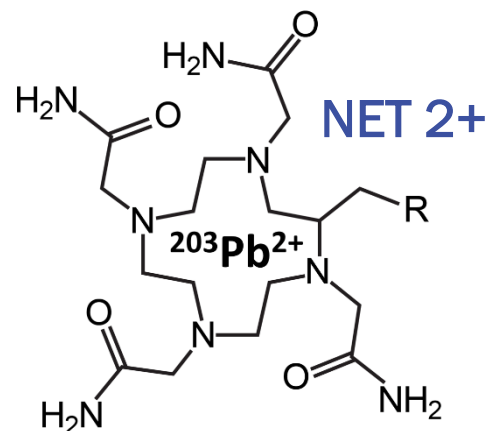
Chelator Optimized for $^{212/203}\text{Pb}$

Perspective's Enabling Technology for Pb-based Radiopharmaceuticals

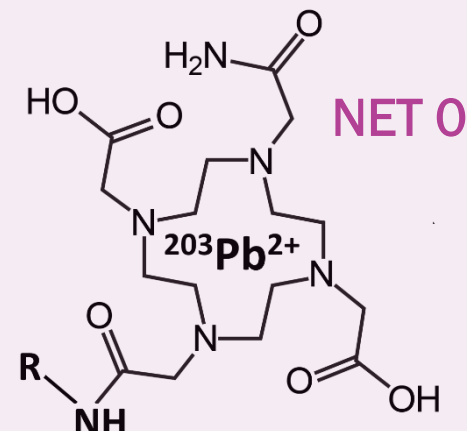
DOTA



TCMC



PSC¹



Commercially Available

Perspective's Chelator

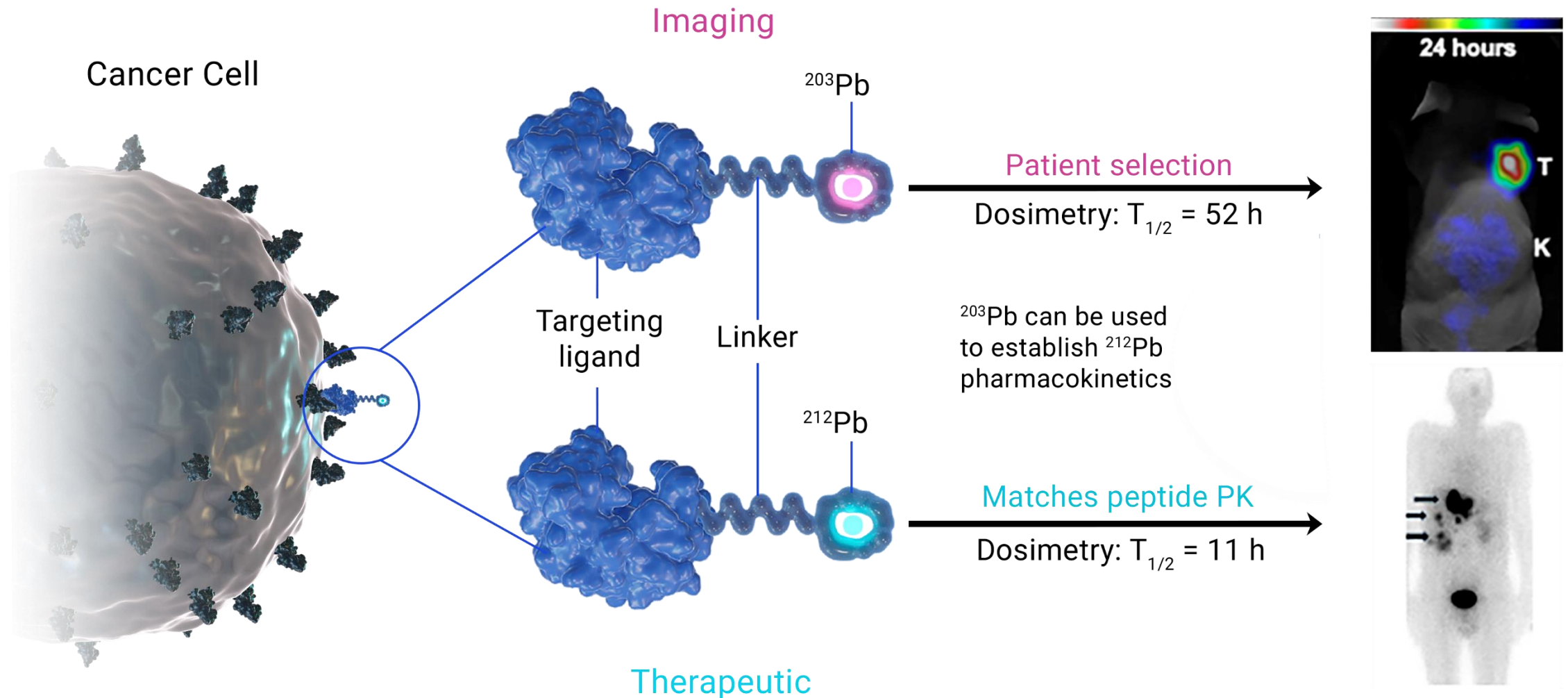
Perspective's Proprietary Chelator:

- Designed specifically for Pb isotopes
- Optimized for rapid renal clearance through neutralized formal charge
- Improves radiolabeling, receptor binding & internalization
- Generic chelators leak the ^{212}Bi alpha-emitting daughter up to 36%²

Generic chelators have not been optimized for Pb isotopes, potentially compromising safety, efficacy and manufacturing efficiency

Pb-based Theranostics Enable Both Diagnosis and Targeted Treatment of Cancer

Identical Distribution of ^{203}Pb and ^{212}Pb for Imaging and Treatment, Respectively



Neuroendocrine Tumors: VMT- α -NET

Targeting the somatostatin receptor to treat rare neuroendocrine-type cancers

VMT- α -NET Currently in Phase 1/2a Studies: Key Facts



Targeting somatostatin receptor type 2 (SSTR2) for the imaging and treatment of neuroendocrine tumors

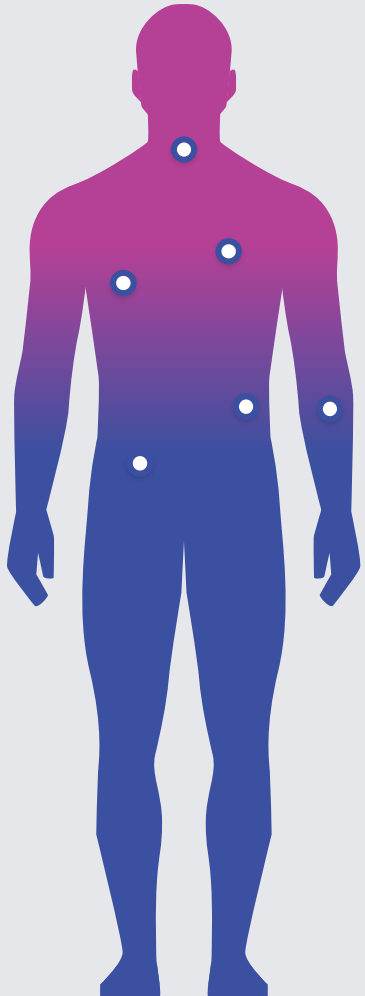
Initiated first-in-human imaging (2021) & therapy (2022) under compassionate use

Fast Track Designation for first line therapy received October 2022
Therapeutic Trial in first line setting currently recruiting under open IND

US Phase 1 prospective dosimetry study in PRRT refractory patients recruiting at the University of Iowa

SSTR2 is an Attractive Target for Identifying and Treating Tumors

Expressed Across Several Tumor Types



Neuroendocrine tumors (NETs)

- Neuroendocrine cells are specialized cells that secrete hormones and other bioactive substances
- Neuroendocrine cells are found throughout the body
- Often grow in the pancreas or other areas of the gut, such as the stomach, small intestine, rectum, colon or appendix

SSTR2 is expressed widely in various tumors

- Meningioma
- Pituitary adenomas
- Nasopharyngeal carcinoma
- Thyroid cancer
- Breast cancer
- Small cell lung cancers
- Merkel cell carcinoma
- Melanoma

Superiority of Perspective's Platform Technology vs Generic Compounds

Decreased Off-Target Toxicity, Increased Tumor Uptake and Retention in Preclinical Studies

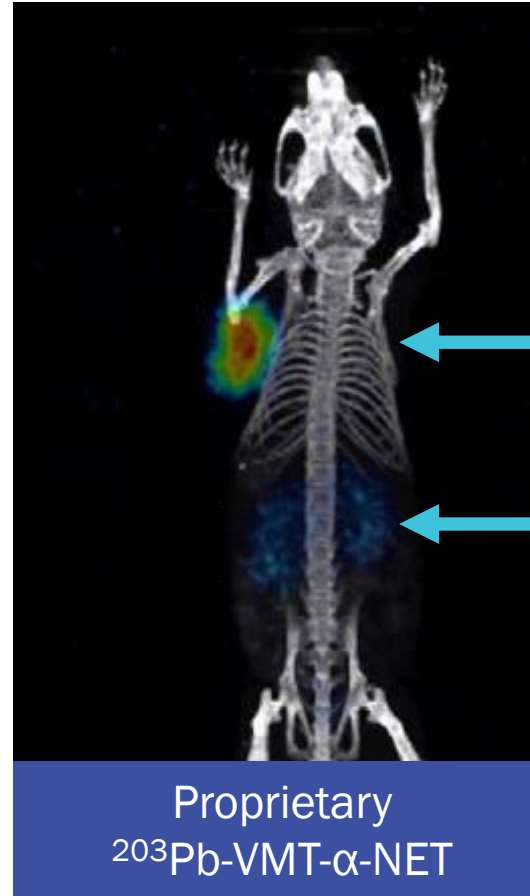
Key Takeaways



SSTR2 tumor model demonstrates superiority of VMT- α -NET to generic compounds

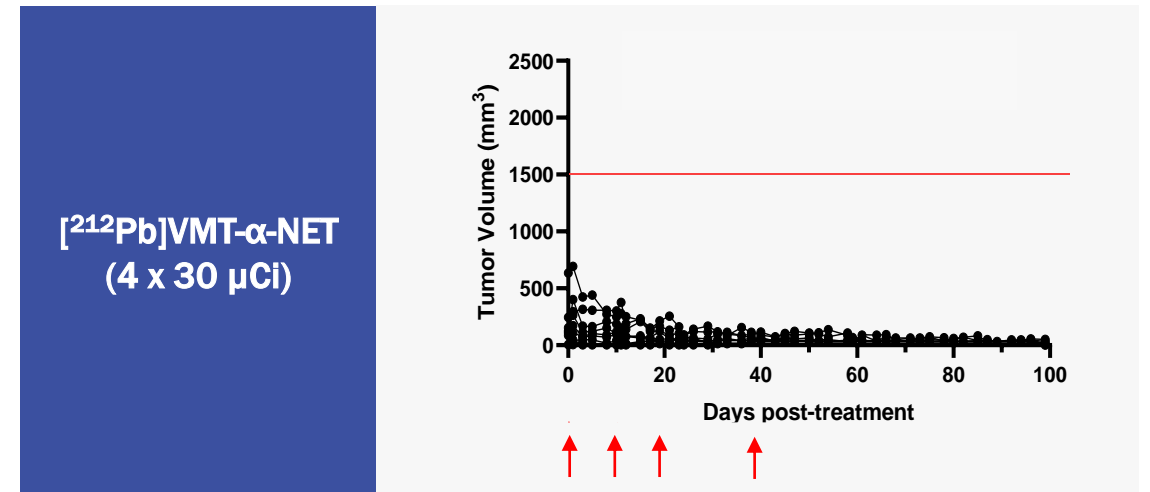
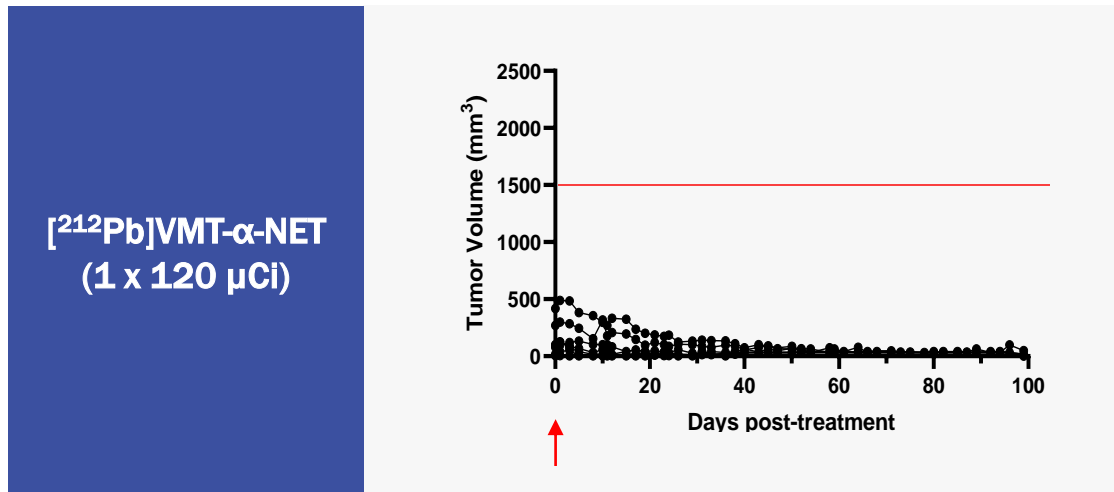
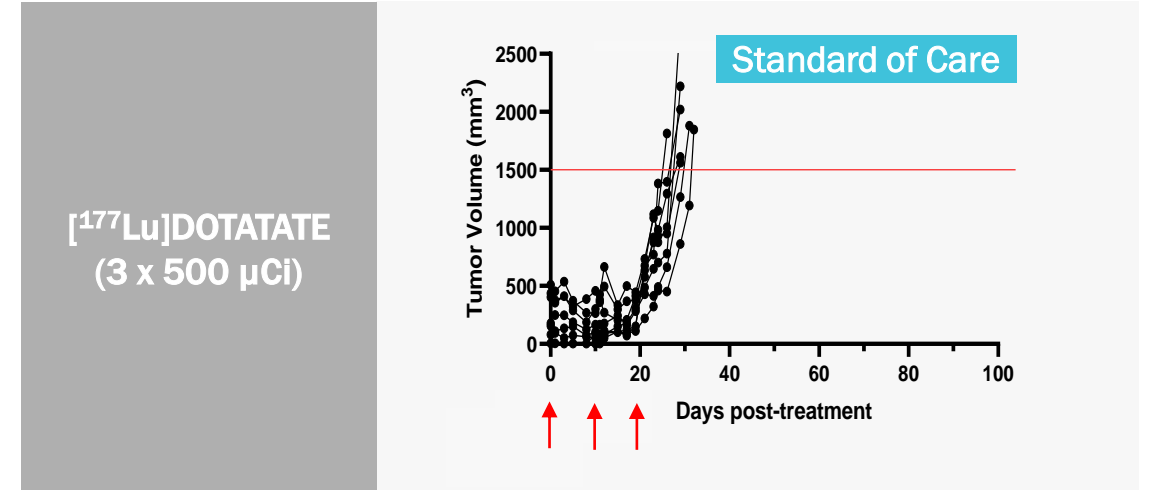
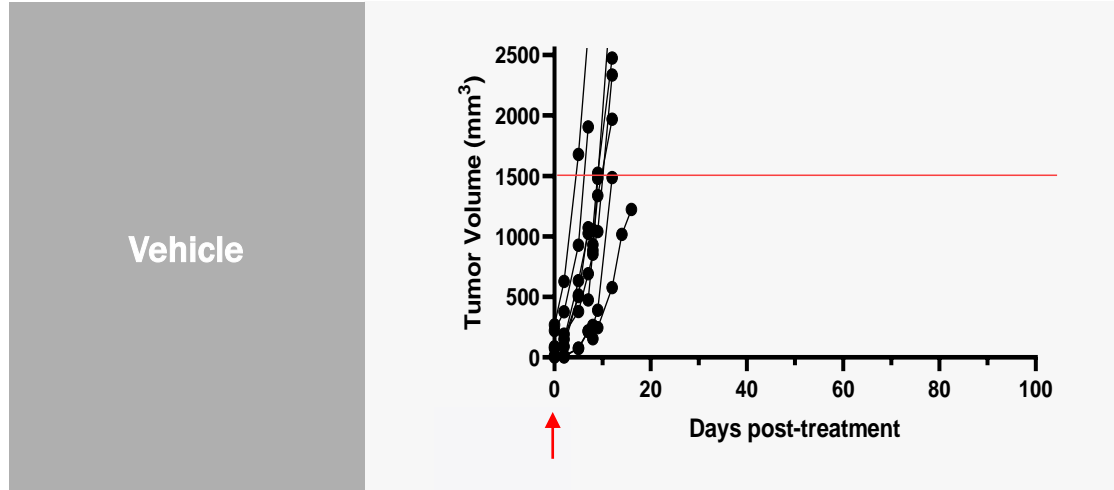


8-fold improved tumor uptake with decreased kidney retention

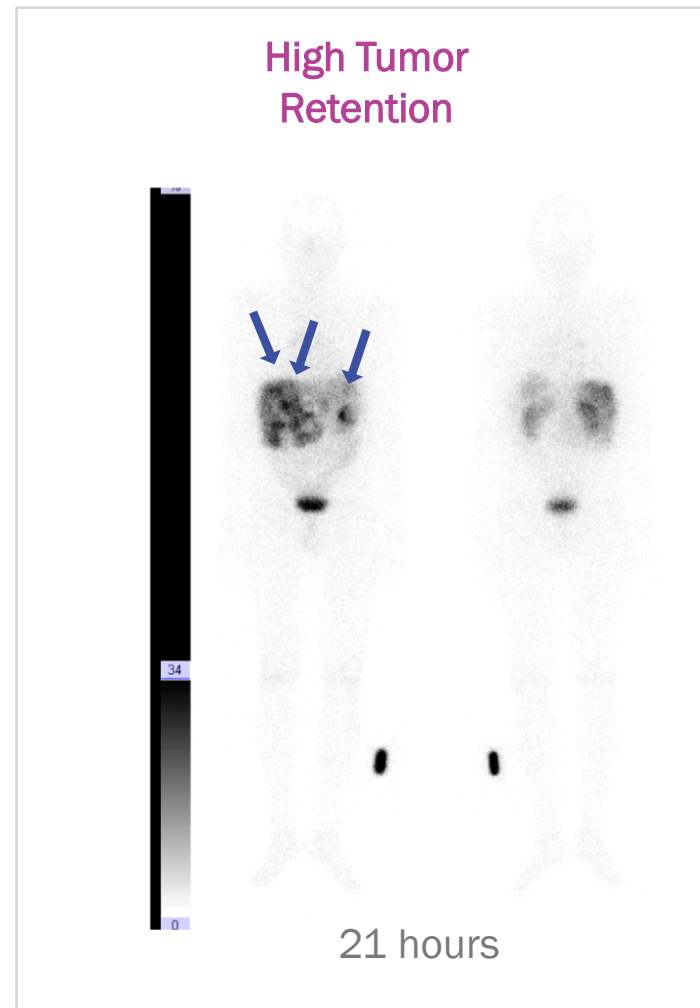
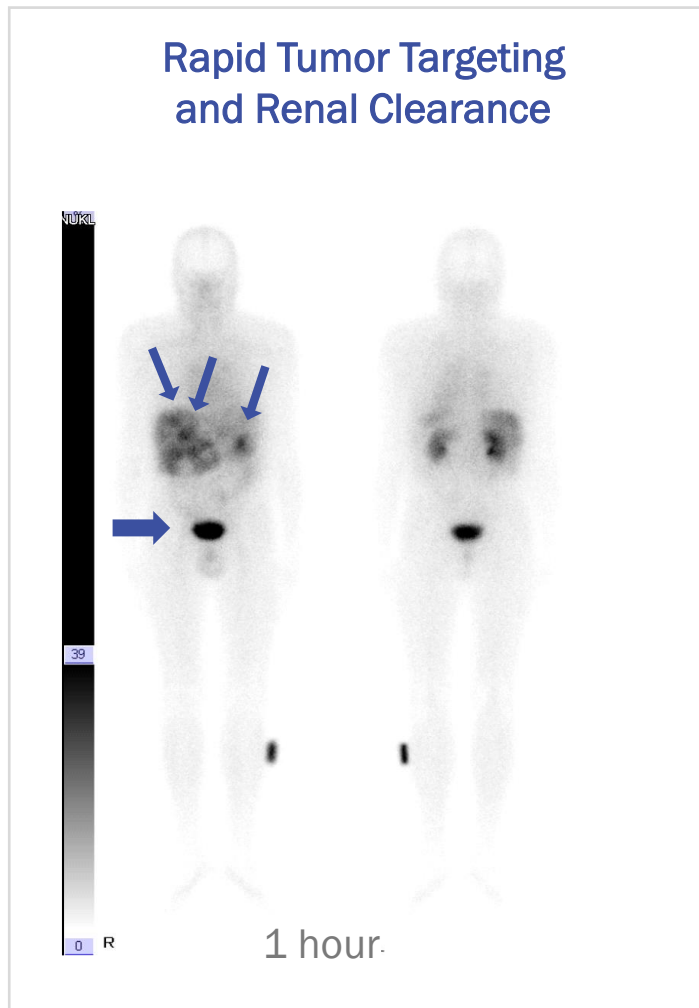


VMT- α -NET Shows Significant Improvement vs Standard of Care in Preclinical Models

Superior Efficacy with Single Dose or Multiple Administrations in AR42J SSTR2-Expressing Tumor



^{203}Pb SPECT Imaging Reveals Favorable VMT- α -NET Properties¹

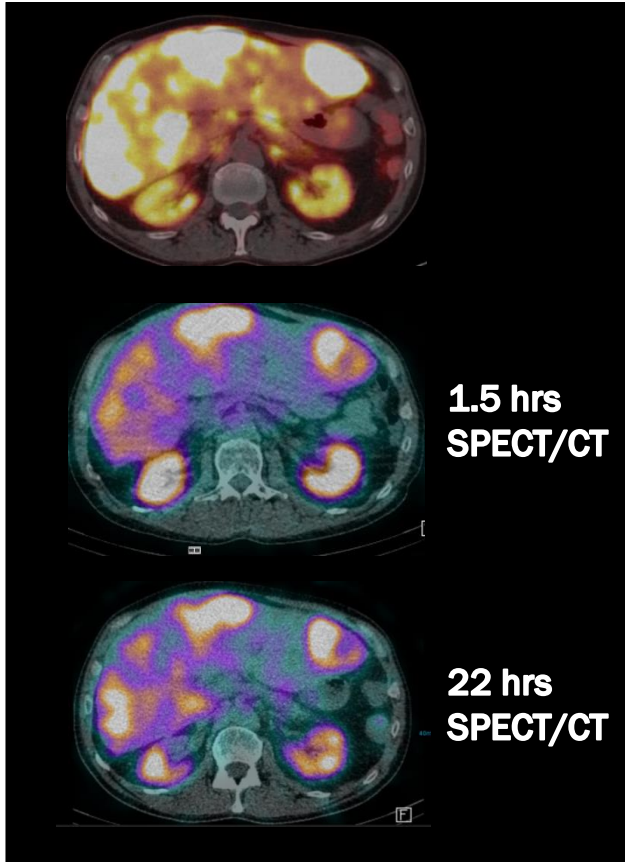


- Tumors visible within 1 hour indicates rapid binding to SSTR2 target
- High intensity above background implies excellent therapeutic window
- Unbound drug in bladder within 1 hour for excretion
- Low renal retention due to neutral charge on proprietary Pb-specific chelator

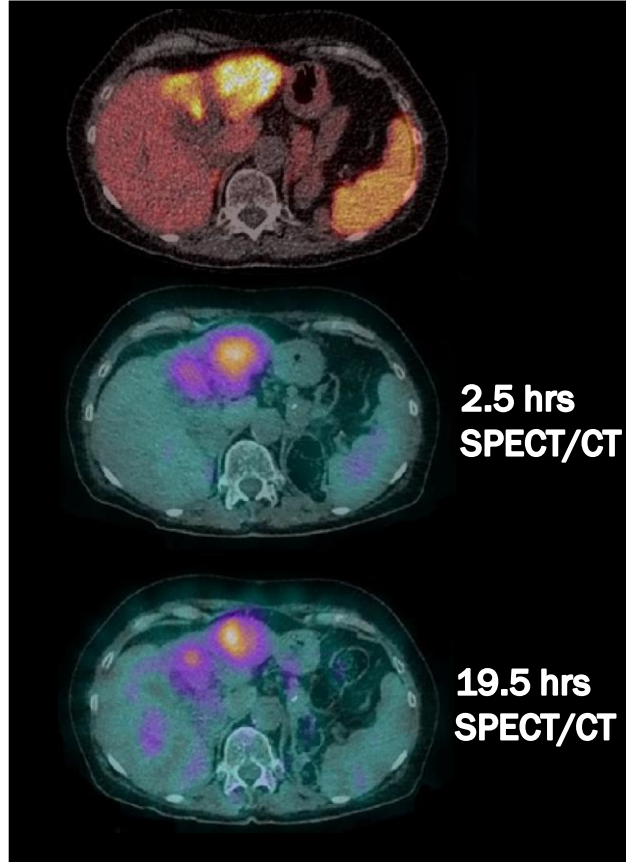
^{212}Pb SPECT/CT Imaging Confirms VMT- α -NET Tumor Uptake

Diagnostic and Therapeutic Show Same Uptake and Retention Characteristics

^{203}Pb SPECT/CT Imaging¹
Pt#001



^{212}Pb SPECT/CT Imaging²
Pt#009



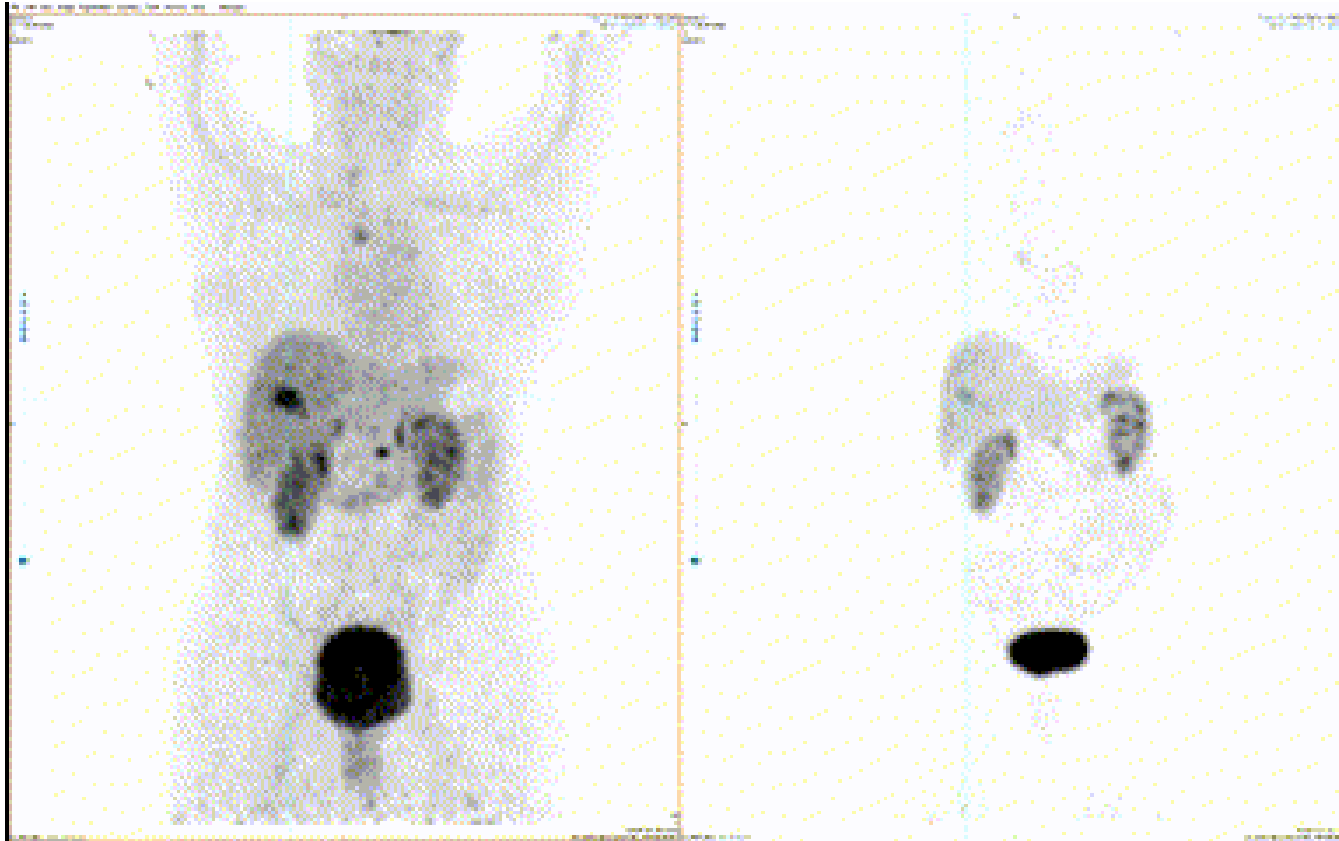
- Both ^{203}Pb and ^{212}Pb can be imaged directly using SPECT
- SPECT/CT shows very rapid tumor uptake and retention of [^{212}Pb]VMT- α -NET
- After 24 hours more than 80% of alpha particles will be generated
- This high alpha dose rate is ideally matched to the biological clearance of the VMT- α -NET peptide

Significant Response After Single Dose of [^{212}Pb]VMT- α -NET

Metastatic NET Pancreas with Adrenal Crisis – Maximum Intensity Projection (MIP)

Tumor Before Treatment

Tumor After 1 Dose

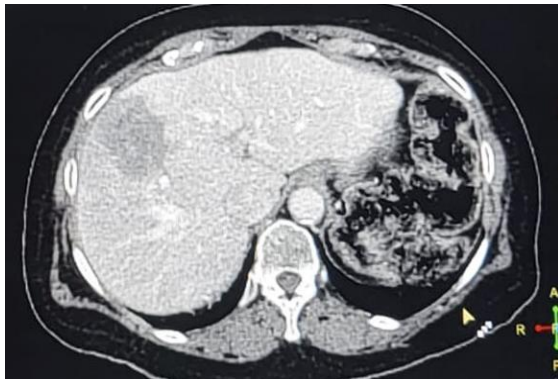


- ^{68}Ga -DOTA-NOC PET images at base line and post 1st dose of [^{212}Pb]VMT- α -NET
- MIP suggesting strong reduction of intensity (thoracic lesions) and decreasing tumor volume (Partial Response)

Significant Response After Single Dose, Almost Complete Response After 3 Doses

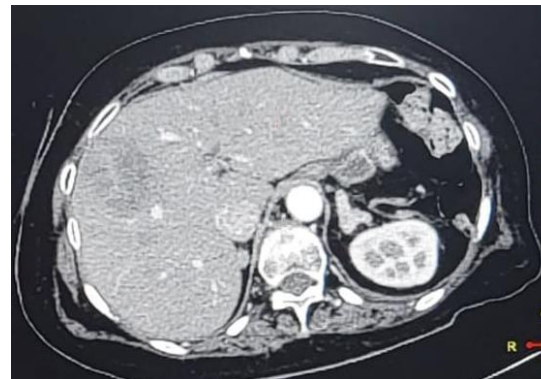
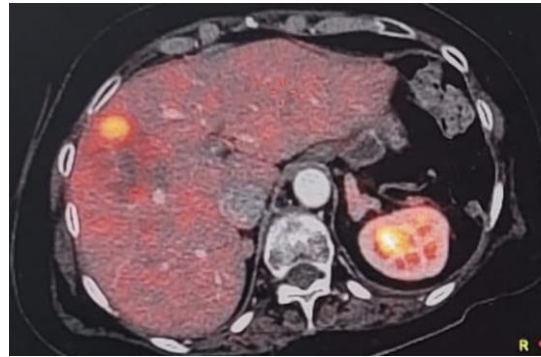
Metastatic NET Pancreas with Adrenal Crisis

Tumor Before Treatment



(S.ACTH)¹– 790 pg/ml

Tumor After 1 Dose



Tumor After 3 Doses



S.ACTH – 96 pg/ml



Treating Physician:

Dr. Ishita B Sen
Director & Head
Dept. of Nuclear Med.
& Molecular Imaging
Fortis Memorial Research
Institute, Gurgaon, India

Clinical Investigation of [^{212}Pb]VMT- α -NET in Metastatic SSTR2 Positive Patients

Interim Results as of September 28, 2023, for Ongoing Investigation in India

Current Status

- Patients with prior lines of therapy, late-stage, anatomically different NETs (mean age: 48 years; 4 females)
- 10 patients administered [^{212}Pb]VMT- α -NET
- 7/10 patients continuing on therapy
- 1 patient completed 4x treatments
- 2 patients discontinued due to progressive disease
- 25 total [^{212}Pb] VMT- α -NET doses administered to date

Response

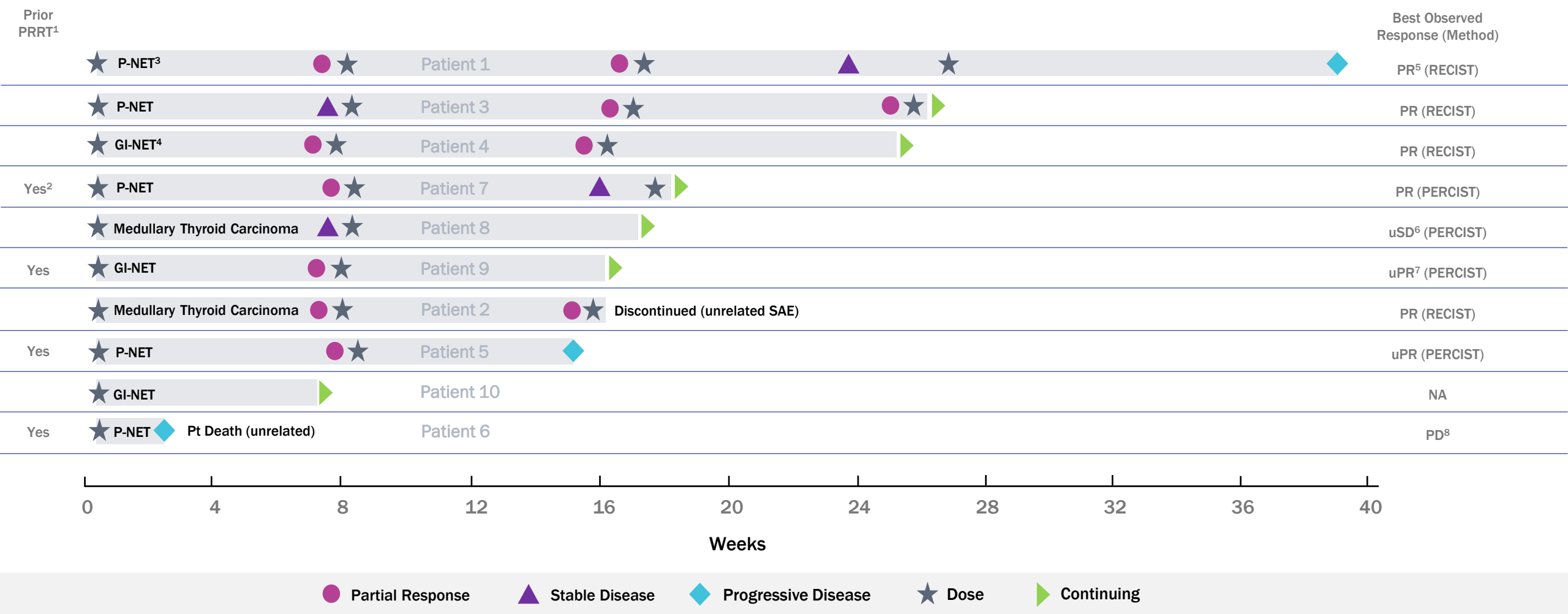
- Response (radiological or biochemical) is seen in 8/10 patients
- Death: 1/10 (not drug related)
- Awaiting Evaluation: 1
- Quality of Life (EORTC QLQ–GLNET21 Score) trending positively

Safety

- No significant renal or hepatic function derangement to date
- Mild Adverse Effects:
 - Grade I Anemias
 - Alopecia
 - Fatigue – usually up to 1 week after administration
- 2 SAEs (unrelated to study drug):
 - Acute Cardiac Event in 25-year-old pNET patient (heavily pretreated)
 - Myelodysplastic Syndrome (MDS) in 79-year-old Medullary Thyroid Carcinoma patient (found positive for BCR-ABL gene)

High Partial Response Rate at Starting Dose in Patients with SSTR+, Late-Stage NETs

Interim Results as of September 28, 2023, for Ongoing Clinical Investigation Program in India



¹ 4 x [¹⁷⁷Lu]DOTATATE
² 4 x [¹⁷⁷Lu]DOTATATE plus 3 x [²²⁵Ac]DOTATATE
³ Pancreatic NET
⁴ Gastro-intestinal NET

⁵ Partial Response
⁶ unconfirmed Stable Disease
⁷ unconfirmed Partial Response
⁸ Progressive Disease

Trial Design: [²¹²Pb]VMT-α-NET mTPI-2¹ Phase 1/2a For Neuroendocrine Tumors

Primary Objective: To determine the MTD/MFD of [²¹²Pb]VMT-α-NET (RP2D)

Population: Escalation n ≈ 10-32
Expansion n ≈ 20 – 100
Unresectable or metastatic SSTR2-positive NETs
PRRT naïve

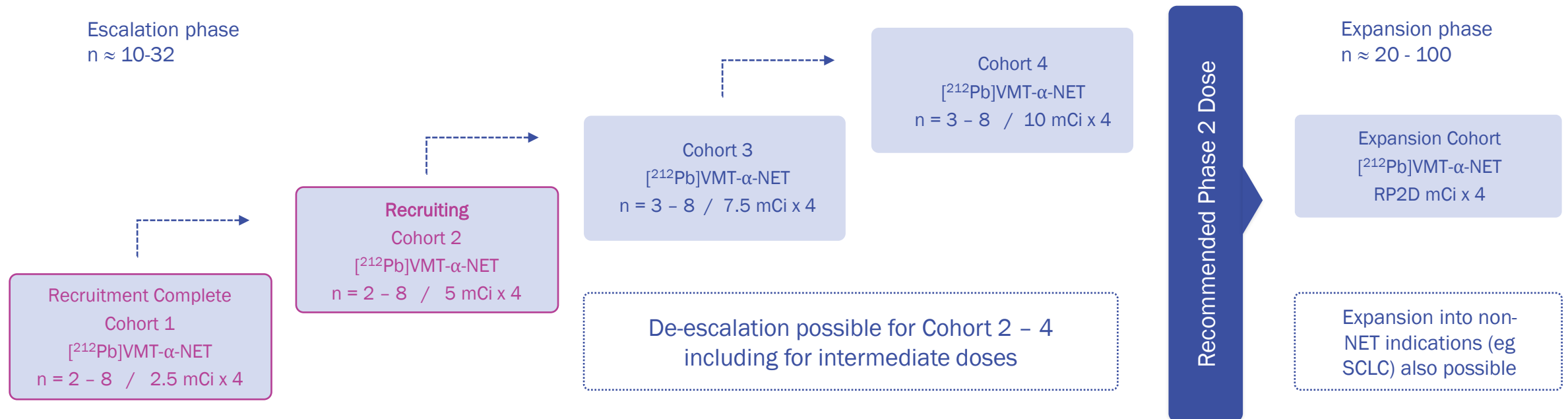
Design Methodology: Bayesian mTPI2 based on iterative toxicity probability monitoring

Imaging: FDA approved SSTR2 PET/CT

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

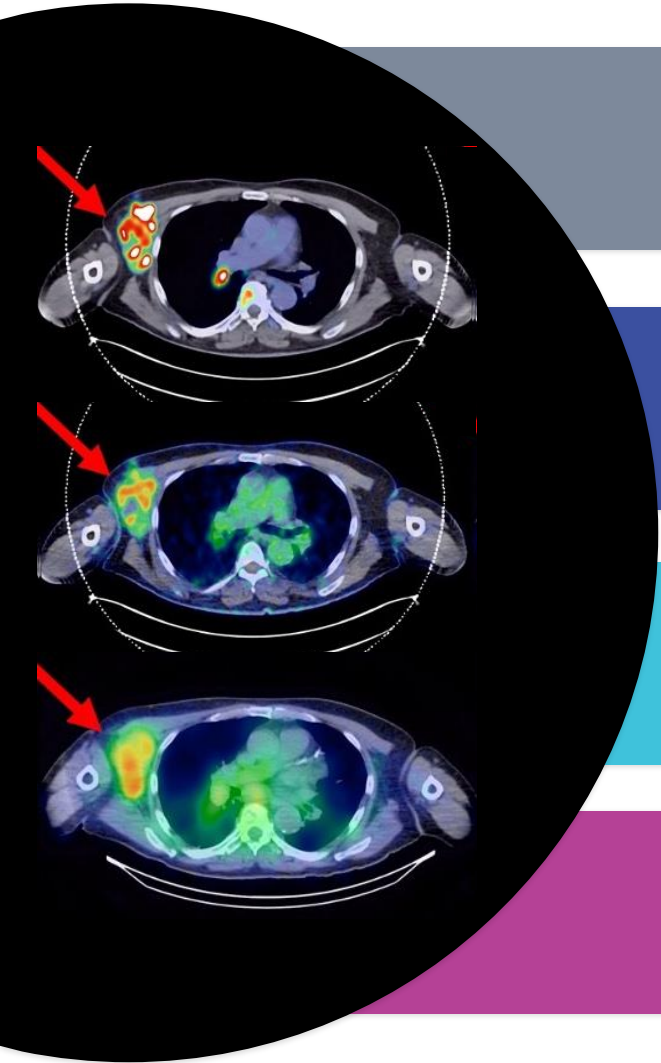
Dosimetry: To be assessed during screening for cohorts 1 & 2 using 5-7 mCi [²⁰³Pb]VMT-α-NET



Melanoma Program: VMT01/02

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

VMT01 Currently In Phase1/2a Studies: Key Facts



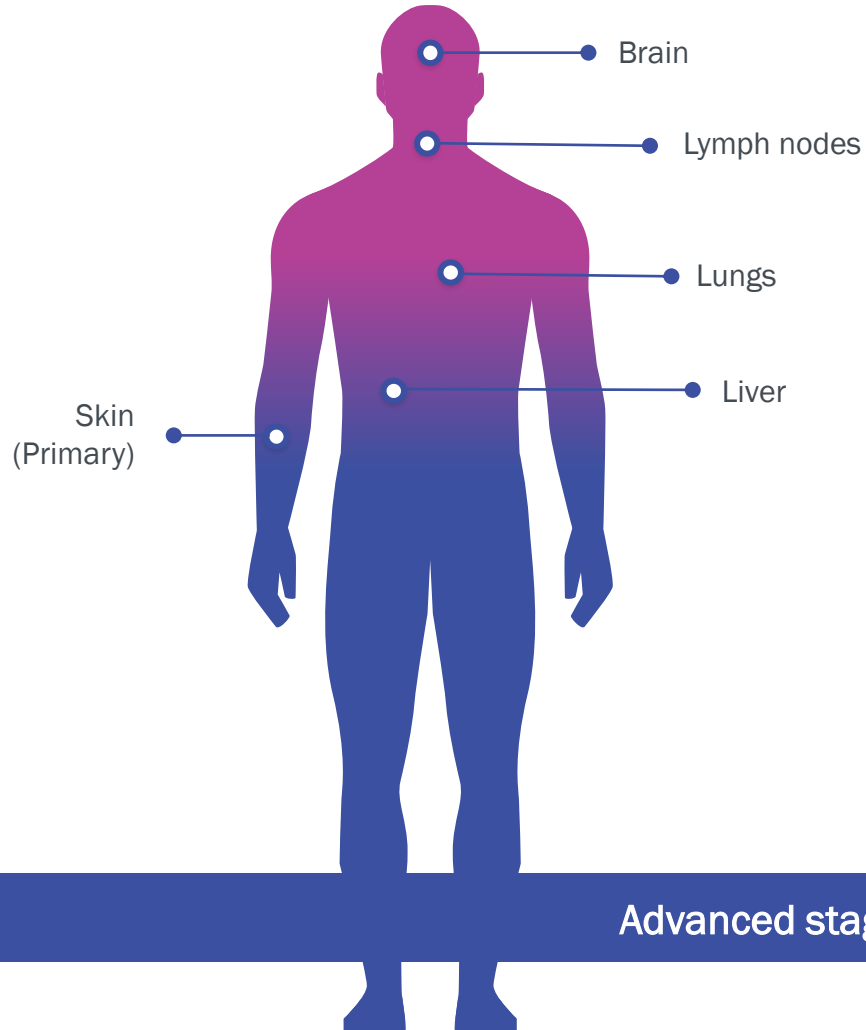
Targeting melanocortin 1 receptor (MC1R)

Preclinical combination data (published) resulted in \$2m NIH SBIR Grant

Results from completed Phase 1 imaging study presented in Q2 2023
Study was conducted at the Mayo Clinic Rochester

Open IND for Therapeutic Trial with first patient treated
Expected to Receive Orphan Drug Designation and Fast Track Application

Metastatic Melanoma



[²¹²Pb]VMT01 target indication:

MC1R-positive melanoma

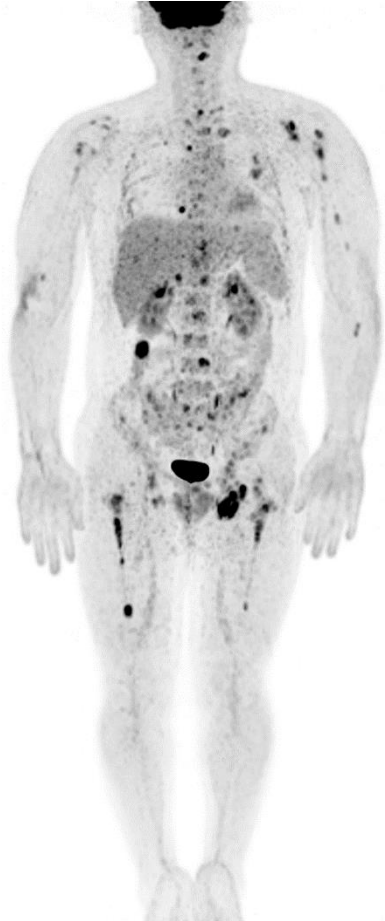
- Projected market opportunity for melanoma of \$8 billion+ in 2028¹
- Significant unmet need in the U.S.:
 - ~100K new diagnoses annually²
 - ~8,000 people die from melanoma every year²
- Treatment depends on the stage of tumor
- Approaches may include surgery, radiation, chemotherapy and immunotherapy
- 5-year survival rate for metastatic melanoma is only 22.5%³

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

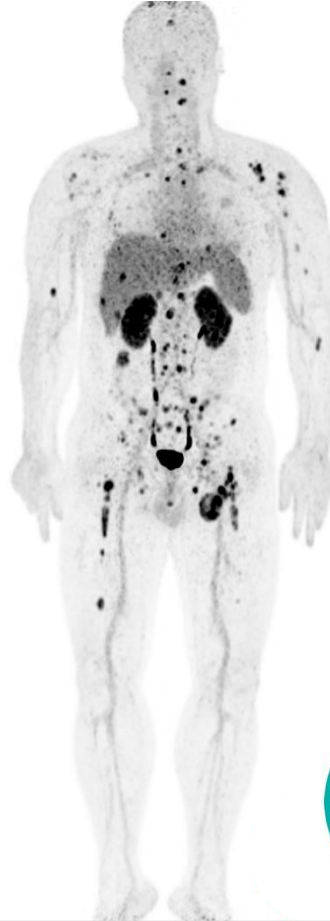
[⁶⁸Ga]VMT02 PET Imaging in Patient with MC1R Positive Metastatic Melanoma

Diagnostic Peptide Demonstrates Similar Uptake to FDG in Tumors

¹⁸F-FDG (Standard of Care)



[⁶⁸Ga]VMT02



Patient information:

- Male, Asian, 33 years old
- [⁶⁸Ga]VMT02: 7 mCi injection, 45 min post-injection imaging

Clinical Collaborator:

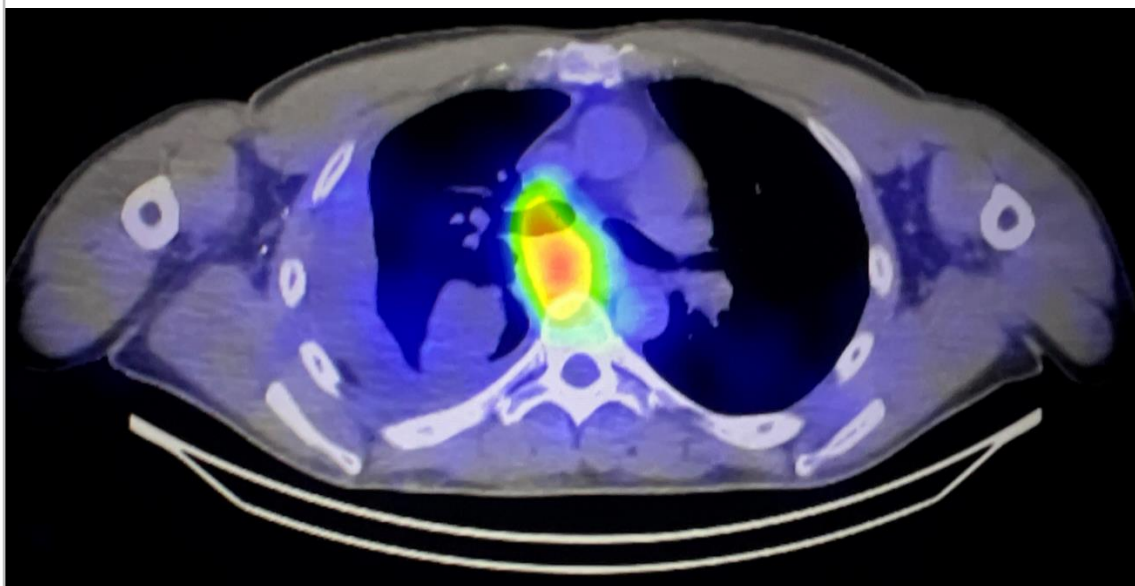
Xiaowei Ma, M.D., Ph.D.
Assoc. Prof. & Director
Department of Nuclear Med.
The Second Xiangya Hospital
Central South University
China



Combination Targeted Alpha Particle Therapy & Immunotherapy

Targeting MC1R Positive Melanoma

High intensity uptake of [^{203}Pb]VMT01 in esophageal metastatic site



[^{203}Pb]VMT01 SPECT/CT¹

Combination with Standard of Care Immunotherapy

- Ionizing radiation is an inducer of immunogenic cell death²
- Due to their destructive nature, alpha particles are particularly good at generating neoantigens for immuno-sensitization³
- In melanoma, immune checkpoint inhibitors (ICIs) have revolutionized treatment, but the majority of patients are non-responsive⁴
- MC1R-targeted alpha particles might synergize with existing SoC ICIs

In melanoma, the combination of targeted alpha therapy and ICIs is very compelling

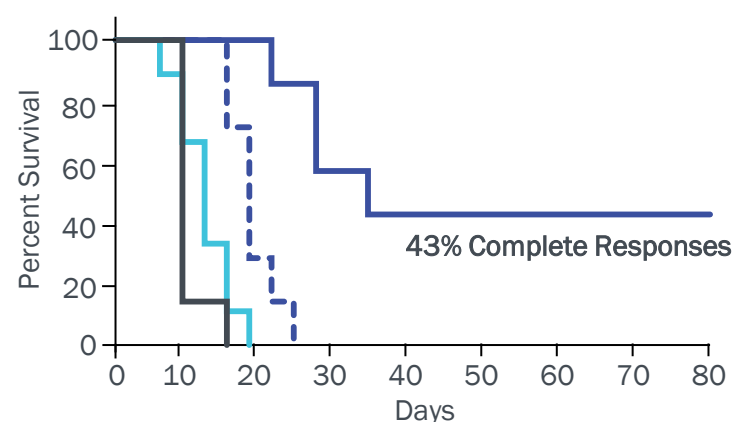
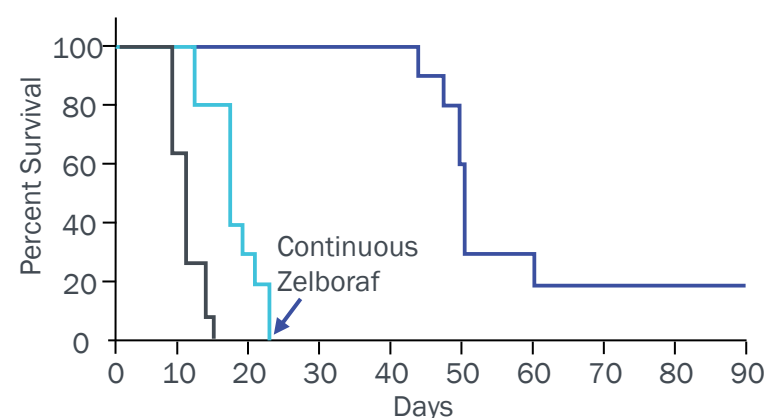
[²¹²Pb]VMT01 in Combination Demonstrates Synergistic Responses

Multiple Melanoma Tumor Models Show Promise of Combining with Standard of Care

Key Takeaways

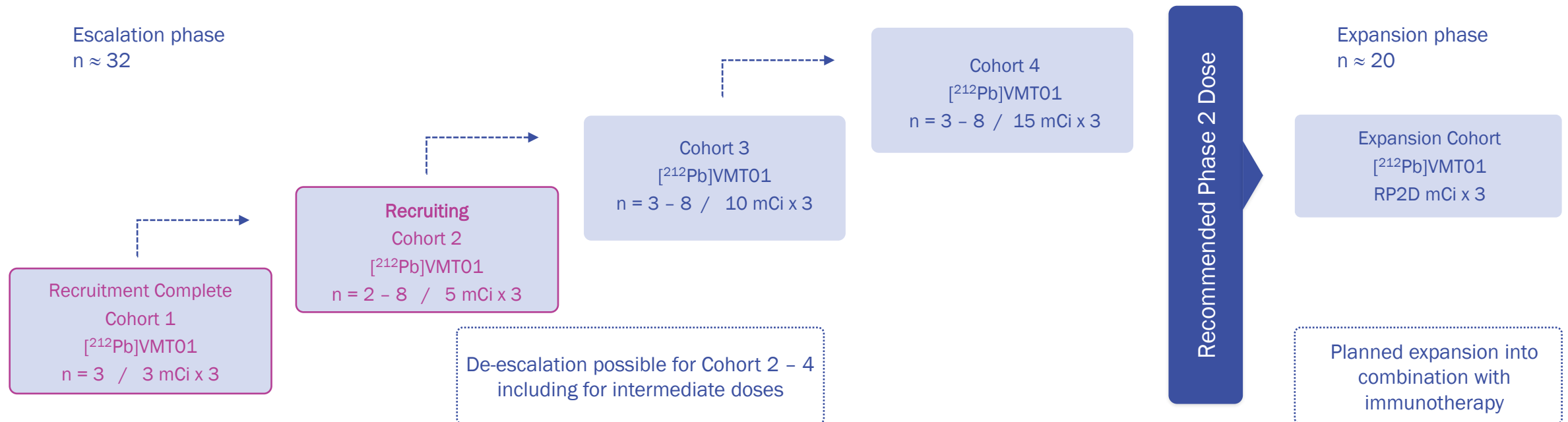
- High response rates in multiple tested models
- 43% complete and durable response if combined with immunotherapy in a model highly resistant to checkpoint inhibitors¹
- Combination with immune checkpoint inhibitors induced synergistic anti-tumor effect

Single dose of VMT01 in combination significantly arrested melanoma tumor growth and extended survival^{1,2}



Trial Design: [²¹²Pb]VMT01-T101 mTPI1 Phase 1/2a For Metastatic Melanoma

Primary Objective:	To determine the MTD/MFD of [²¹² Pb]VMT01 (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
Design Methodology:	Bayesian mTPI2 based on iterative toxicity probability monitoring	Estimated Time to Primary Completion:	~18 months
		Dosimetry:	To be assessed using 15 - 25 mCi therapeutic surrogate [²⁰³ Pb]VMT01

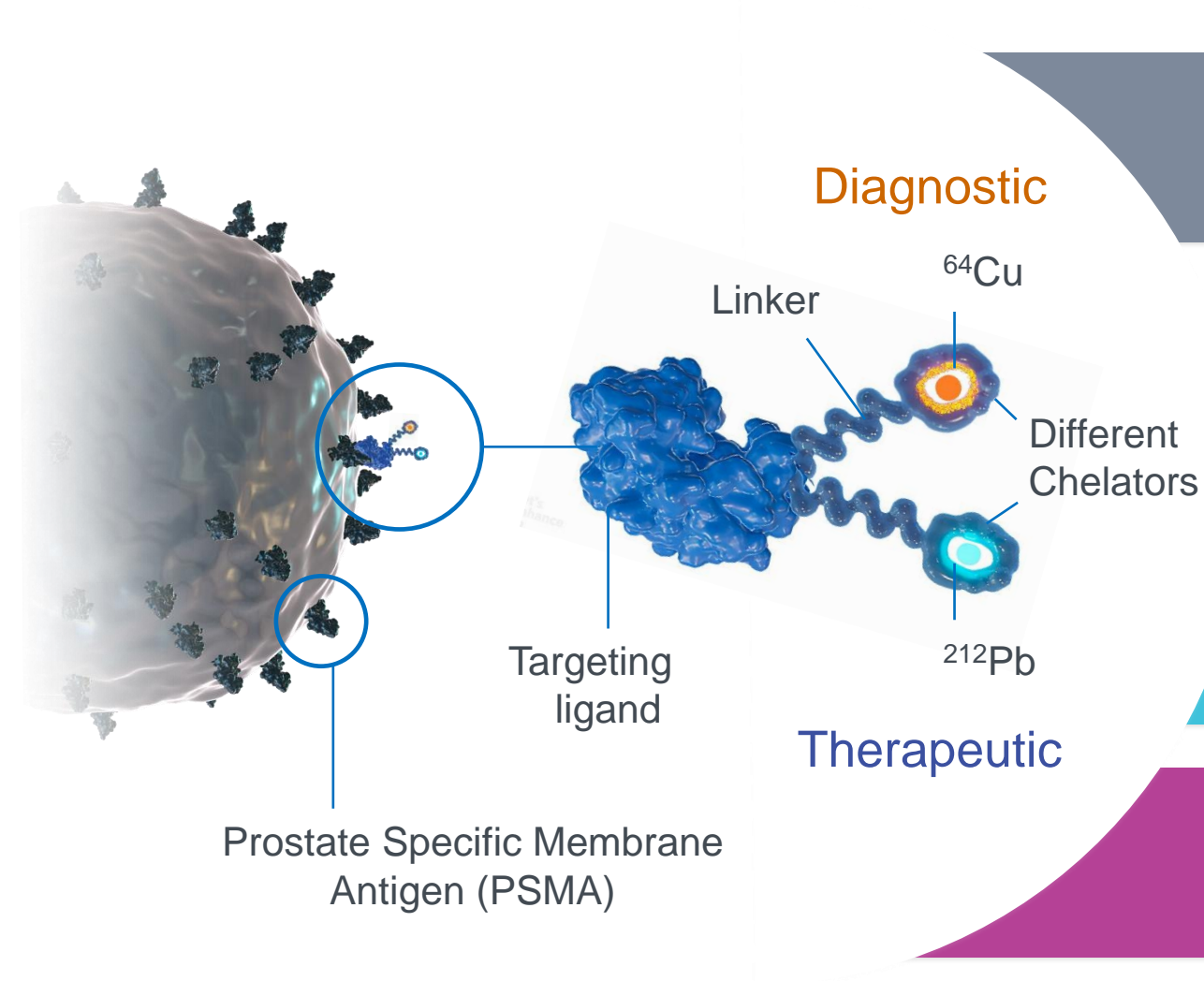


Prostate Cancer Program: PSV401

A differentiated PSMA-targeted radiohybrid molecule for dual PET imaging and targeted alpha therapy

Prostate Cancer Program: PSV401

A differentiated PSMA-targeted radiohybrid molecule for dual PET imaging and targeted alpha therapy



PSMA is a clinically and commercially validated target for radioligand therapy

Combines two chelators with single targeting ligand to provide identical distribution of imaging and therapeutic

Has shown promise in reduction of salivary gland uptake in preclinical models of prostate cancer¹

Technology Licensed from Mayo Clinic January 2024
IND-enabling studies underway
First in Human data expected in 2024

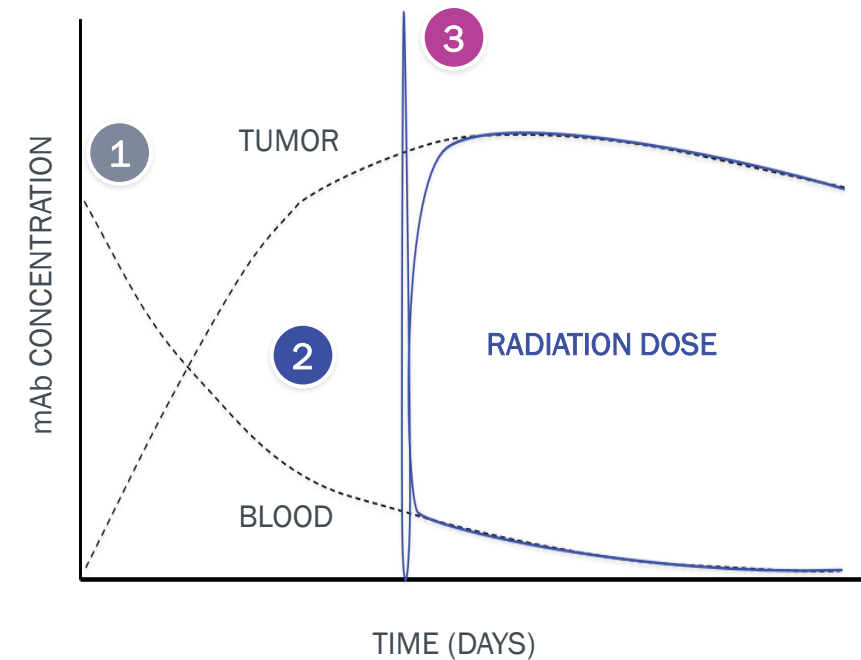
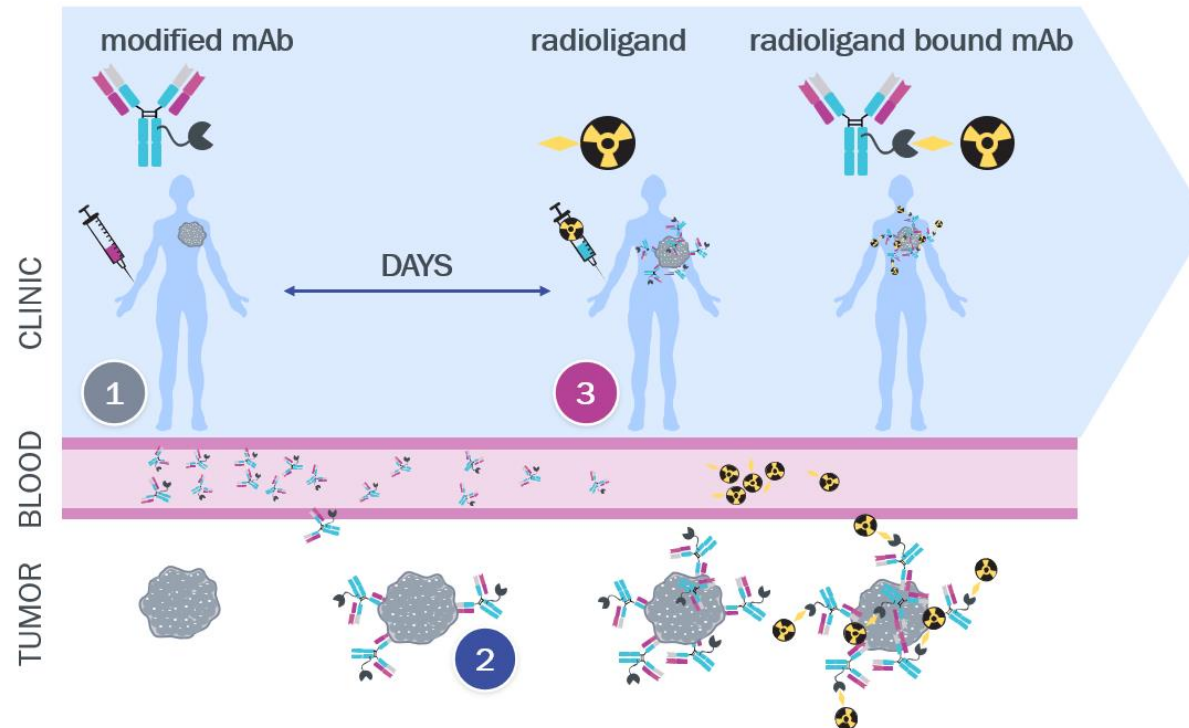
Pre-Targeting Platform

The Next Generation of Targeted Alpha Particle
Radiopharmaceuticals

Pre-Targeting Platform Background

Relies on the different kinetics of large proteins and small molecules and a multi-step process

- 1 Administer cold modified monoclonal antibody or targeting protein
- 2 After several days, mAb will have accumulated on tumor and cleared from blood
- 3 Administer radiolabeled ligand, which binds specifically to mAb and clears rapidly from circulation






Manufacturing, Production and Logistics of ^{212}Pb -labeled Therapeutics

The Path to Commercial Supply

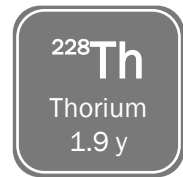
^{212}Pb is Plentiful, Storable, Scalable & Suitable for Distributed Logistics

The supply chain is lower-risk and more robust than other therapeutic isotopes

Isotope Source	Isotope Purification	Product Manufacturing
 <p>Naturally occurring in mining waste Also produced in industrial nuclear processes Can be made on demand if needed</p>	 <p>Parent isotope Thorium-228 can be stored (2 yr half-life) ^{212}Pb purified from ^{228}Th or ^{224}Ra source in simple separation step</p>	 <p>VMT-α-GEN ^{212}Pb generator technology scales for commercial production Extremely pure isotope allows straight forward manufacturing process</p>
All other therapeutic isotopes require capital-intensive infrastructure manufacturing processes (irradiation)	VMT- α -GEN enables shipping of isotope and purification of ^{212}Pb in one package	10.5 hr half life of ^{212}Pb allows for robust regional distribution of finished radiopharmaceuticals

Isotope Decay Chain Dictates Supply, Purification, Manufacturing & Logistics

Naturally Occurring Isotope Decay – No Irradiation Processes Required



Plentiful Supply:
Naturally occurring, or
produced as a waste product



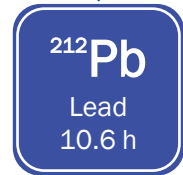
- Multiple global suppliers including natural decay
- 2 year half-life allows stockpiling



Chemical Separation:
Allows for Ra-based
generators of ^{212}Pb



- Half-life allows global distribution
- Weekly delivery of ^{224}Ra enables daily ^{212}Pb
- 3.6 day half-life allows local stockpiling



Chemical Separation from ^{224}Ra :
Isotope used for manufacturing
finished product



- Regional finished product manufacture
- Leverages existing networks for logistics



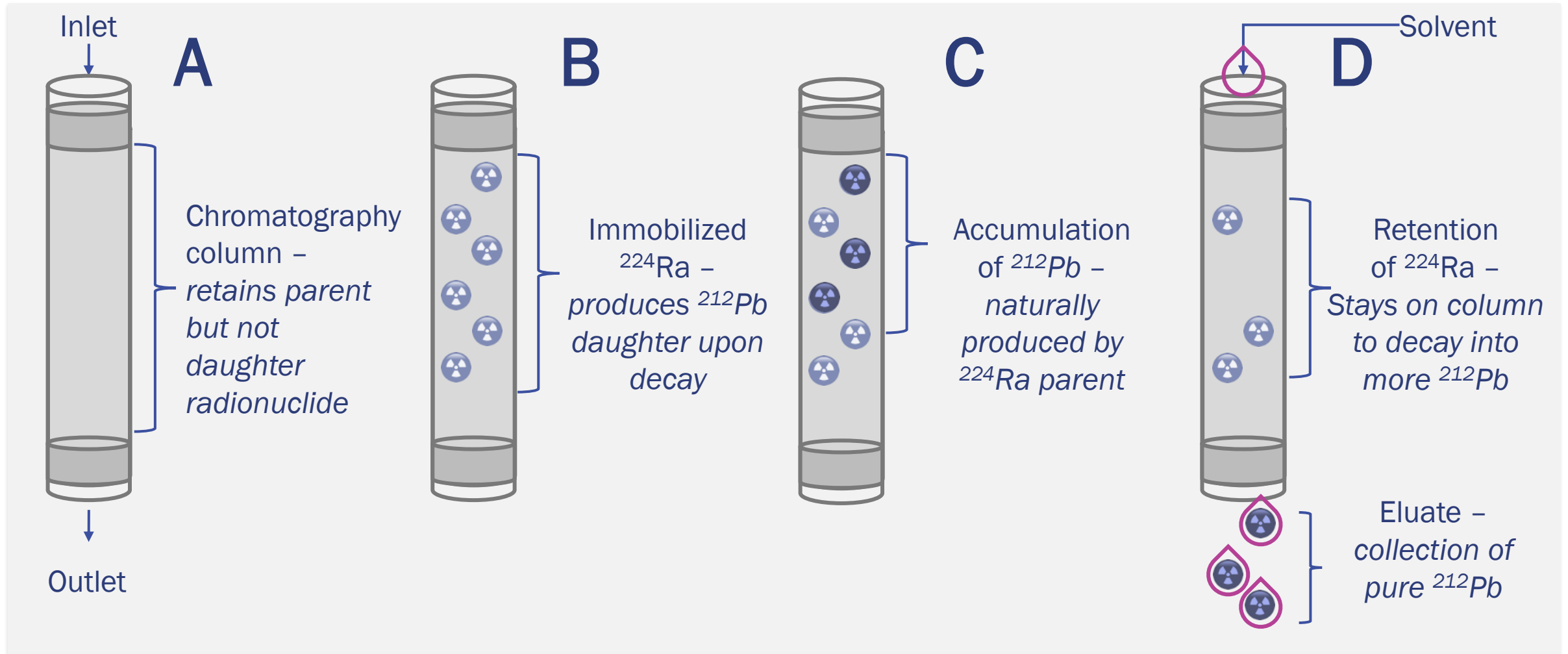
High dose-rate alpha-emitting
therapeutic isotope



- ^{212}Pb acts as *in vivo* “nanogenerator” of alphas
- Perspective’s chelator retains ^{212}Bi in drug

^{212}Pb Isotope Purification Without Just-in-time Irradiation

Simple chemical separation technology of natural decay products de-risks supply chain



^{212}Pb Supply via Reusable Desktop Isotope Generator



VMT- α -GEN

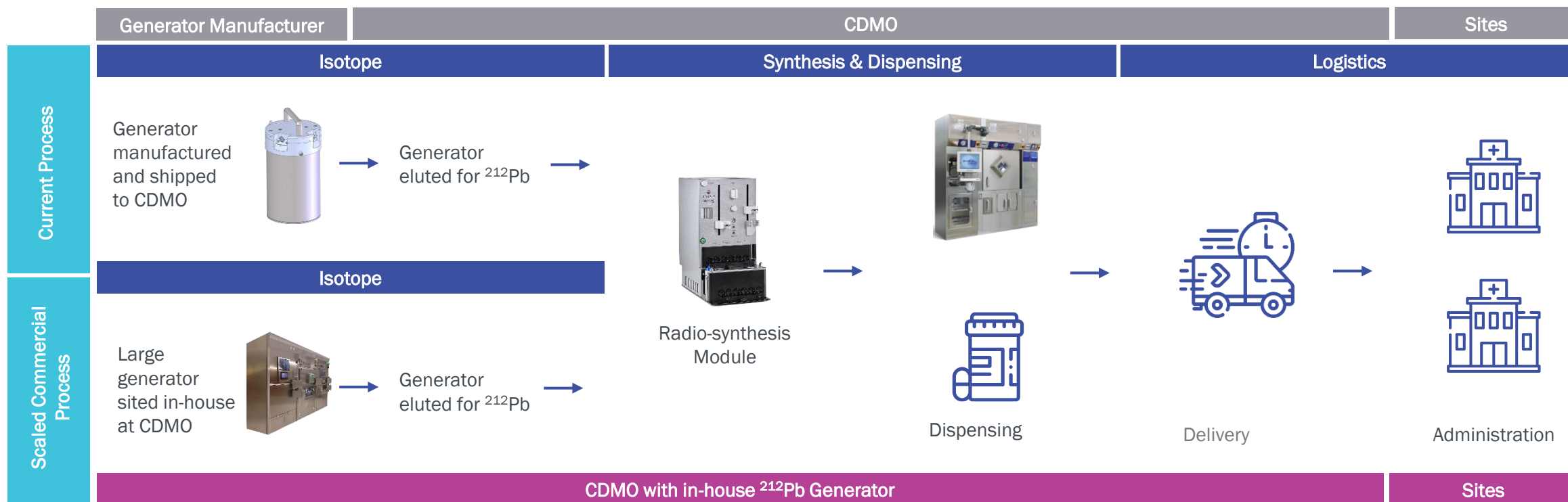
- Extensive feedstock from nuclear and mining waste material
- Long-term supply contract secured with US DOE
- On demand daily doses
 - Auto-regenerates overnight
 - ~1 week shelf life

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

Scalable Manufacturing and Distribution Logistics

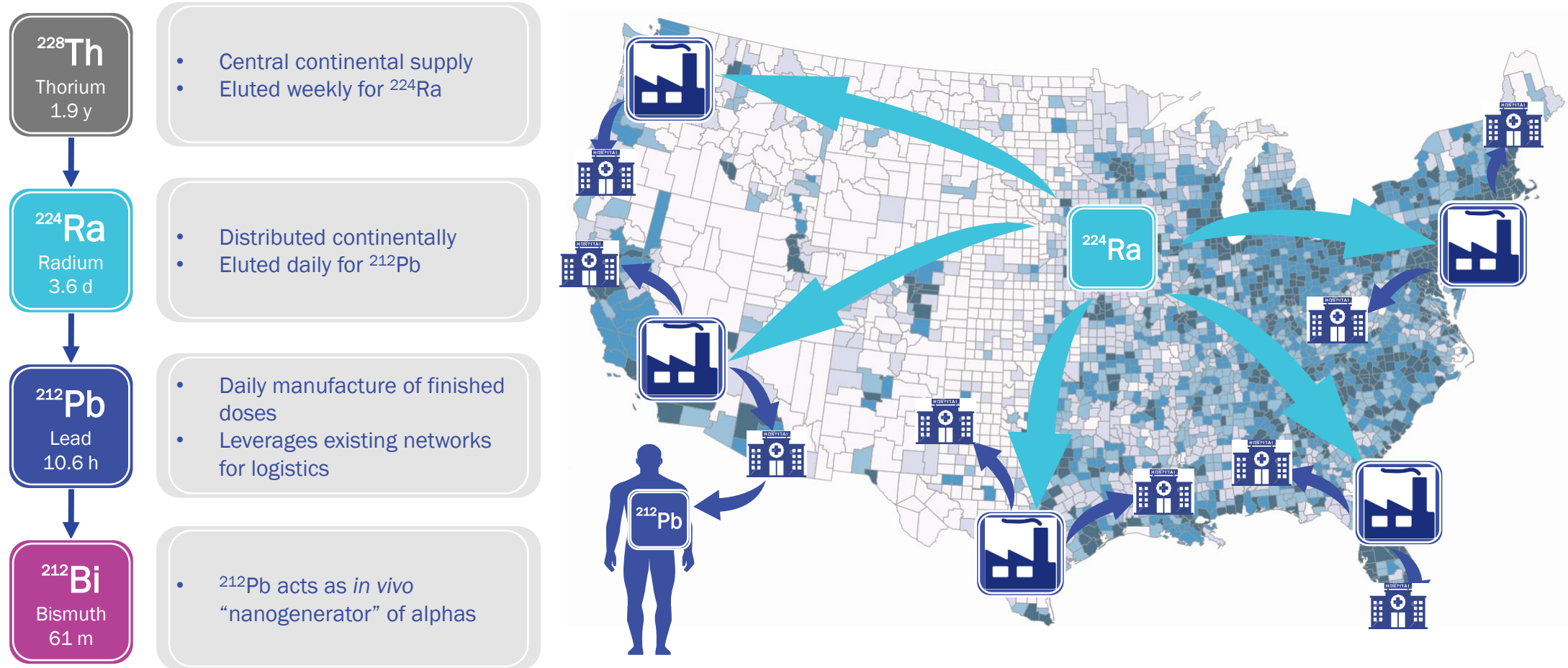
Perspective's plan to flexibly scale manufacturing to commercial levels (100,000+ doses per year)



- Commercial supply will require the use of an isotope production system of larger scale than the current $^{224}\text{Ra}/^{212}\text{Pb}$ generators
- The current isotope separation process remains highly scalable with larger activity levels
- Regional CDMOs will have capabilities to expand capacity as needed as more ^{212}Pb products come on-line

Isotope Decay Chain Dictates Supply, Purification, Manufacturing & Logistics

Naturally Occurring Isotope Decay – No Irradiation Processes Required



Infrastructure and Distribution Networks for Radiopharmaceuticals are Mature

Existing radiopharmacies have established logistics for distributed supply

Map of US Radiopharmacies¹



- There were 40+ million diagnostic nuclear medicine procedures performed in the US in 2022
- Multiple networks exist in a competitive environment of 300+ radiopharmacies
- Distribution logistics are mature and well-developed
- Many of these diagnostic products have much shorter half-lives than ^{212}Pb
- Radiopharmaceutical revenues are expected to reach between \$14 and \$33 billion by 2031, driven by therapeutics

The technology, infrastructure, logistics, market, clinical demand, and regulatory pathways for Perspective's products are mature/growing and will be ready for scaled commercial production and distribution of ^{212}Pb -based radiotherapeutics

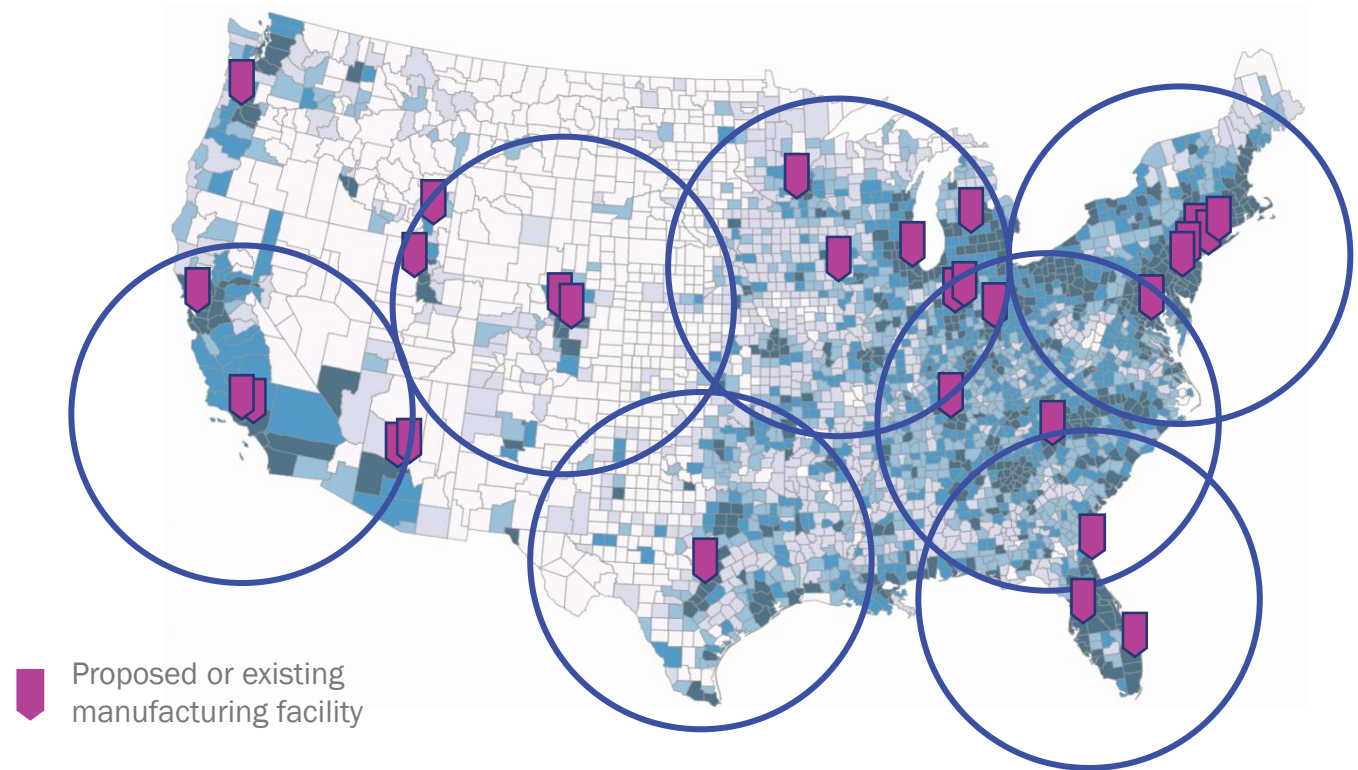
Regional Manufacturing Allows Commercialization of ^{212}Pb -labeled Finished Products

Limited number of sites allows for “network effect” to ensure robust supply chain

Location	Radius 11 hr – 400 miles
Coralville, IA	51 m
New York, NY	75 m
Los Angeles, CA	46 m
Austin, TX	32 m
Atlanta, GA	57 m
Central Florida, FL	25 m

Top 6 sites cover nearly 300 million people within a one half-life (11 hr) delivery radius¹

Products can also be driven further or flown as necessary



Circles represent distribution radii for facilities already producing Perspective products or scheduled to produce within next 18 months

Strong Intellectual Property Portfolio

Fully Licensed University/Perspective-owned IP

4 provisional patents

- Composition of Matter and Use radiometal separations technology, novel pan-cancer product , generator technologies (U.S., E.U., Australia)

3 non-provisional patent applications

- Composition of Matter and Use VMT- α -NET, chelator, and novel pan-cancer product (U.S., E.U., Australia)

2 issued patents - Expiry in 2037

- Composition of matter and use on melanoma targeting peptides (U.S.) including VMT01/02 and Pb-Specific-Chelator (PSC) (U.S., E.U., Australia)



IP Portfolio covers all aspects of radiopharmaceutical value chain



Potential for Orphan Drug Designation



Potential for U.S. FDA Priority Review Voucher: VMT- α -NET is a candidate for pediatric neuroblastoma indication

The background features a horizontal split. The top half is white, and the bottom half is a solid dark blue. Overlaid on this are several large, overlapping circles. One circle is light gray and spans across the white and blue sections. Another circle is white and is positioned in the upper right. A third circle is a medium blue and is located in the lower right. The word "Appendix" is written in white, bold, sans-serif font in the lower-left area of the blue section.

Appendix



Our Mission

Treating cancer from the inside out

We are developing game-changing *Precision Medicine Therapeutics* which harness the power of targeted *Alpha-Particle Radiotherapies* that make an impactful difference for cancer patients and the clinicians who treat them.

Who We Are

Perspective Therapeutics (NYSE:CATX) is a clinical stage **precision medicine company**, debuting as a public company in 2023.

With a broad pipeline and **two prioritized lead programs** in clinic, we are disrupting traditional radiation therapy treatment for cancer through developing a new class of ***image guided alpha-particle radiotherapies*** treatments for the most challenging cancers. With an initial focus on **neuroendocrine tumors (NETs)** and **metastatic melanoma**, we have a robust discovery platform to advance our pipeline into the clinic further.

Perspective's **personalized theranostic approach** arms physicians with companion imaging diagnostics, capturing personalized information about a patient's cancer in the process which can then be used to guide precise radiation therapy, killing cancers from the inside out.

Perspective's core technology hinges on **alpha (α) particle radiation** which deliver large amounts of radioactive energy very specifically to tumors, irreparably damaging DNA and reliably killing the targeted tumor cells.

We believe the use of alpha-particles provides numerous benefits over currently used beta-particle radiotherapies. Alpha-particles generate **more energy** and travel a shorter distance compared to beta-particles, making them **more cytotoxic**, while reducing their effects on healthy tissue.

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

More Powerful Effects Than Approved β Therapy

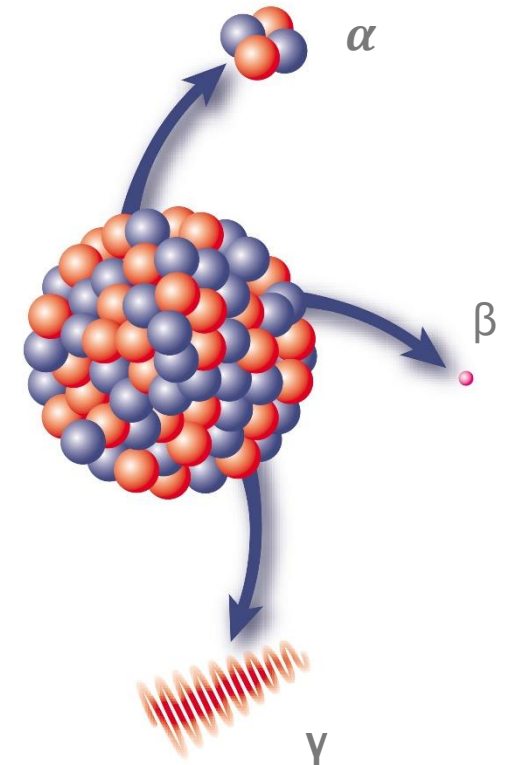
Higher atomic mass
Lethal double-stranded DNA breaks
DNA repair mechanisms overwhelmed

Precision Delivery Provides Targeted Cell Destruction

Deposit energy over 3-5 cell diameters vs. beta particles (up to 200 cells)

Anti-Tumor Immune Response¹

Evidence for antitumor response alone or in combination with immunotherapies
Consistent with “Abscopal effect” observed with external beam radiation therapy



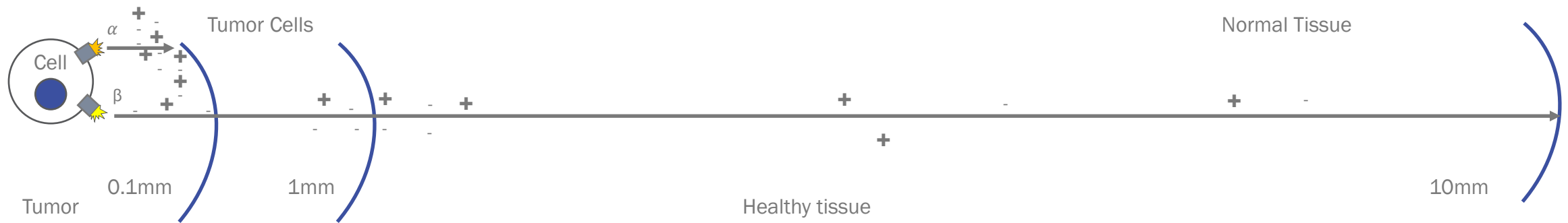
α -particles are >7,000-fold greater in atomic mass

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

Greater Therapeutic Energy Expected to Improve Outcome with Better Safety

Alpha particle range (up to 3 cell diameters)

Beta range (up to 200 cell diameters)



The destructive energy of an alpha particle is deposited within several cell diameters.
A beta particle spreads its lower energy over a longer range

Lead (Pb): The Ideal Theranostic Isotope

Ideal Theranostic Requirements

Solutions: ^{203}Pb and ^{212}Pb & Perspective Chelator

Ideal agreement between imaging and therapeutic compounds

^{203}Pb and ^{212}Pb matched pair

Readily available isotope

Generator produced

Ideal chelator

Proprietary chelator carries 0 net charge

Rapid clearance from blood

Conjugation to small peptides

High tumor retention @24 hours

High and sustained binding

Short $t_{1/2}$ gives rapid effect while minimizing environmental impact

Low hospital and patient impact for radiation safety

No unsafe daughter isotopes

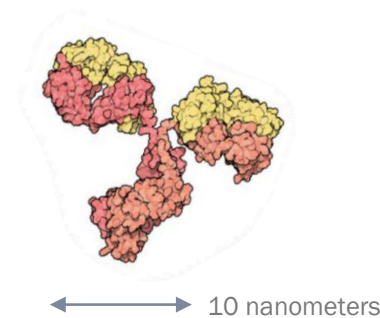
Decays to cold Pb

Peptides are Ideal Ligands for Radiopharmaceutical Therapy

Monoclonal antibodies

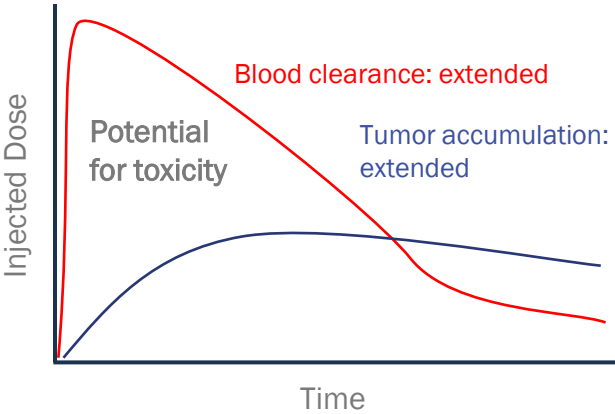
Kinetics	
Tumor penetration:	Low
Clearance:	Hepatobiliary (liver)
Biological $\frac{1}{2}$ Life	Long
Target affinity	High
Accumulation time:	Extended
Stability	Questionable

Production	
Manufacturing:	Complex biological
CoGs:	High



mAb Size: 150 kDa

mAb Kinetics



Peptides

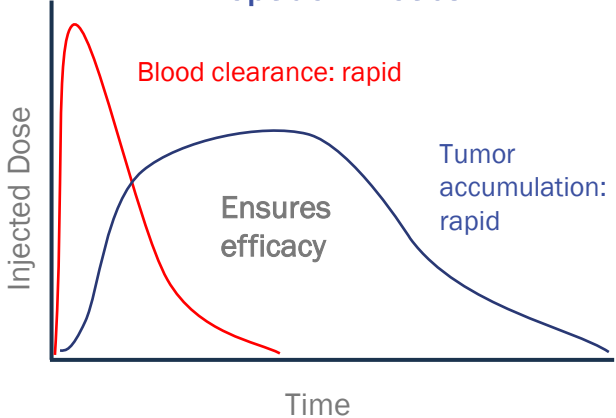
Kinetics	
Tumor penetration:	High
Clearance:	Renal (kidneys)
Biological $\frac{1}{2}$ Life	Short
Target affinity	High
Accumulation time:	Rapid
Stability	Excellent

Production	
Manufacturing:	Synthetic
CoGs:	Very low



Peptide Size: 1.5 kDa

Peptide Kinetics



VMT- α -NET is Developed to Address the Unmet Need in NETs

Current Standard of Care limited to subset of NETs patients

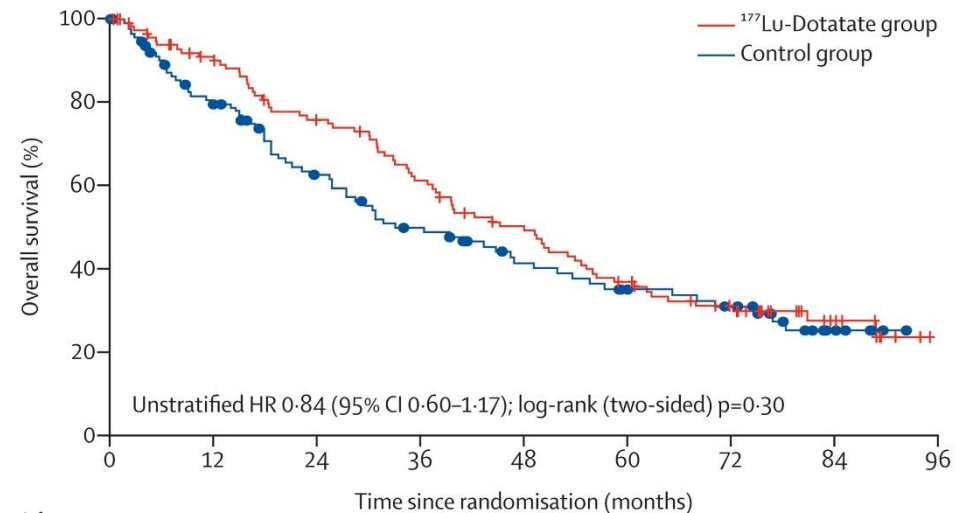
Significant unmet need:

- ~12K new diagnoses annually in the US¹
- ~175,000+ people are living with this diagnosis in the US¹

Market Opportunity

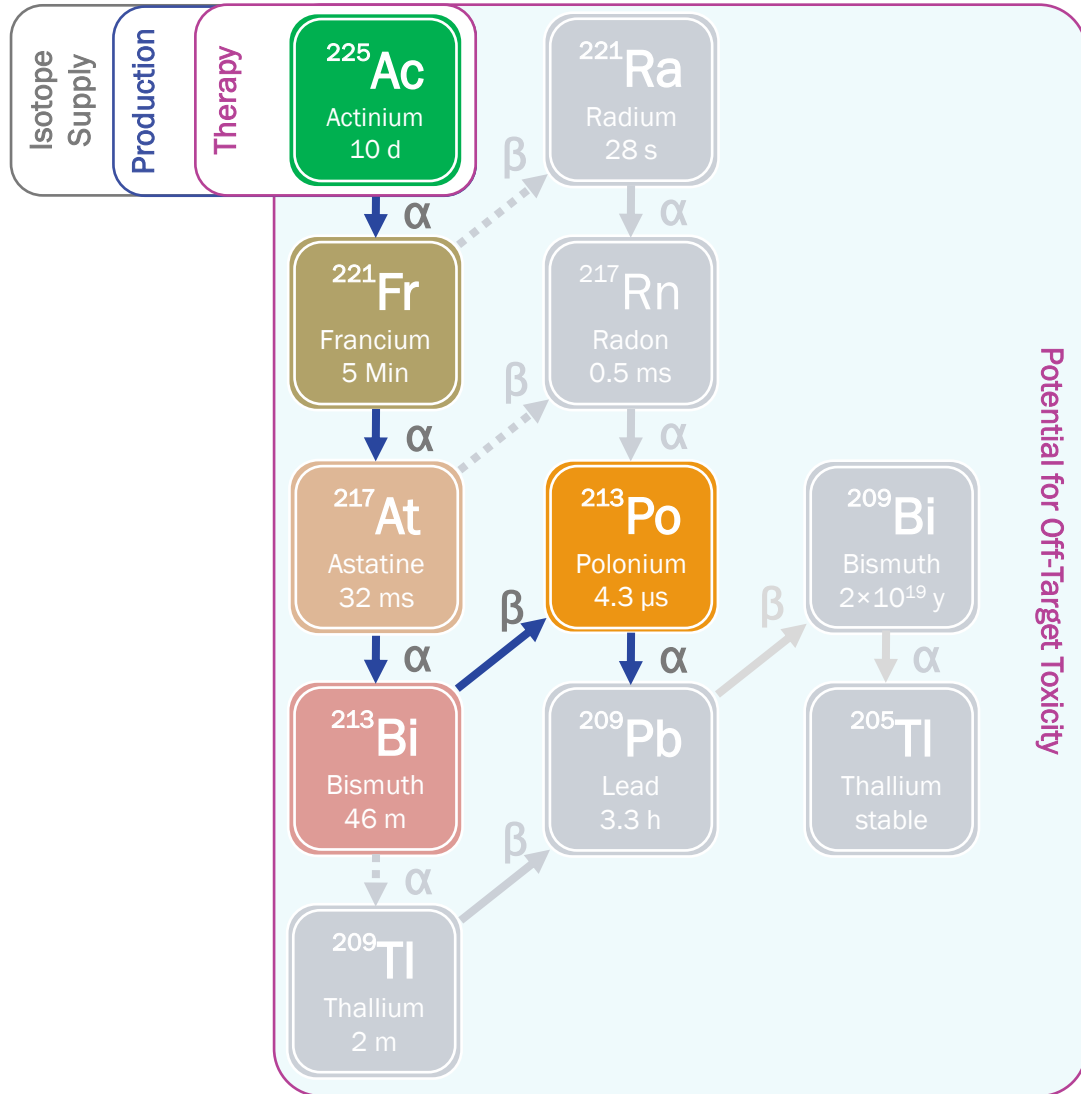
- Projected to be \$2.9 billion+ in 2029²
- Existing radiopharmaceutical treatment LUTATHERA® (Novartis) has an overall response rate (ORR) of **only 13–17%, and no overall survival (OS) benefit**³

NETTER-1 Study: Final overall survival⁴



- Treatment depends on the type of tumor. Some approaches may include surgery, radiation, and chemotherapy
- Broad acknowledgment that targeted alpha therapies are needed to improve care⁵

^{225}Ac Isotope Decay Chain and Potential for Off-Target Toxicity



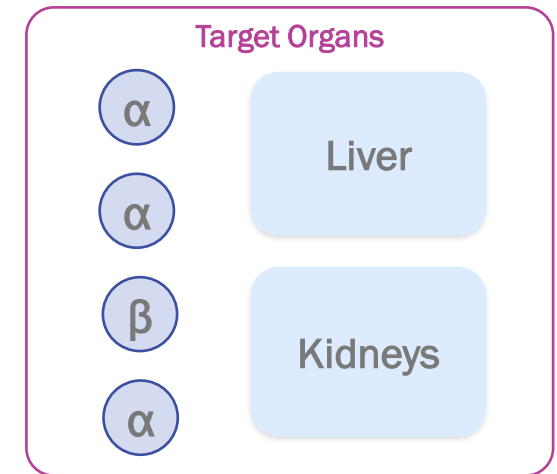
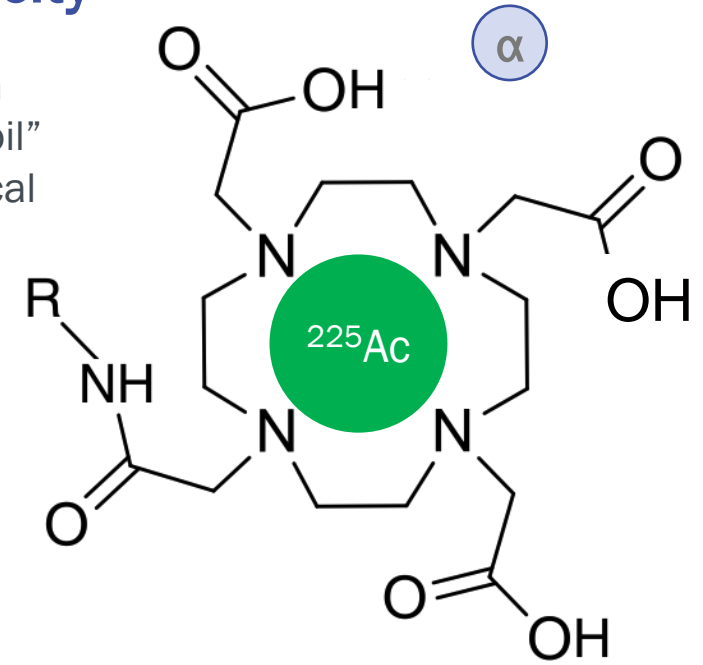
Alpha-particle emission imparts sufficient “recoil” energy to break chemical bonds

^{221}Fr

^{217}At

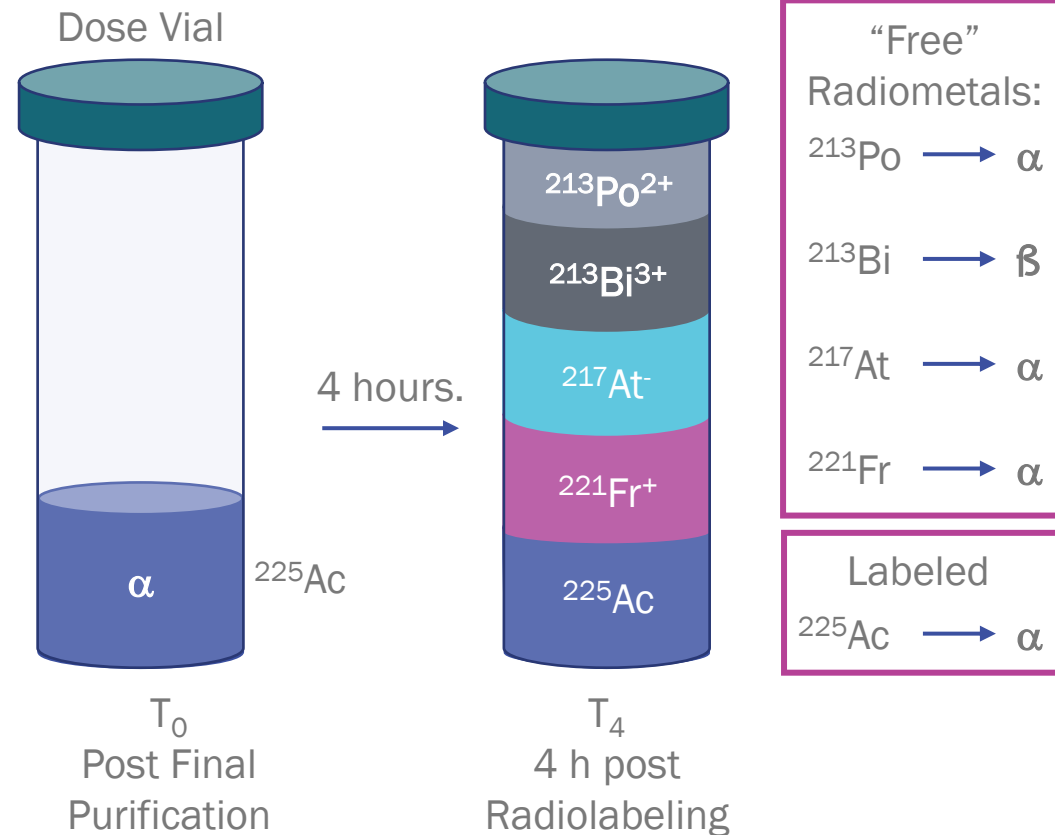
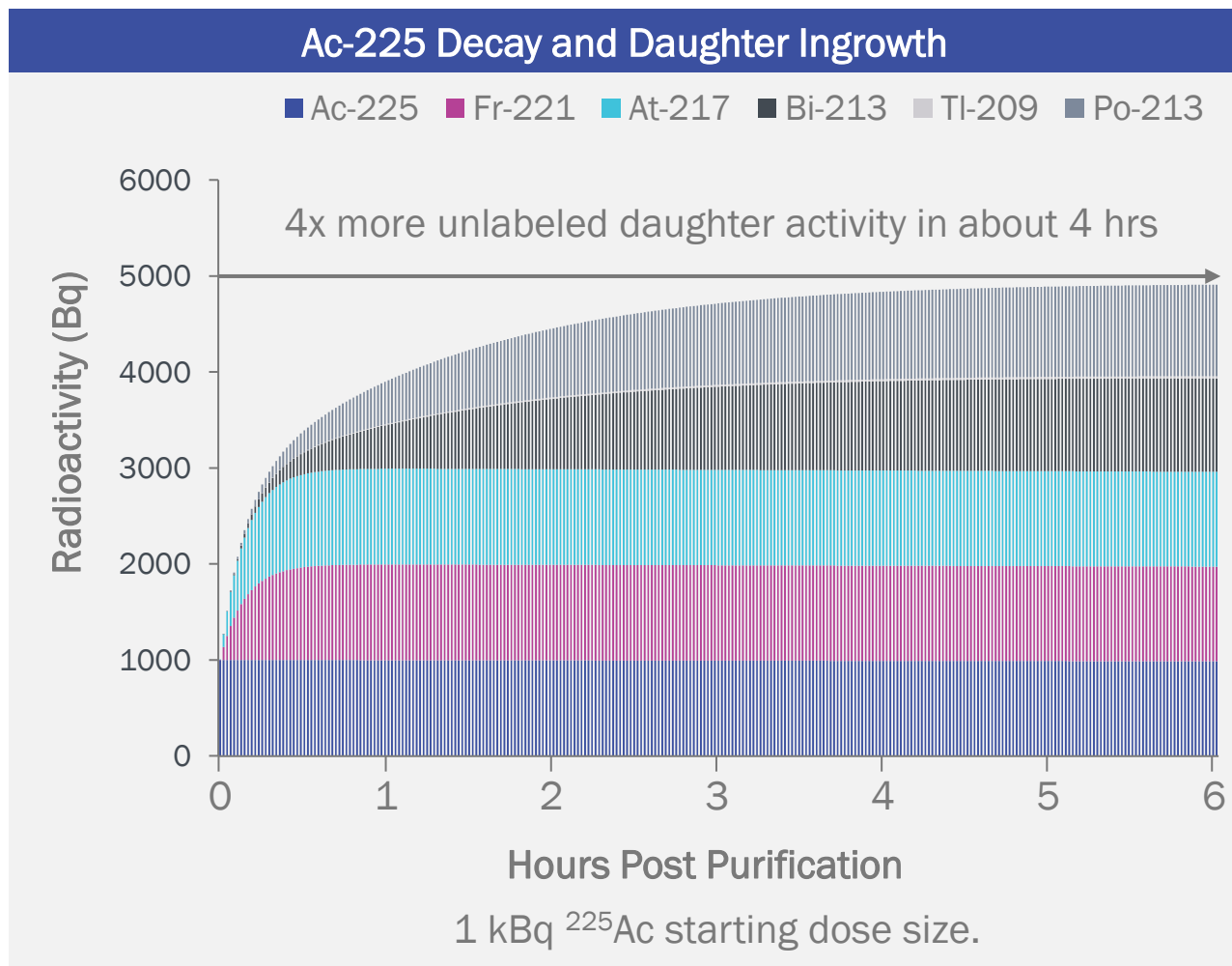
^{213}Bi

^{213}Po

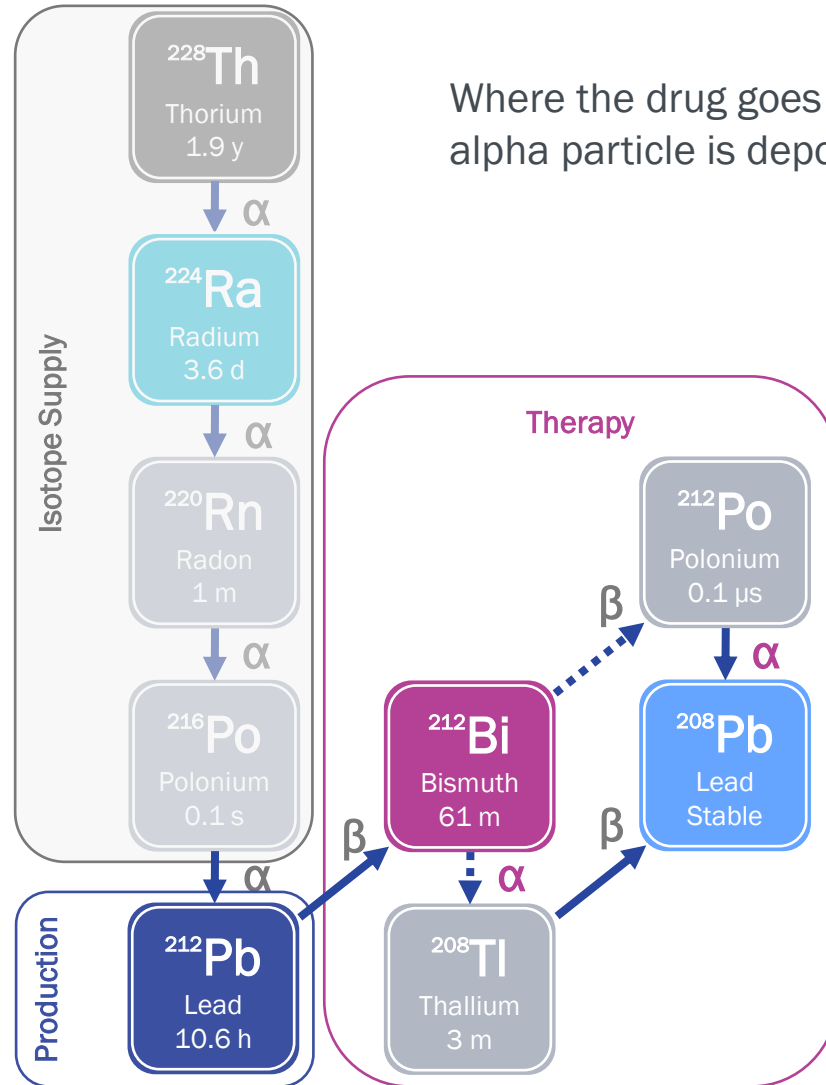


Isotope: Decay chain – Product implications

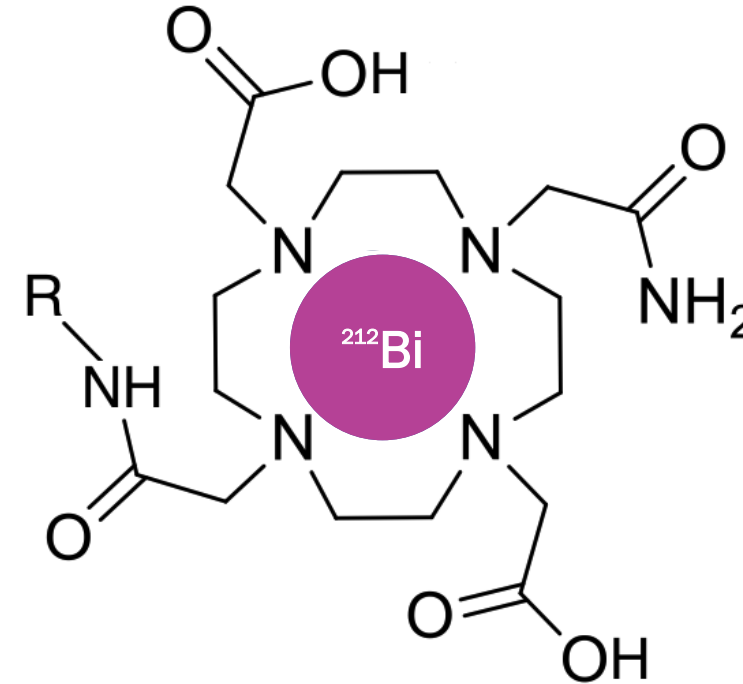
Post final radiolabeling and purification, alpha and beta emitting daughters of ^{225}Ac build up fast



^{212}Pb Isotope Decay Chain and Importance of the Pb-Specific Chelator



Where the drug goes = where the alpha particle is deposited



- Perspective's proprietary chelator retains 98% of ^{212}Bi after transition in drug formulation
- Generic chelators leak the ^{212}Bi alpha-emitting daughter up to 36%¹



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Associate Professor, Department of Human
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The University of Wisconsin – Madison, WI



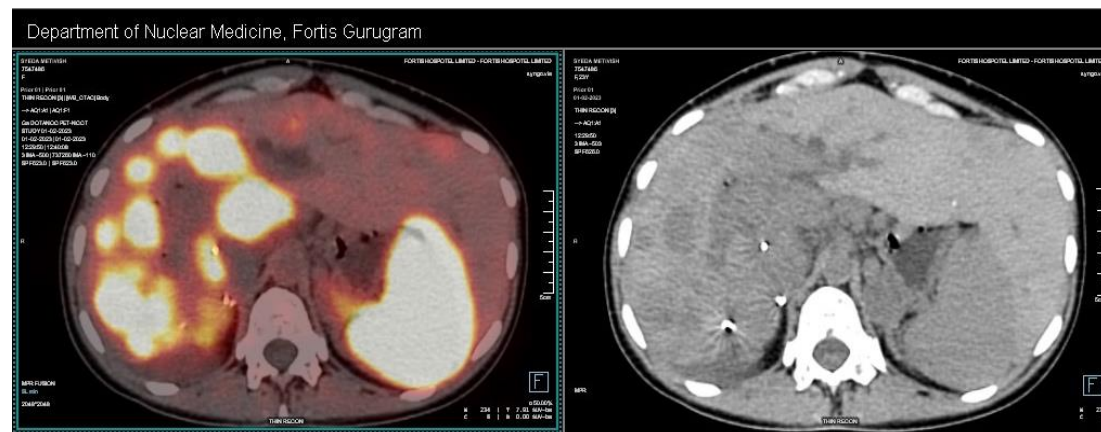
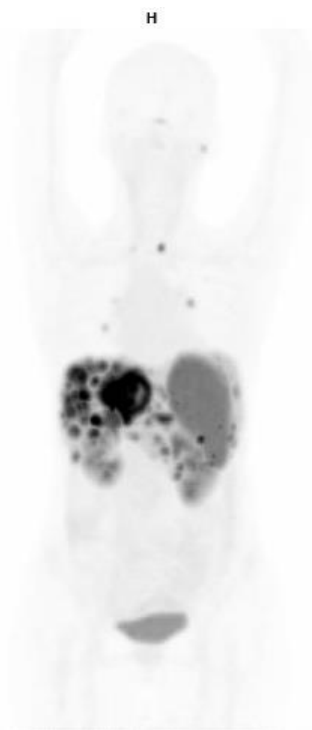
Appendix: VMT- α -NET

Additional Data from Clinical Investigation at Fortis Memorial
Research Institute, Gurgaon, India

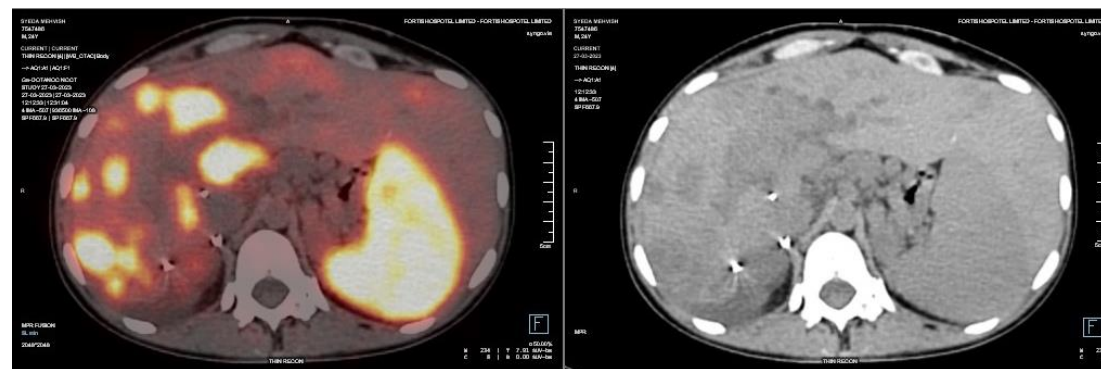
Significant Tumor Response After Two Doses

Patient 3: Metastatic NET Pancreas with Liver Metastases

MIP image Before Treatment

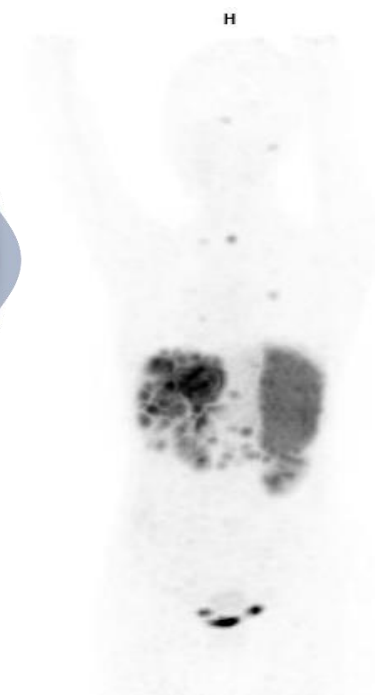


Liver Metastases before treatment



Liver Metastases after treatment with two doses

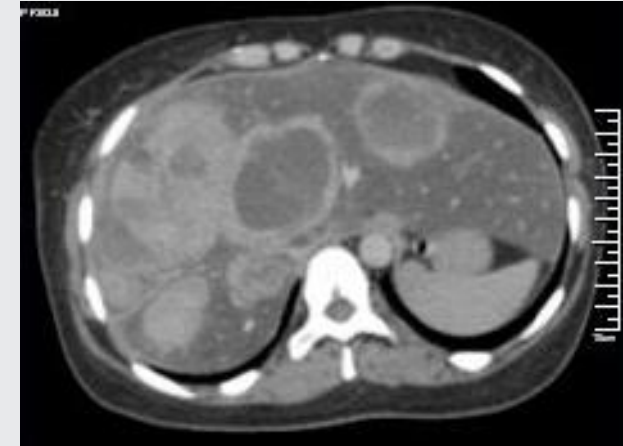
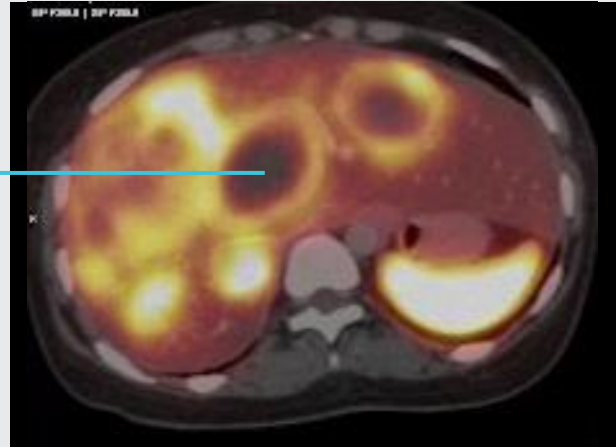
MIP image
After 2nd Treatment



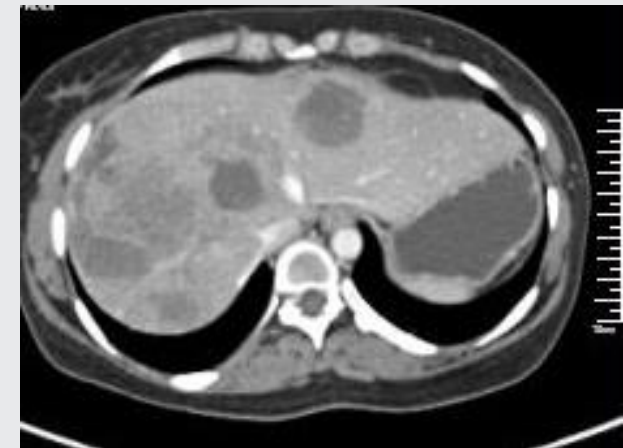
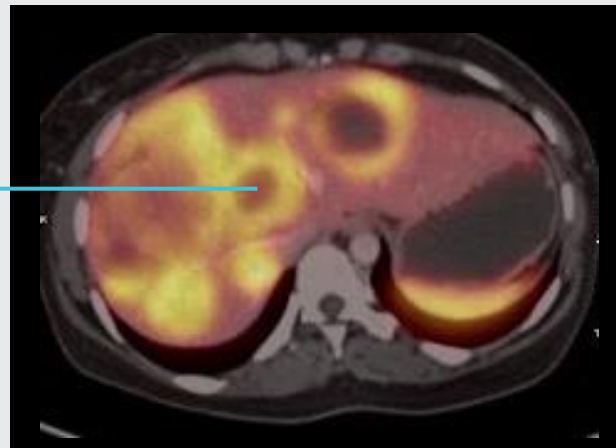
Reduction in Size of Necrotic Masses After 2 Doses

Patient 5: Pancreatic NET

Tumor Before
Treatment



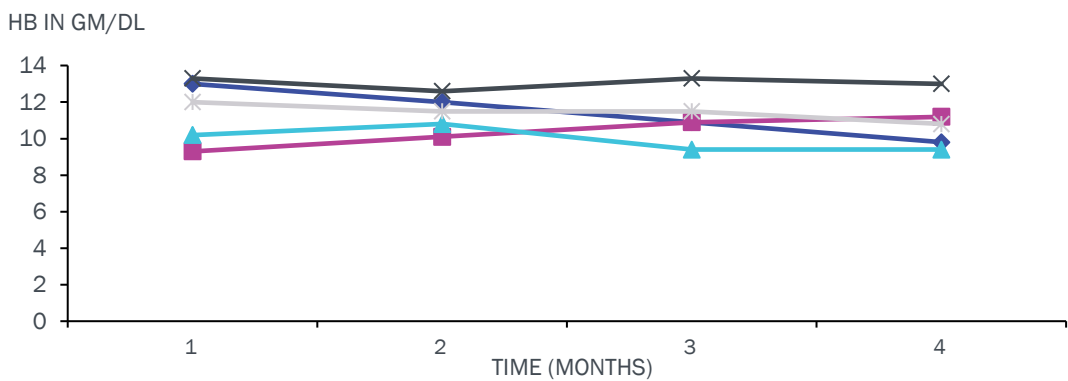
Tumor After
Treatment



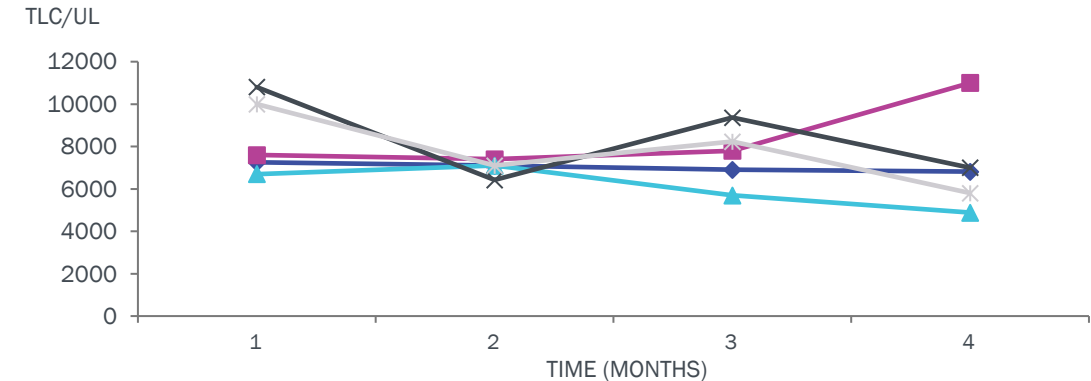
Favorable Safety and Tolerability Profile

Four Months Post-Treatment (5 Patients)

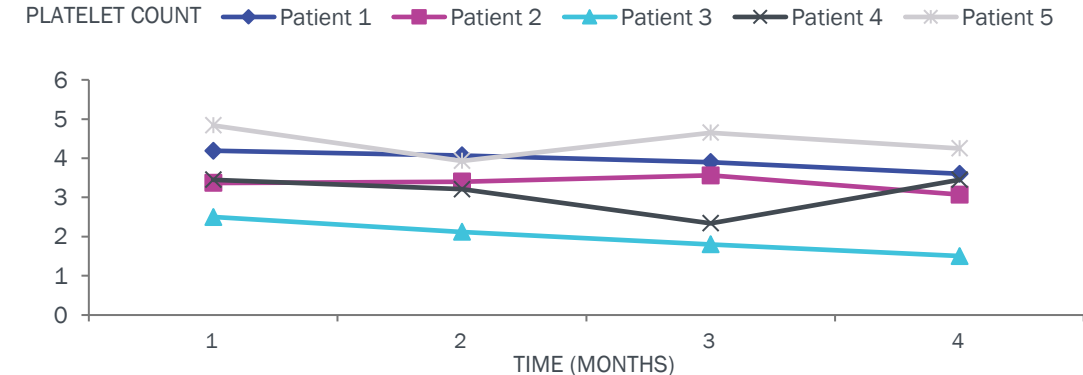
Hemoglobin Levels



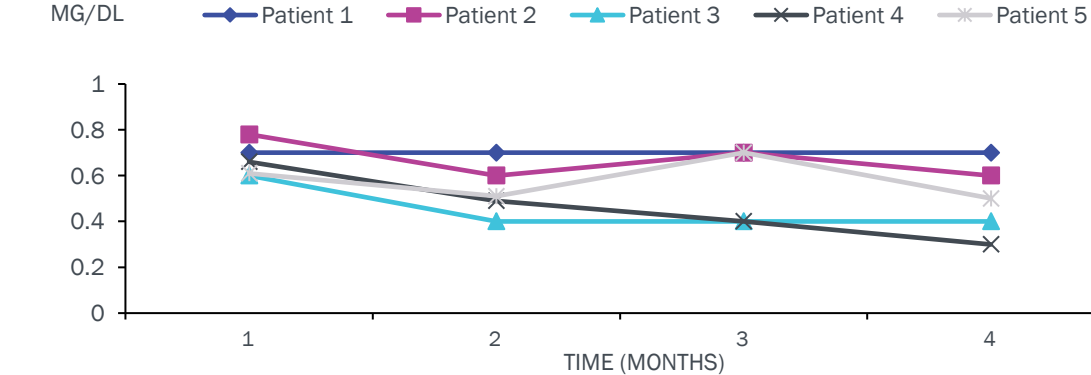
Total Leukocyte Count



Platelet Counts



Serum Creatinine

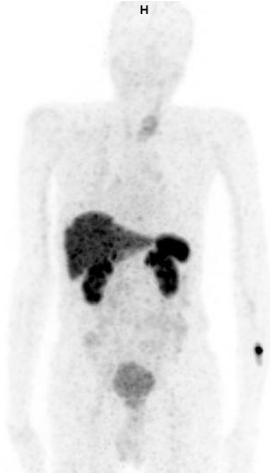
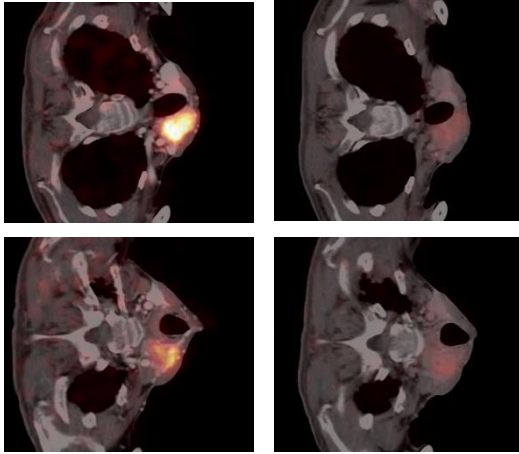


Serious Adverse Event in Patient 2

Myelodysplastic syndrome (MDS) Unrelated to Study Drug



Pre-Therapy



Post-Therapy

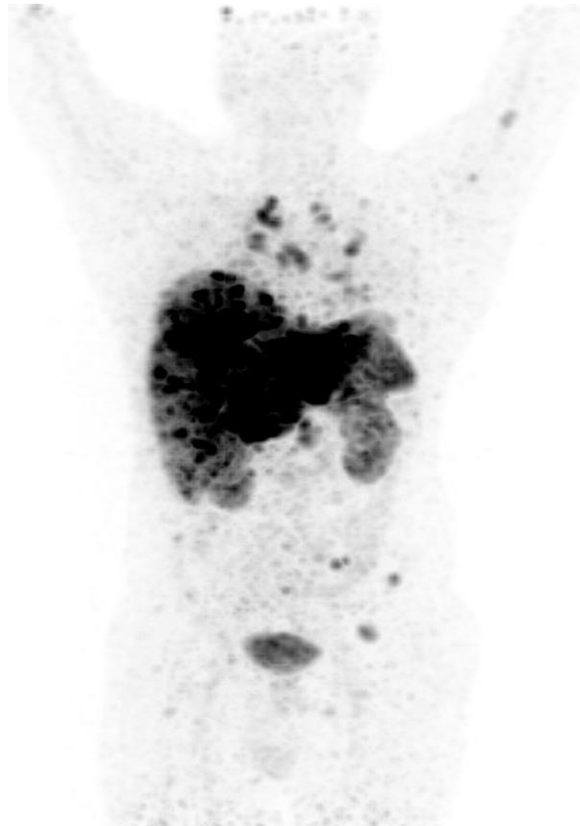
Patient Profile

- 79 year-male
- Metastatic Medullary Carcinoma thyroid
- Disease progression of TKI's
- Received total 3 doses of [^{212}Pb]VMT- α -NET therapy at an interval of 8 weeks (Cumulative dose 9.6 mCi)
- Shows Partial response for disease till date.
- Developed MDS on routine blood investigations
- Found positive for BCR-ABL gene

No causal relationship could be established

Serious Adverse Event in Patient 6

Acute Cardiac Event Unrelated to Study Drug



Significant tumor burden

Patient Profile

- 25 year-male
- Metastatic NET-pancreas
- **Long-standing disease** (>6 years duration)
- **Heavily pre-treated** with Inj. Sandostatin and 4 cycles of ^{177}Lu -DOTATATE along with CAPTEM regimen
- Received 1 dose of ^{212}Pb VMT- α -NET therapy (3.5 mCi)
- **Acute Cardiac Event** (Possible Carcinoid Heart Syndrome)
- Significant Tumor Burden - Possible Disease Progression

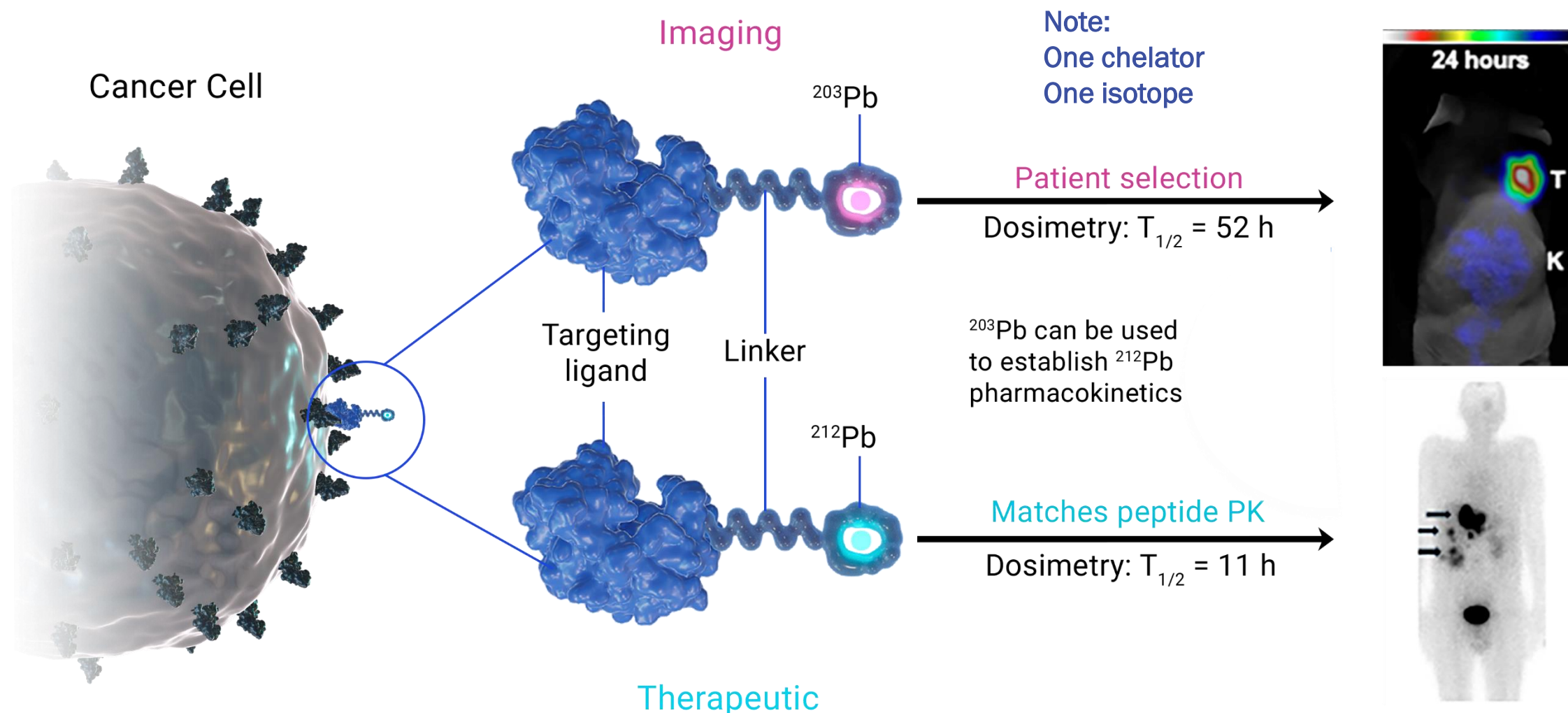
No causal relationship could be established



Appendix: Prostate Cancer Program – PSV401

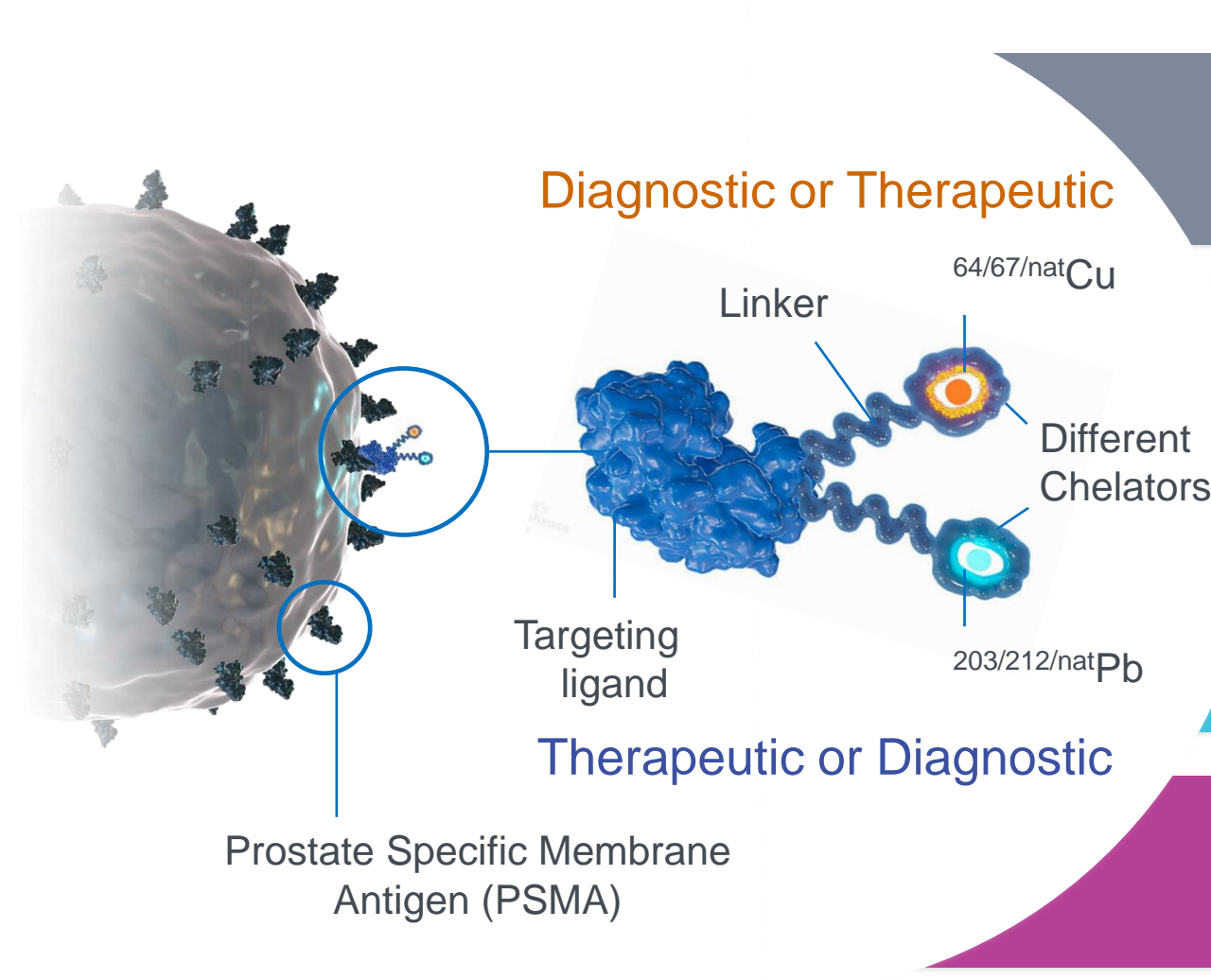
Typical Theranostic Approach : One Molecule, One Chelator, One Isotope

Separate But Chemically Identical Molecules Labeled with Either ^{203}Pb or ^{212}Pb for Imaging and Treatment, Respectively



PSV401 DoubLET^{1,2}: One Molecule, Two Chelators, Four Possible Isotopes

One Molecule Labelled with Two Elements at Once, with Isotope Selection Determining Diagnostic or Therapeutic



Two chelators on one targeting ligand
Each can be labeled with stable or radioactive atoms

Enables the same molecular entity to treat with lead-212 (²¹²Pb) and image by PET with Copper-64 (⁶⁴Cu)

Co-labeled with non-radioactive Pb provides identical biodistribution, allowing reliable dosimetry using ⁶⁴Cu

Technology Licensed from Mayo Clinic January 2024¹
IND-enabling studies underway
First in Human data expected in 2024

PSV401 Has Potential to be “Best-In-Class” Prostate Cancer Targeted Alpha Therapy

Current Standard of Care with Beta-Based Radiopharmaceutical Therapy (RPT) Still Requires Improvement

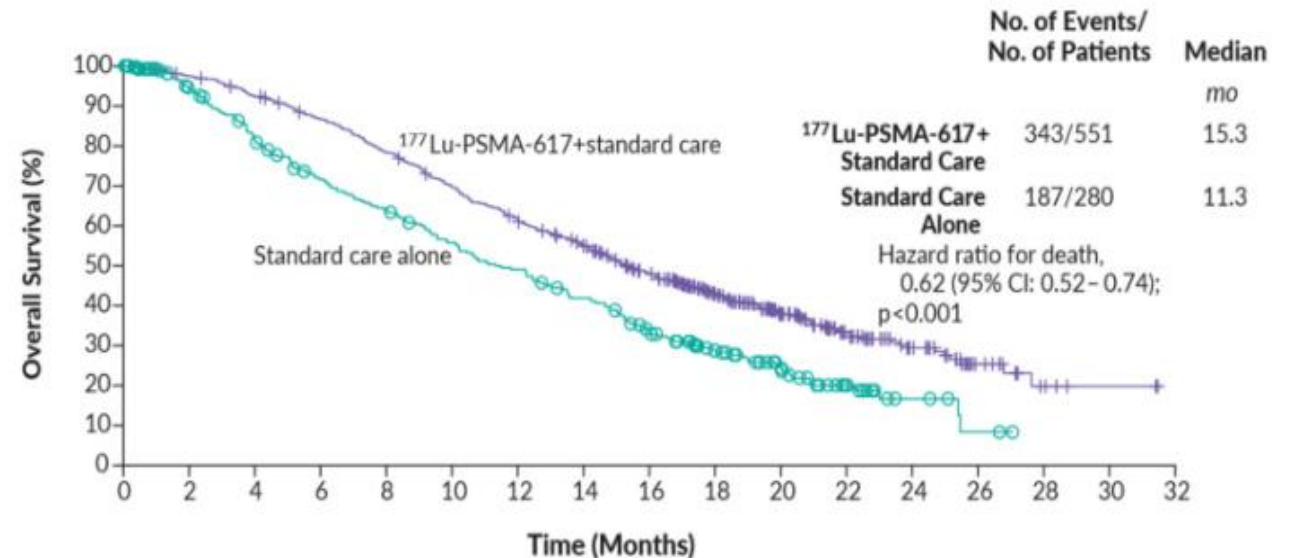
Significant Unmet Need:

- ~288K new diagnoses annually in the US¹
- ~3.3M+ men living with this diagnosis in the US¹
- ~35K deaths annually in the US¹

Market Opportunity:

- Projected to be \$27.5 billion+ in 2032²
- Existing radiopharmaceutical treatment PLUVICTO® (Novartis) has an overall response rate (ORR) of 30%, and an overall survival (OS) benefit of 4 months³
- PLUVICTO® expected to reach sales (\$1B plus) in only 2nd year on market⁴

VISION Study: Overall survival⁵



- Treatment depends on the stage of tumor. Typical approaches include surgery, radiation, chemotherapy and androgen-deprivation therapy
- Broad acknowledgment that targeted alpha therapies are needed to improve care⁶
- Salivary gland toxicity (xerostomia) is a common adverse side effect of PSMA targeted RPT (≈ 40%) and negatively impacts quality of life⁷

PSV401: Preclinical ^{64}Cu PET Imaging Data Showing Tumor Uptake

Rapid Tumor Uptake and Effective Renal Clearance with Radioactive Imaging Isotope¹

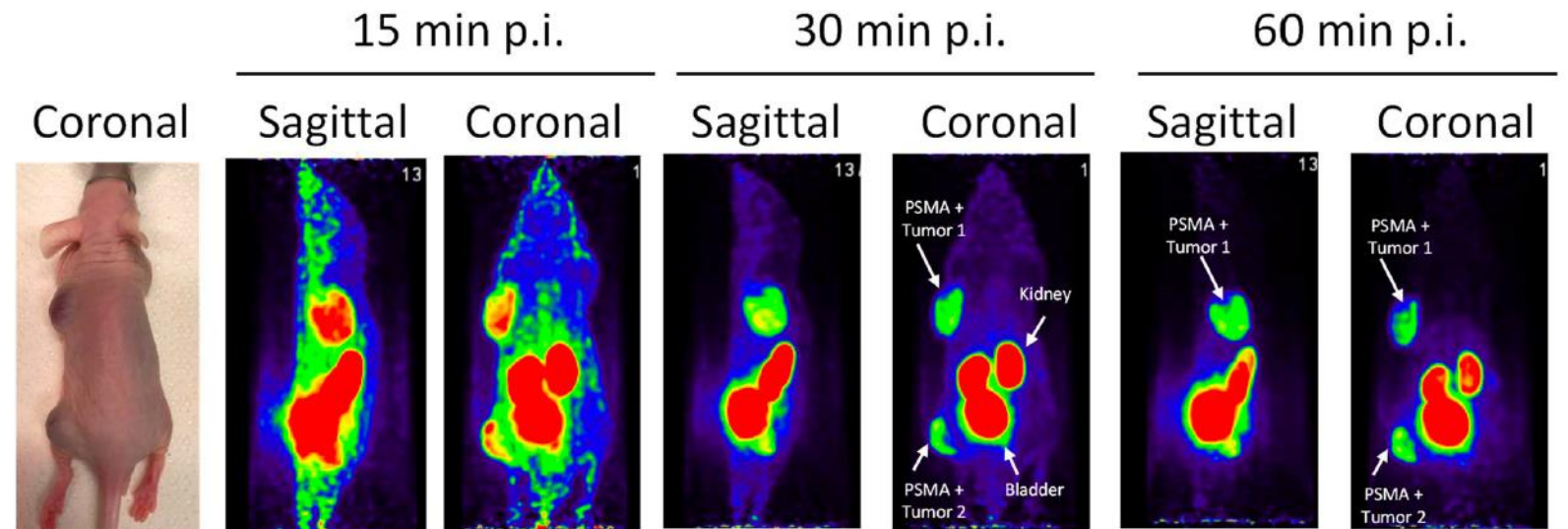
Key Takeaways



PSMA+ LNCaP tumor model suggests [^{64}Cu]PSV401 targets tumor rapidly – suitable for diagnostic or treatment monitoring



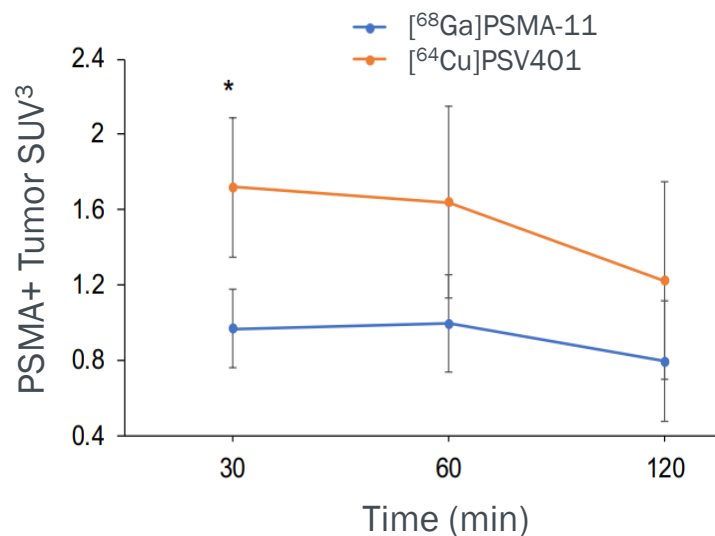
Imaging product also indicates effective renal clearance and no other dose-limiting organs, essential for targeted alpha particle therapy



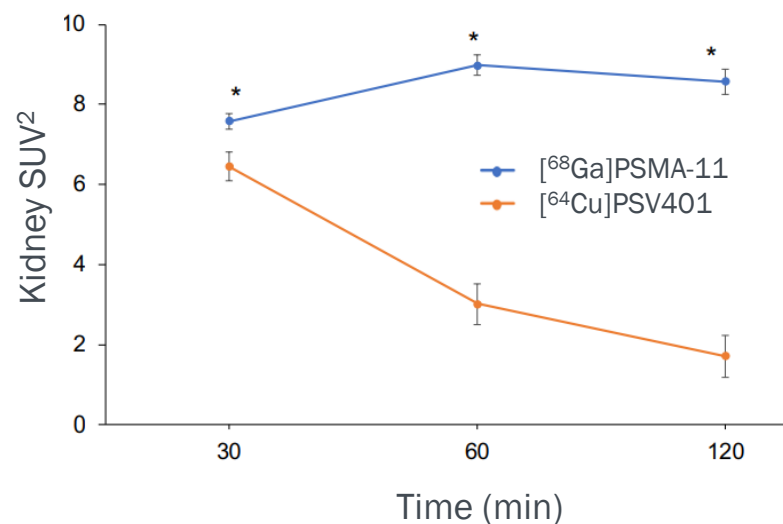
PSV401: Preclinical Comparison to Industry Standard

[⁶⁴Cu]PSV401 Significantly¹ Improved Uptake/Clearance Compared to [⁶⁸Ga]PSMA-11²

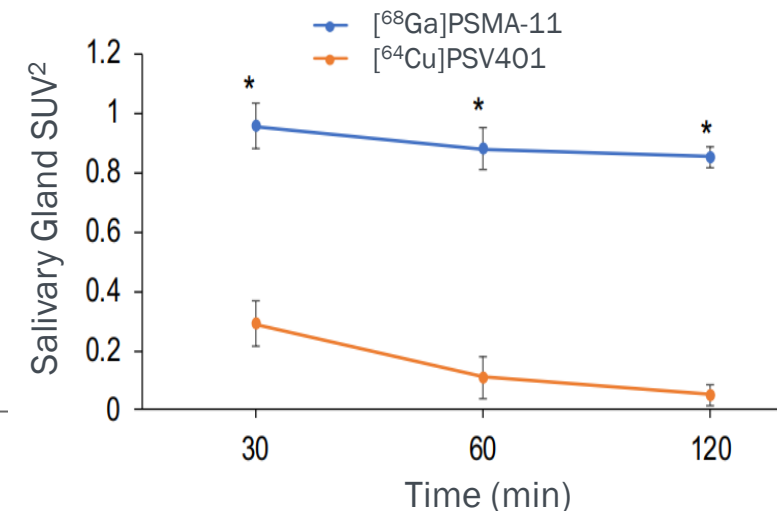
Tumor Retention



Kidney Retention



Salivary Gland Retention



Key Differentiation to Competitors

- Higher tumor accumulation/retention
- Significantly lower salivary gland uptake and retention
- Significantly lower kidney accumulation and retention

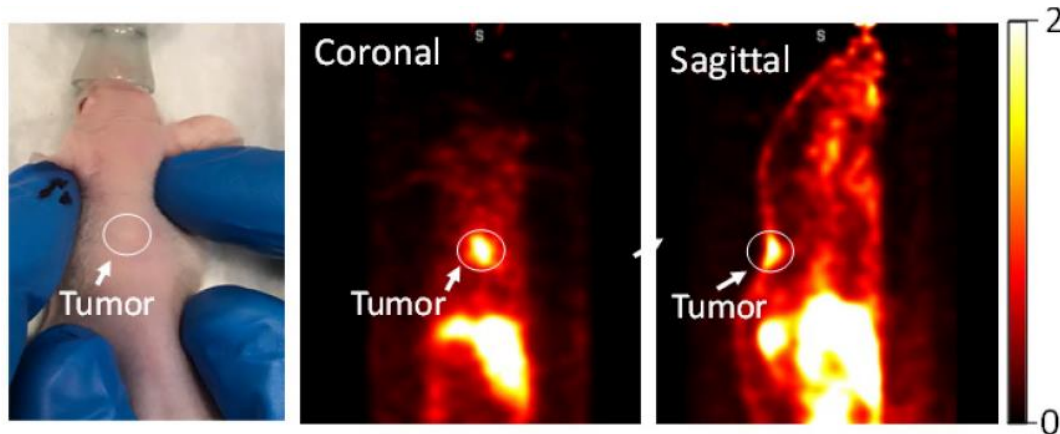
Larger therapeutic window
(greater efficacy and reduced toxicity)

Preclinical [^{212}Pb]PSV401 Therapy

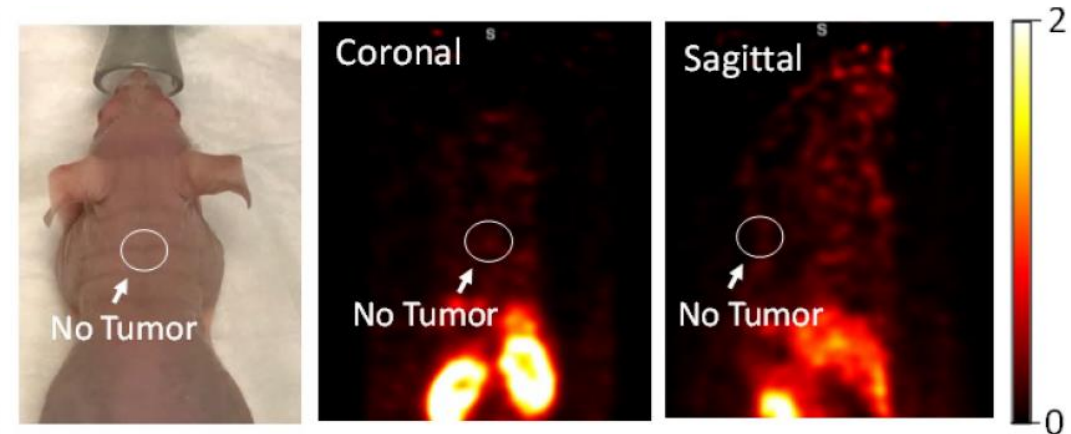
Preliminary [^{212}Pb]PSV401 Data Shows Potential to Effectively Kill Tumors ¹

- All imaging performed with [^{64}Cu]PSV401 microPET
- Treatment of PSMA+ prostate cancer xenograft with [^{212}Pb]PSV401 reduced tumor size 38% in 3 days and complete response after 9 days
- Additional preclinical work underway

2 Days Prior to [^{212}Pb]PSV401



18 Days Post [^{212}Pb]PSV401 Dose

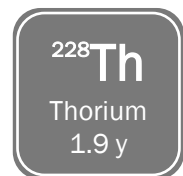




Appendix: Manufacturing, Production and Logistics of ^{212}Pb -labeled Therapeutics

Isotope Decay Chain Dictates Supply, Purification, Manufacturing & Logistics

Naturally Occurring Isotope Decay – No Irradiation Processes Required



Plentiful Supply:
Naturally occurring, or
produced as a waste product



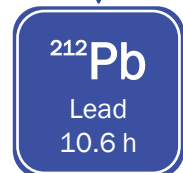
- Multiple global suppliers including natural decay
- 2 year half-life allows stockpiling



Chemical Separation:
Allows for Ra-based
generators of ^{212}Pb



- Half-life allows global distribution
- Weekly delivery of ^{224}Ra enables daily ^{212}Pb
- 3.6 day half-life allows local stockpiling



Chemical Separation from ^{224}Ra :
Isotope used for manufacturing
finished product



- Regional finished product manufacturing
- Leverages existing networks for logistics



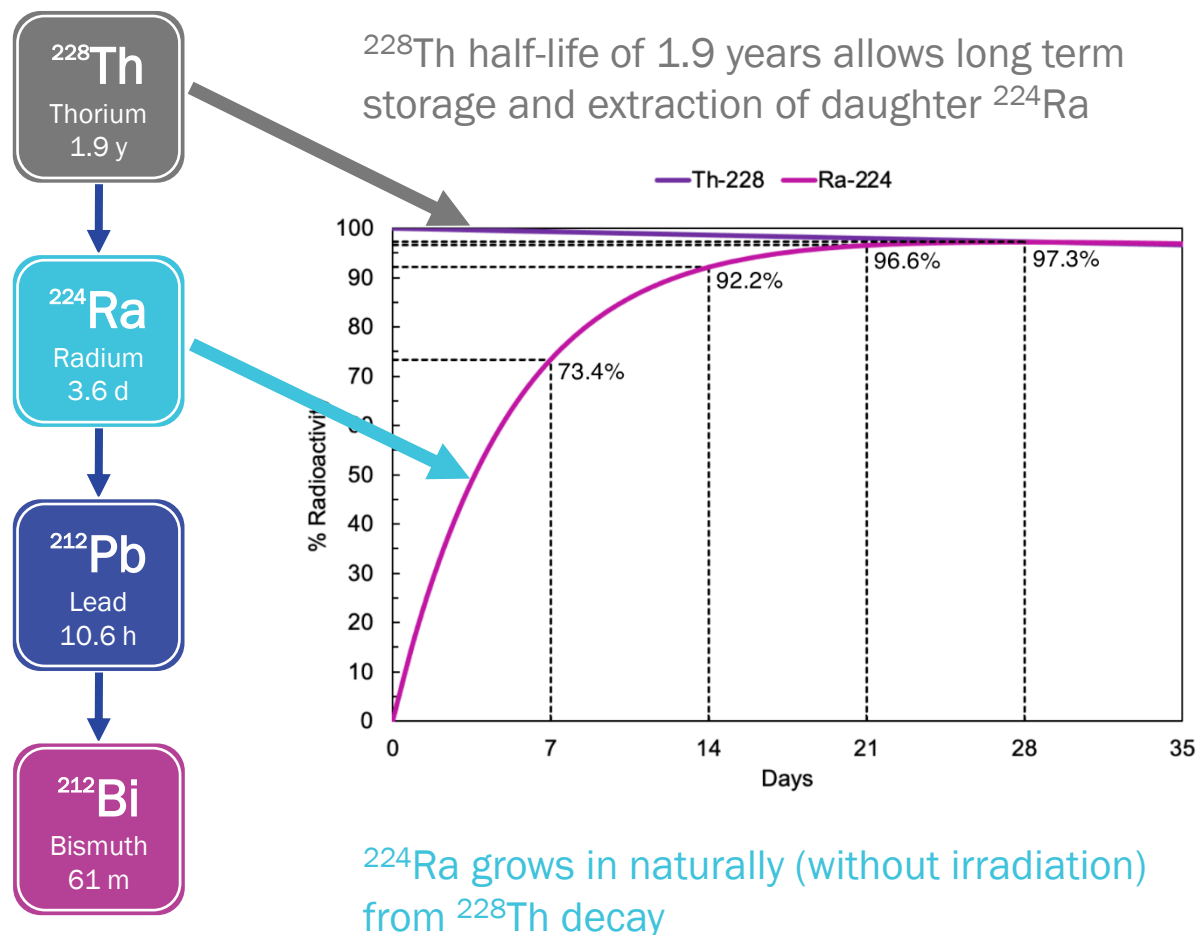
High dose-rate alpha-emitting
therapeutic isotope



- ^{212}Pb acts as *in vivo* “nanogenerator” of alphas
- Perspective’s chelator retains ^{212}Bi in drug

Parent Isotope Source

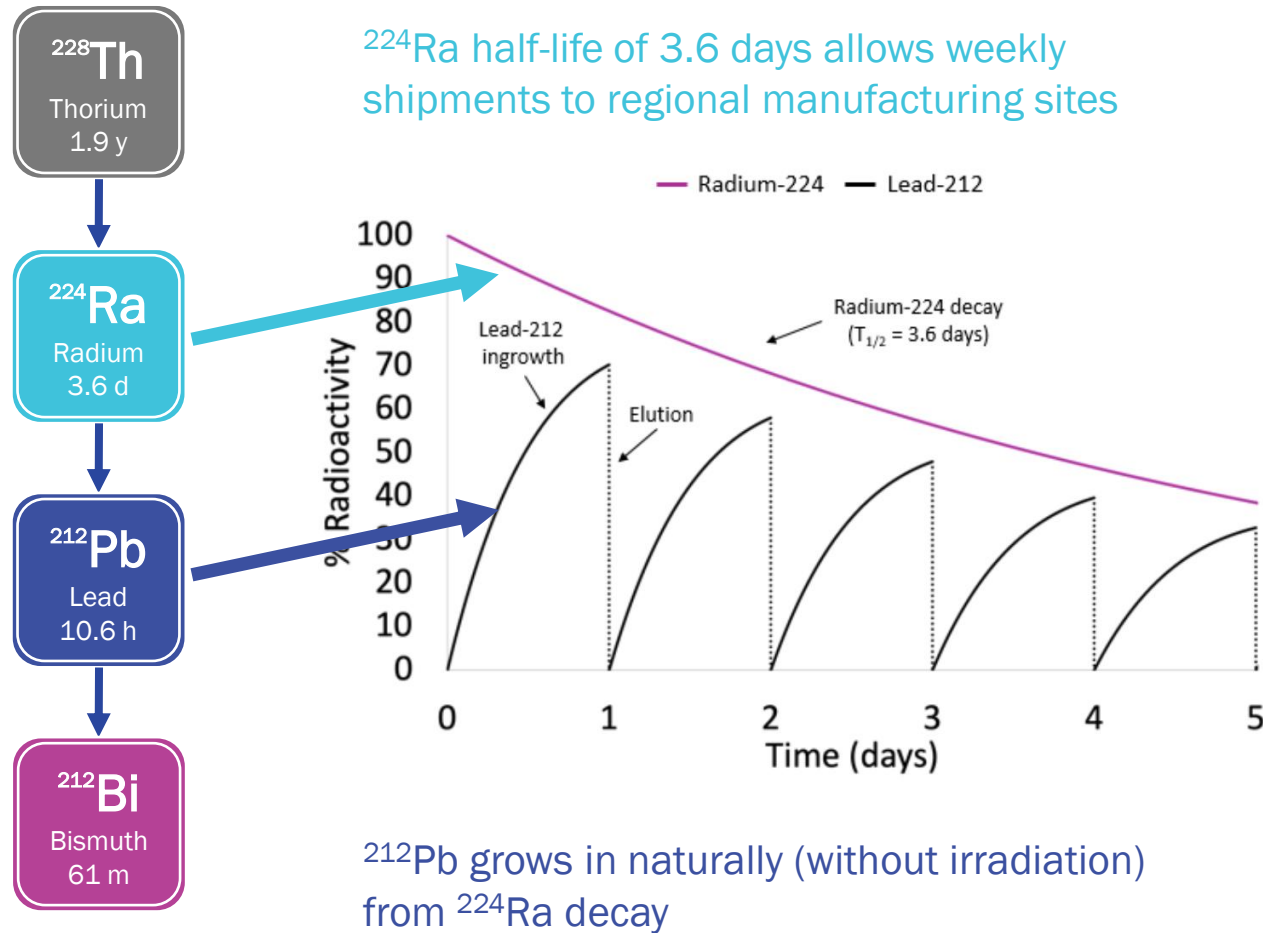
Key Isotopes for Supply: ^{228}Th and ^{224}Ra



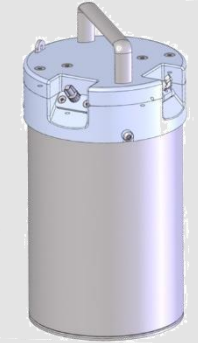
- Perspective currently has a 10 year supply agreement with US Department of Energy
- Produced as a waste by-product from isotope ^{223}Ra (Xofigo) manufacture
- Irradiation to produce very large quantities (100s of Ci) in a high-flux reactor can be performed every 6-12 months in a single batch, or as needed
- 2 year half-life allows stockpiling and de-risks the supply chain
- 8+ suppliers identified across the globe

Flexible and Scalable Isotope Supply

^{224}Ra enables Regional Manufacturing Hubs

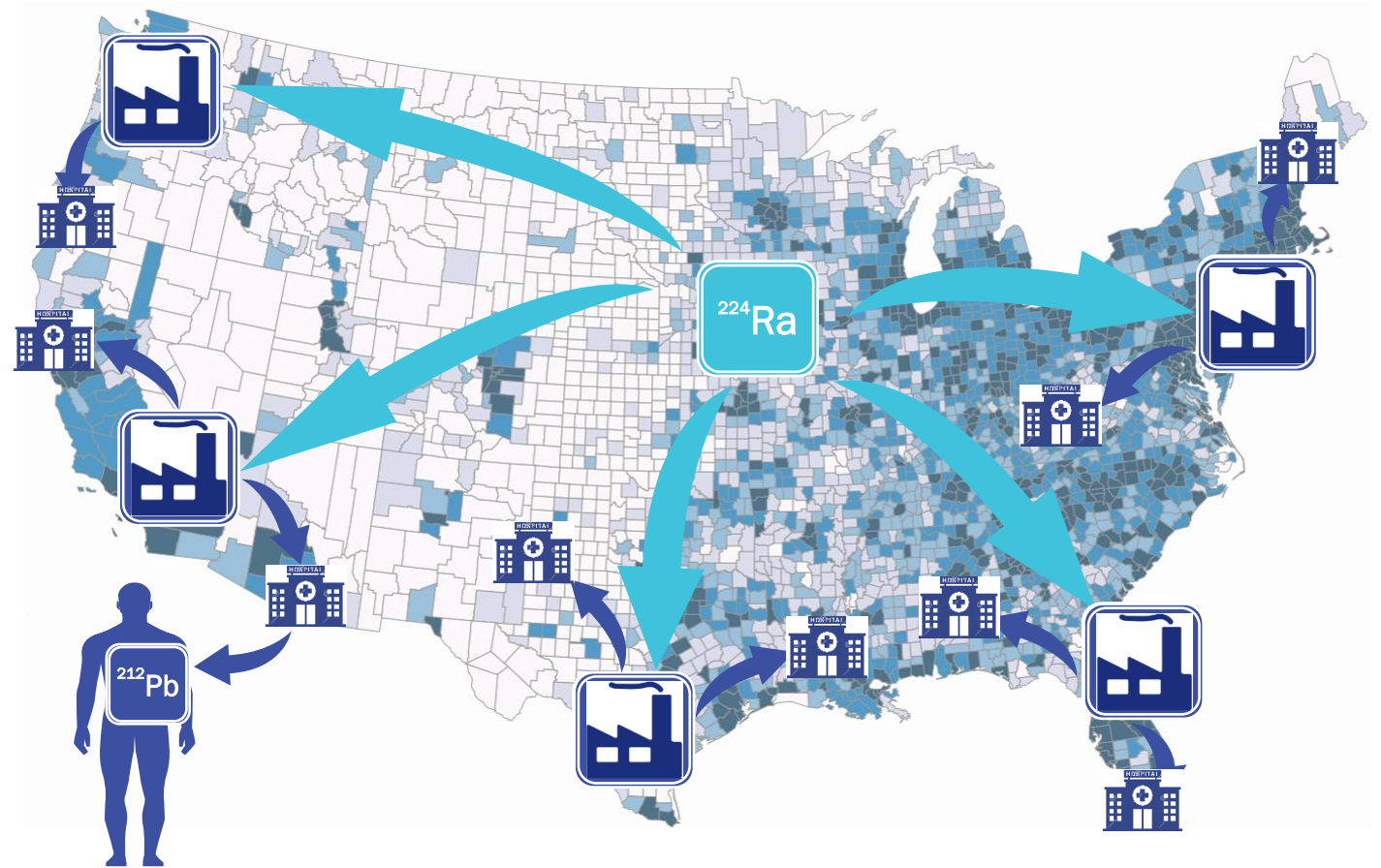
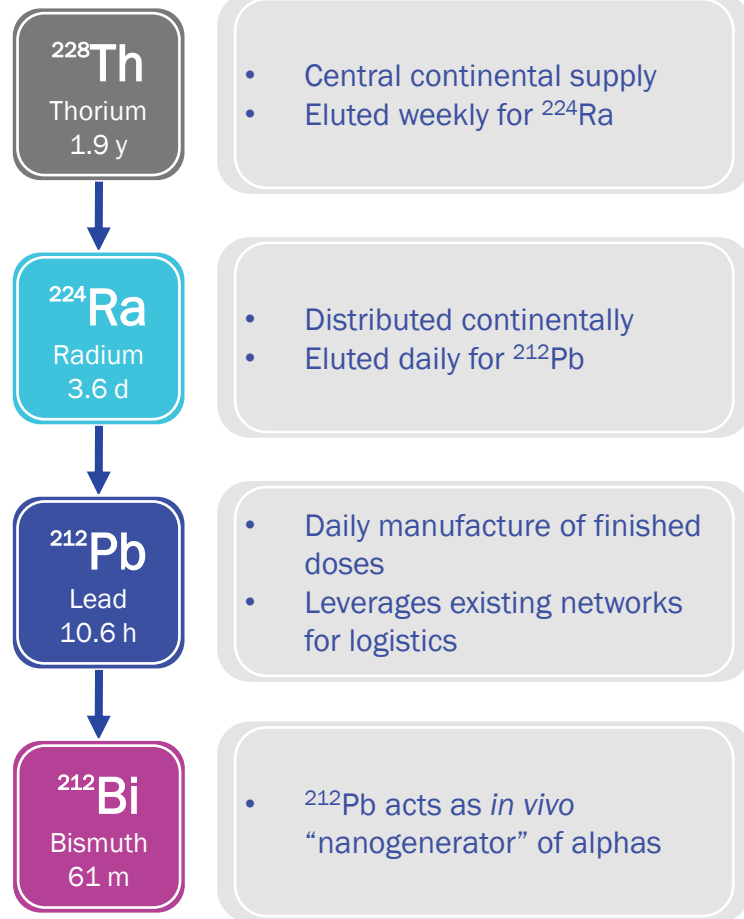


- Perspective's proprietary VMT- α -GEN enables shipping of isotope and purification of ^{212}Pb in one package, simplifying supply
- VMT- α -GEN generator technology scales for commercial production
- Extremely pure isotope allows straightforward production process
- Regional manufacturing sites will not require licenses for any long-lived isotopes, reducing costs and waste concerns
- Other ^{212}Pb production processes are possible






Isotope Decay Chain Dictates Supply, Purification, Manufacturing & Logistics

Naturally Occurring Isotope Decay – No Irradiation Processes Required



^{212}Pb is Plentiful, Storable, Scalable & Suitable for Distributed Logistics

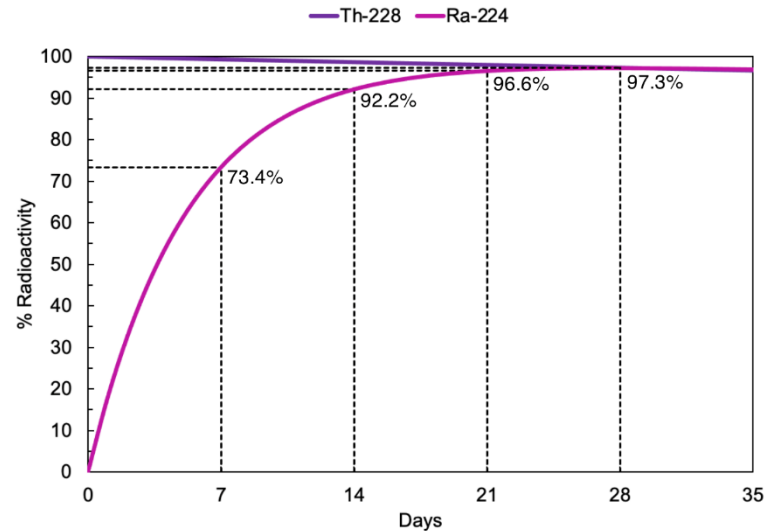
The supply chain is lower-risk and more robust than other therapeutic isotopes

Isotope Source	Isotope Purification	Product Manufacturing
 <p>Naturally occurring in mining waste Also produced in industrial nuclear processes Can be made on demand if needed</p>	 <p>Parent isotope Thorium-228 can be stored (2 yr half-life) ^{212}Pb purified from ^{228}Th or ^{224}Ra source in simple separation step</p>	 <p>VMT-α-GEN ^{212}Pb generator technology scales for commercial production Extremely pure isotope allows straight forward manufacturing process</p>
All other therapeutic isotopes require capital-intensive infrastructure manufacturing processes (irradiation)	VMT- α -GEN enables shipping of isotope and purification of ^{212}Pb in one package	10.5 hr half life of ^{212}Pb allows for robust regional distribution of finished radiopharmaceuticals

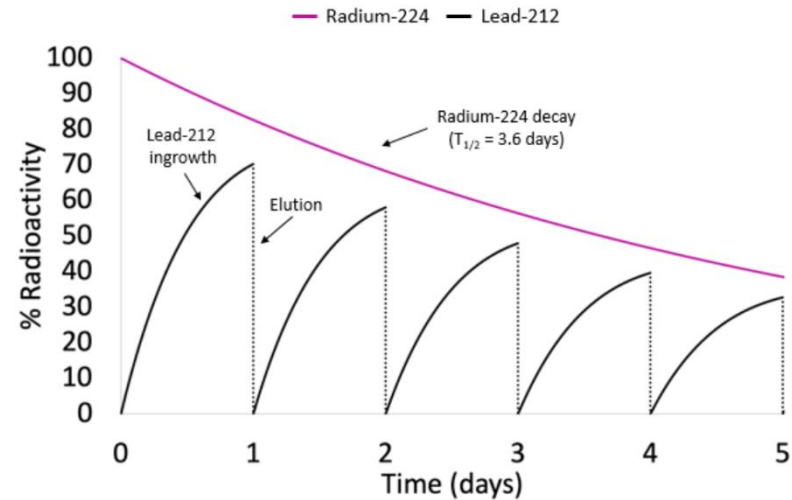
Parent Isotope Source

Key Isotopes for Supply: Th-228 and Ra-224

- Storage of thorium-228 (half-life of 1.9 years) allows for “on-demand” purification of Ra-224 and Pb-212
- Multiple purification/production methods for Th-228 with different starting materials and processes, including Ra-228 generators (half-life 5.7 years)
- Ra-224 (half-life 3.6 days) allows for continental shipping of material to network of finished product manufacturing sites (CDMOs)
- A weekly supply of Ra-224 can be purified daily to produce batches of Pb-212



Ra-224 grows in naturally (without irradiation) from a Th-228 “source”



Pb-212 grows in naturally (without irradiation) from a Ra-224 “source”

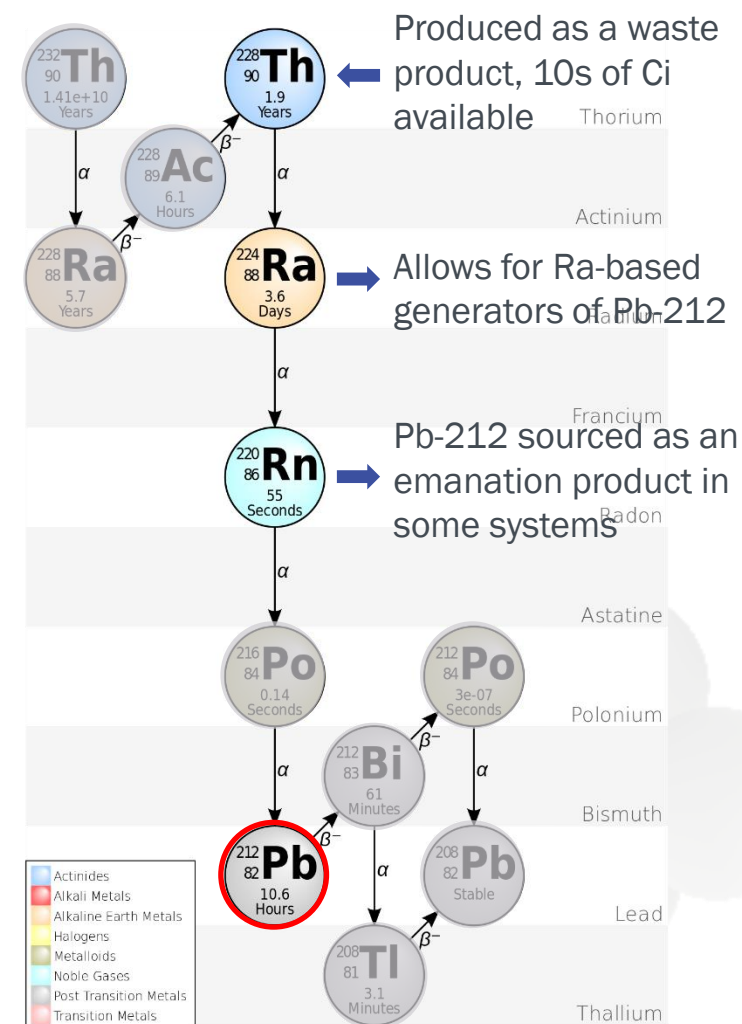
Parent Isotope Supply

Large quantities of precursor Th-228 available

- Thorium-228 is available as a natural isotope but is also produced as a waste product from the nuclear fuel cycle, and as a result of production of therapeutic isotope Ra-223 (marketed as Xofigo, Bayer)
- Both Ac-227 (the parent isotope of Ra-223) and Th-228 are created when DOE's ORNL irradiates radium-226 in the High Flux Isotope Reactor.¹
- The DOE therefore has 10s of curies of Th-228 available in a highly purified form
- Perspective Therapeutics estimates that such current quantities would suffice for approximately 150,000+ patient doses per year
- Perspective has a long-term supply agreement with the DOE for supply of Th-228

The availability of parent isotope in large quantities significantly de-risks supply of Pb-212 as a therapeutic isotope. In addition, it provides methodological flexibility for Pb-212, as there are many processes available for large-scale purification.

Natural decay,
no input
needed



Pb-212 Isotope Purification

Multiple purification paths to Pb-212 available

Small scale

- Similar in size to Ga-68 generators
- Useful for preclinical R&D and clinical trials
- Nimble, portable supply available for either local or regional production
- Typically chromatography column based
- Using Ra-224 as parent
- Shelf life approx. 1-2 weeks
- 1-2 doses per batch per day

Examples:

- DOE
- VMT- α -GEN



Medium scale

- “Desktop” generators
- Useful for clinical trials & limited commercial production
- Non-portable, fixed location within hot cell in local production facility
- Gas-phase separation of the Rn-220
- Shelf life approx. 1 year
- 1-3 doses per batch per day

Examples:

- Advancell, others



Commercial scale

- Hot cell-sized generators
- For commercial production
- Non-portable, fixed location within hot cell in regional production facility
- Either chromatography or gas-phase separation using Th-228 source
- Permanent installation, topped up with Th-228 approx every 3 to 6 mo
- Questions about scalability and licensing

Examples:

- Multiple In development



The production of Pb-212 is inherently scalable to demand, flexible due to different purification schemes and cost-effective due to existing isotope availability. This contrasts with other alpha-emitting isotopes which require large infrastructure to produce and purify.

^{212}Pb Supply via Reusable Desktop Isotope Generator



VMT- α -GEN

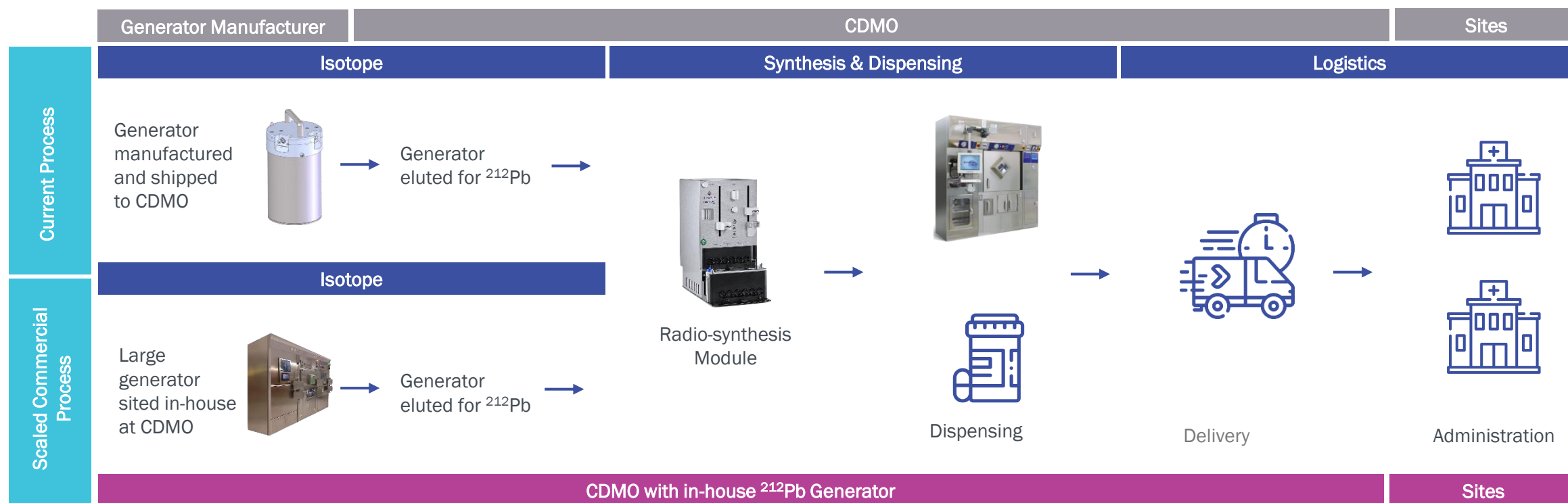
- Extensive feedstock from nuclear and mining waste material
- Long-term supply contract secured with US DOE
- On demand daily doses
 - Auto-regenerates overnight
 - ~1 week shelf life

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

Scalable Manufacturing and Distribution Logistics

Perspective's plan to flexibly scale manufacturing to commercial levels (100,000+ doses per year)

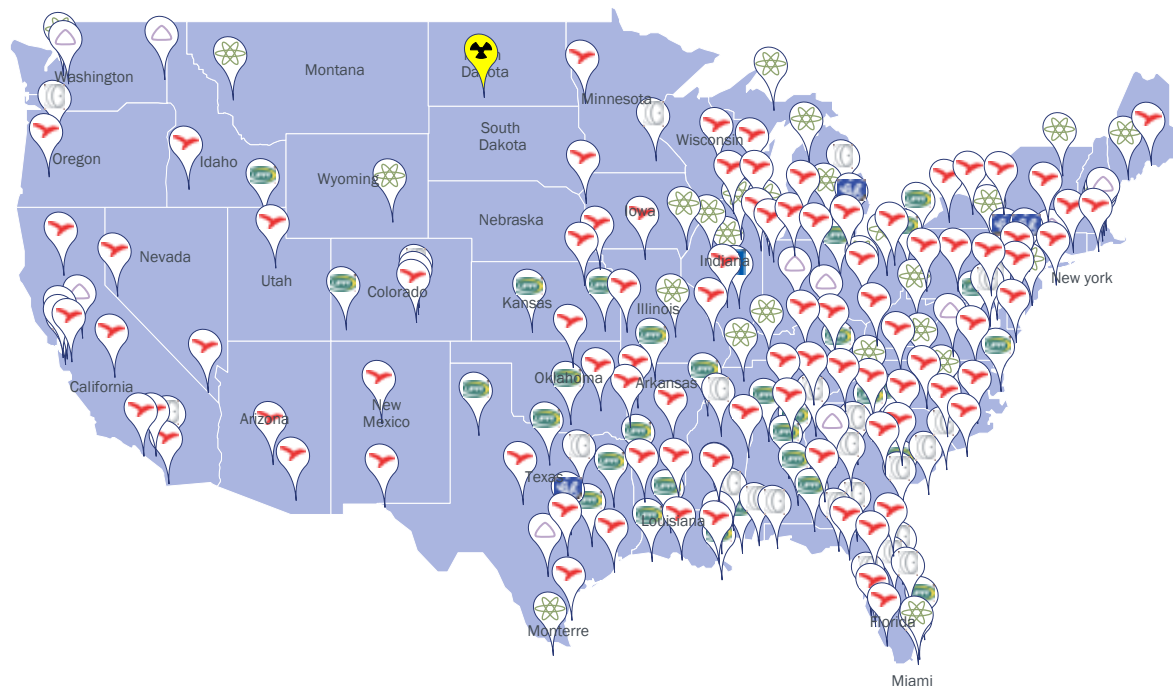


- Commercial supply will require the use of an isotope production system of larger scale than the current $^{224}\text{Ra}/^{212}\text{Pb}$ generators
- The current isotope separation process remains highly scalable with larger activity levels
- Regional CDMOs will have capabilities to expand capacity as needed as more ^{212}Pb products come on-line

Infrastructure and Distribution Networks for Radiopharmaceuticals are Mature

Existing radiopharmacies have established logistics for distributed supply

Map of US Radiopharmacies¹



- There were 40+ million diagnostic nuclear medicine procedures performed in the US in 2022
- Multiple networks exist in a competitive environment of 300+ radiopharmacies
- Distribution logistics are mature and well-developed
- Many of these diagnostic products have much shorter half-lives than ^{212}Pb
- Radiopharmaceutical revenues are expected to reach between \$14 and \$33 billion by 2031, driven by therapeutics

The technology, infrastructure, logistics, market, clinical demand, and regulatory pathways for Perspective's products are mature/growing and will be ready for scaled commercial production and distribution of ^{212}Pb -based radiotherapeutics

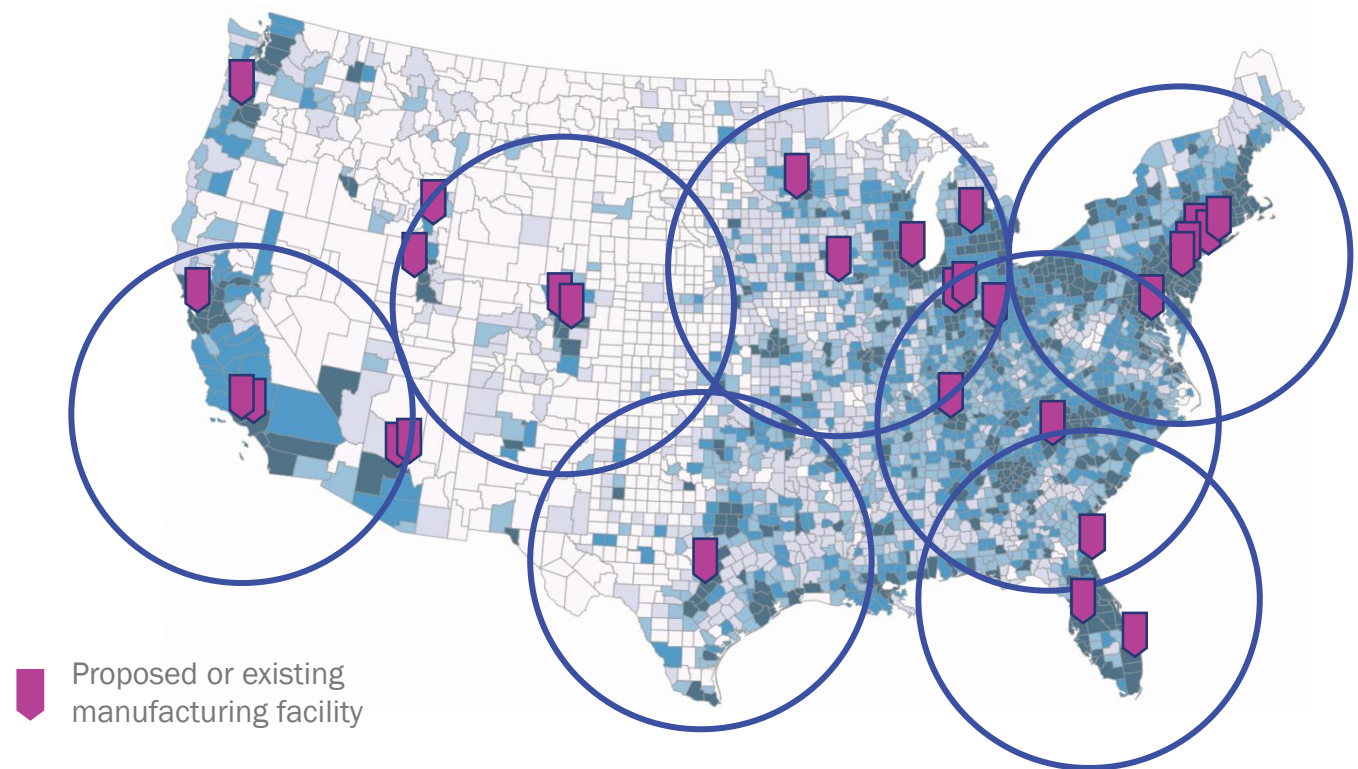
Regional Manufacturing Allows Commercialization of ^{212}Pb -labeled Finished Products

Limited number of sites allows for “network effect” to ensure robust supply chain

Location	Radius 11 hr – 400 miles
Coralville, IA	51 m
New York, NY	75 m
Los Angeles, CA	46 m
Austin, TX	32 m
Atlanta, GA	57 m
Central Florida, FL	25 m

Top 6 sites cover nearly 300 million people within a one half-life (11 hr) delivery radius¹

Products can also be driven further or flown as necessary



Circles represent distribution radii for facilities already producing Perspective products or scheduled to produce within next 18 months

Comparison to Existing Approaches

Isotope: Availability and scalability at Clinical Development Stages

Isotope Production methods

Large, centralized capital-intensive infrastructure such as reactors, cyclotrons, LINACs etc.

- Suitable for longer half-life isotopes (eg. Lu-177, I-131, Ac-225, Cu-64/67, Pb-203 etc.)
- Allows for national/international production, shipping of finished product
- Somewhat vulnerable as redundancy can be expensive
- Large capital investment required (subsidized by government currently)



Vs.

Generator-based supply that can be deployed locally or regionally (Portable or in-house permanent installation)

- Suitable for shorter half-life isotopes with appropriate decay schemes (eg. Tc-99m, Pb-212, Ga-68)
- Requires multiple manufacturing sites across a network & local/regional finished product
- Allows for flexibility and redundancy, improving reliability of patient dose supply

Can be scaled for multi-dose manufacture at regional CDMOs with permanent in-house Pb-212 generator: Perspective's approach for commercialization



Isotope and Finished Product Landscape: Commercial Supply

	Centralized Isotope and Manufacturing - Competitors	Cost	Pb-212-labeled Commercial Perspective Products
Parent Isotope Source	<ul style="list-style-type: none"> • Lu-177: Ytterbium-176 is expensive. Limited supply from Russian sources. Purification is a cumbersome process • Ac-225: Limited access to parent supplies such as Ra-226, U-233 	High-mid vs Low	<ul style="list-style-type: none"> • Th-228 available in very plentiful, pure supply • Allows for stockpiling of precursor parent isotope
Isotope Production Method	<ul style="list-style-type: none"> • Multiple production methods available, some lead to contaminants • Typically requires dedicated nuclear reactors or large accelerators 	High-mid vs Low	<ul style="list-style-type: none"> • No need for irradiation – Th-228 decays to Ra-224 and Pb-212
Purification of Isotope	<ul style="list-style-type: none"> • Extremely large hot cells required for initial separation • Can be off site at third parties in dedicated facilities 	High vs Mid	<ul style="list-style-type: none"> • Occurs on-site prior to finished product within existing CDMO facilities (commercial)
Isotope Shipping	<ul style="list-style-type: none"> • Isotope frequently shipped to site for finished product manufacture 	Mid vs Low	<ul style="list-style-type: none"> • Parent isotope at site already (commercial)
Finished Product Manufacturing	<ul style="list-style-type: none"> • Typically centralized at one large site 	Similar (1 \$\$\$ site vs multiple \$)	<ul style="list-style-type: none"> • Distributed network of scalable regional manufacturing sites
Logistics	<ul style="list-style-type: none"> • Distributed nationally 	Similar	<ul style="list-style-type: none"> • Distributed by regional facilities
Summary	Long supply chains, higher 3 rd Party risk, complex processing, less redundancy, more labor and capital intensive, less environmentally friendly, not scalable to demand	Higher up front for centralized approach, but similar costs post finished product	Short supply chains, vertical integration of activities, simple processing, greater redundancy, less capital intensive, more environmentally friendly, scalable to demand

