



ASX : SPL  
US OTC : SPHRY

# Delivering Meaningful Patient Outcomes with Advanced Dendrimer Technology

Bell Potter Healthcare Conference | 18 November 2024

CEO, Cheryl Maley

# Disclaimer and Forward-Looking Statements

This presentation contains forward-looking statements that involve risks and uncertainties. Although we believe that the expectations reflected in the forward-looking statements are reasonable at this time, Starpharma can give no assurance that these expectations will prove to be correct. Actual results could differ *materially* from those anticipated. Reasons may include risks associated with drug development and manufacture, risks inherent in the regulatory processes, delays in clinical trials, risks associated with patent protection, future capital needs or other general risks or factors.

# Our Mission

**“To help patients with significant illnesses, such as cancer, achieve improved health outcomes and quality of life through the application of our unique dendrimer technology.”**

# Starpharma is an Innovative Australian Biotechnology Company with 20 Years of Experience in Advancing Dendrimer Technology from the Lab to the Patient

Ticker Symbol	ASX: SPL US OTC: SPHRY
Industry/Sector	Healthcare, Pharmaceuticals, Biotechnology
Market Capitalisation	~A\$40M
Share Price	~A\$0.10
Total Ordinary Shares On Issue	417M
Cash Balance (30 Sept 2024)	A\$24.0M

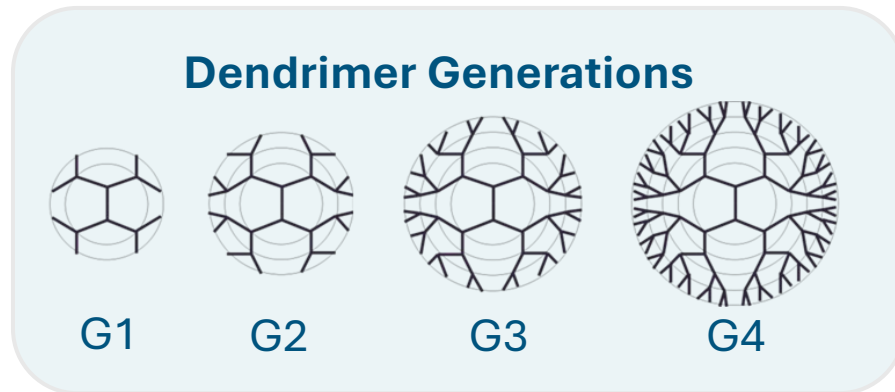


# Starpharma's DEP<sup>®</sup> Platform Technology: What Is It and How Does It Benefit Patients?



# Starpharma – Founders and Experts in Dendrimer Drug Delivery

Dendrimers are highly branched (tree-like) macromolecules with a well-defined, 3D structure



- Concentric layers of lysine monomers
- Drugs, payloads, and/or targeting moieties attached via tailored linker strategies to achieve enhanced tumour targeting and pharmacokinetics (PK)
- Easily scalable, precisely manufactured, and Good Manufacturing Practice (GMP) certified



## Clinically validated technology

More than 350 patients treated with DEP® across multiple clinical programs.



## Strong intellectual property position

19 active patent families with over 150 granted patents and more than 40 patent applications pending.



## Uniquely experienced team

Expertise in dendrimer science.  
Staff of ~40 people.



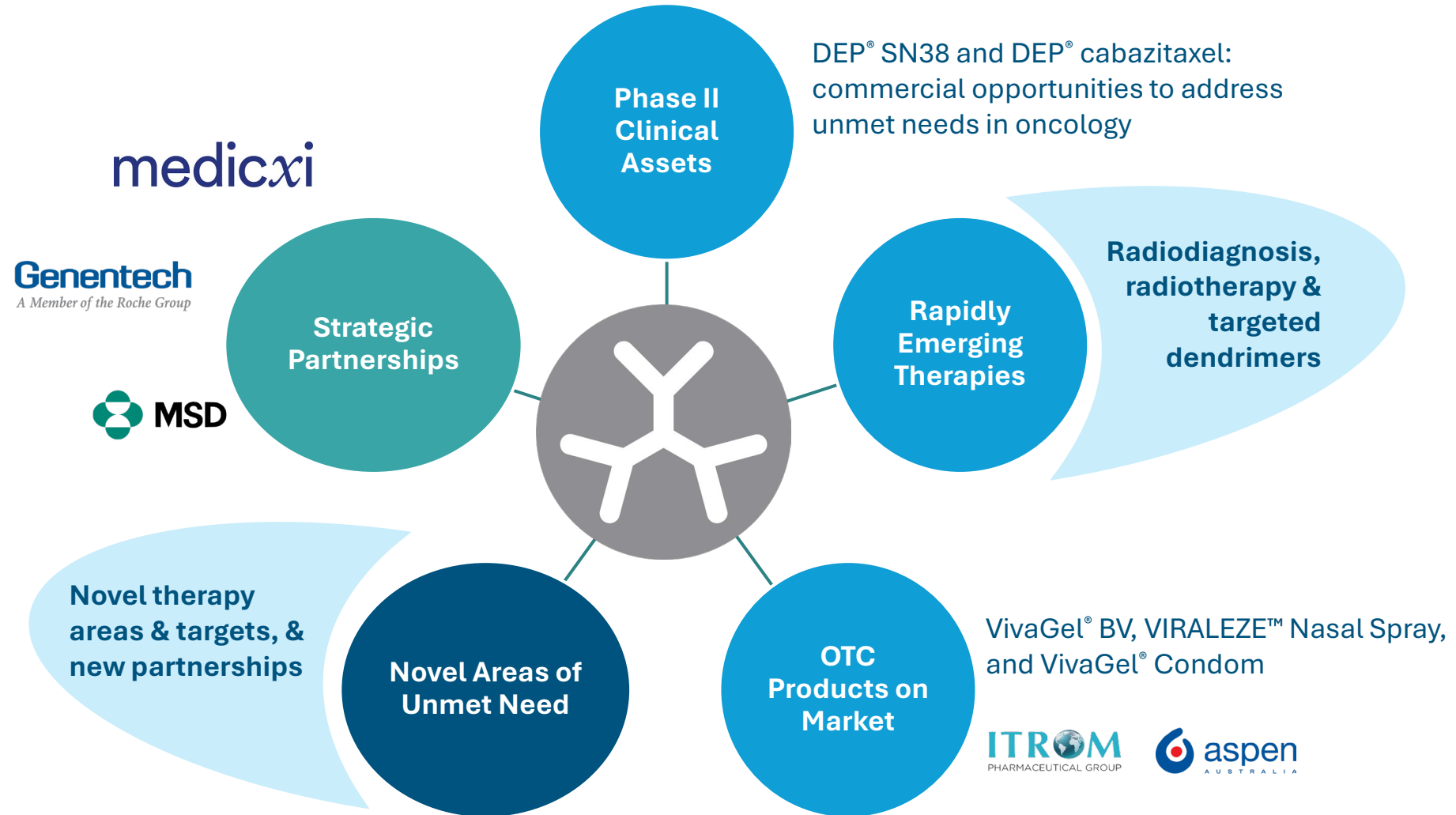
## Pipeline of products and partnerships

Portfolio includes clinical-stage assets, early-stage research, partnerships, and commercial products.



# Starpharma's DEP® Platform Technology: Versatile and Multifunctional for Delivery of Therapeutics and Diagnostics

## *Multiple Revenue Streams: Maximising Shareholder Returns*



# Starpharma's Oncology Portfolio: Addressing Areas of High Unmet Clinical Need

## Three Clinical Assets and Three Pipeline Assets

Product	Target indication	Research	Preclinical	Phase I	Phase II	Phase III	Strategy
DEP <sup>®</sup> SN38	Ovarian and colorectal	Phase II results reported					License/co-develop – ovarian, colorectal
DEP <sup>®</sup> cabazitaxel	Prostate and ovarian	Phase II results reported					License – prostate, ovarian
DEP <sup>®</sup> HER2 radiodiagnostic	Diagnostic						Optimise and accelerate to clinical
DEP <sup>®</sup> HER2 radiotherapeutic	Solid cancers						Advance to clinical
DEP <sup>®</sup> HER2 ADC	Solid cancers						Advance to preclinical
DEP <sup>®</sup> docetaxel	Pancreatic and other cancers	Phase II results reported					Lower priority



# DEP<sup>®</sup> SN38 & DEP<sup>®</sup> cabazitaxel

## Global Commercial Opportunity



**DEP<sup>®</sup> SN38**  
**DEP<sup>®</sup> cabazitaxel**

Both assets were developed using the DEP<sup>®</sup> technology to improve existing oncology products.



**Partnering**

Starpharma has created value through proof-of-concept and is seeking to license both products.



**Promising**  
**Phase II Results**

Phase II studies for each asset showed promising results of improved tolerability over the original compounds and comparable or improved efficacy. Trials have generated promising anti-cancer efficacy in very late-stage patients who have been heavily pre-treated.



**Value**  
**Proposition**

For a partner, both assets provide opportunity for new indications, new markets, and product life cycle extension.

### DEP<sup>®</sup> SN38 Phase II Results

**Clinically meaningful outcomes were achieved for patients who were heavily pre-treated prior to entering the trial and had few options.**

Promising efficacy in patients with irinotecan-treated CRC and platinum-resistant/refractory ovarian cancer.

Well-tolerated with mostly mild/moderate gastrointestinal AEs, no cholinergic toxicity.

### DEP<sup>®</sup> cabazitaxel Phase II Results

**Clinical benefit even in patients previously exposed to taxanes, including standard cabazitaxel.**

Promising efficacy in patients with mCRPC, ovarian and gastro-oesophageal cancers.

Well-tolerated with mostly mild/moderate AEs, no routine steroid premedication.

### Indication Evaluation



**Advanced**  
**colorectal cancer**



**Platinum-resistant**  
**ovarian cancer**



**Metastatic**  
**castration-**  
**resistant prostate**  
**cancer**



**Platinum-resistant**  
**ovarian cancer**



**Advanced gastro-**  
**oesophageal**  
**cancer**

## DEP<sup>®</sup> SN38 Phase I/II Trial Patients – Advanced, Heavily Pre-treated, and Most CRC Patients had Progressed Following Prior Treatment with Irinotecan

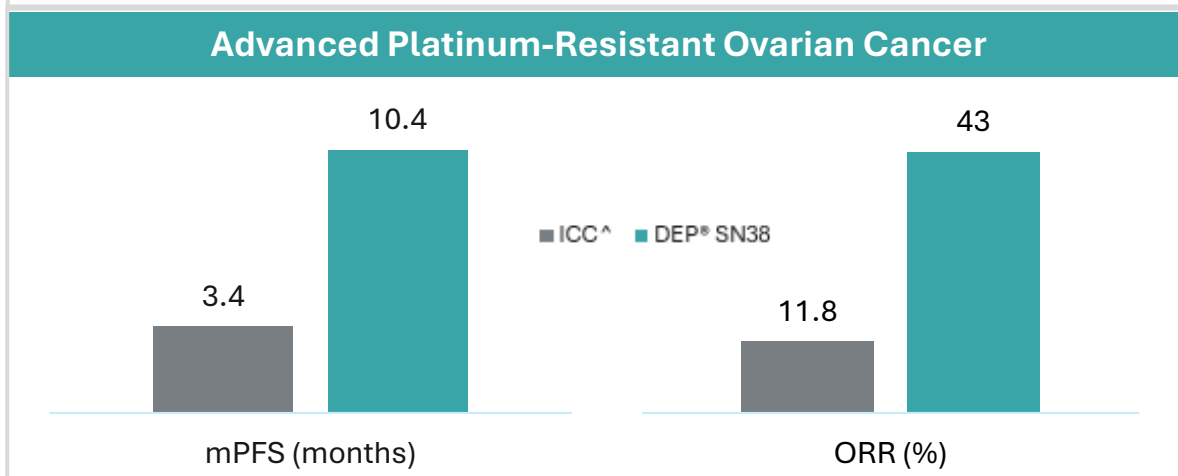
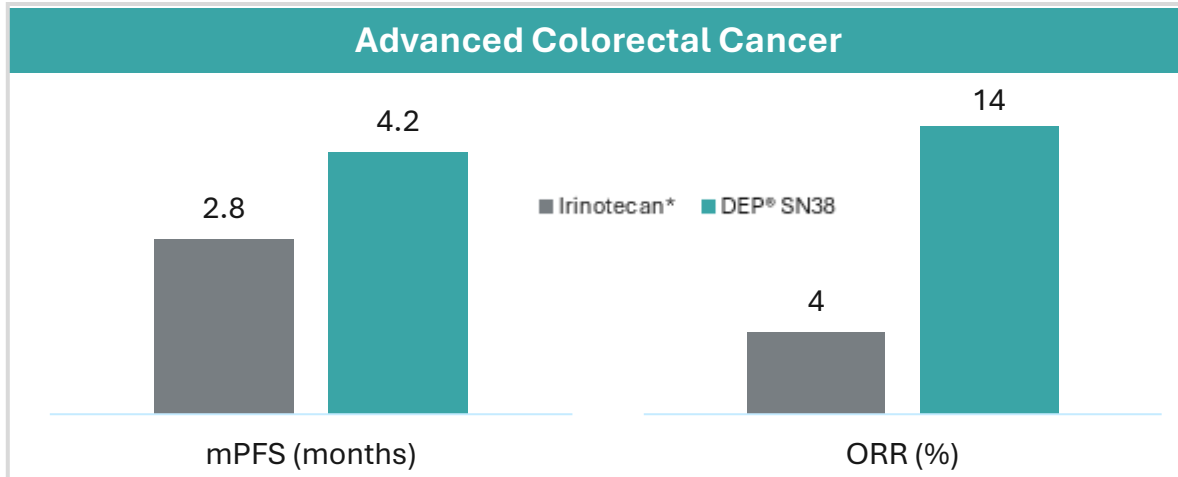
BASELINE CHARACTERISTICS		COLORECTAL	OVARIAN	PANCREATIC	BREAST	OTHER <sup>1</sup>	TOTAL
Subjects enrolled (n, %)		55 (48%)	23 (20%)	15 (13%)	8 (7%)	13 (11%)	114 (100%)
Subjects ongoing (n, %)		0 (0%)	1 (4%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)
Age (years)	Median	59	64	65	53	60	61
	(range)	(31-78)	(42-74)	(48-76)	(42-66)	(38-73)	(31-78)
Sex (n, %)	Male	24 (44%)	0	8 (53%)	0	9 (69%)	41 (36%)
	Female	31 (56%)	23 (100%)	7 (47%)	8 (100%)	4 (31%)	73 (64%)
ECOG PS	0	23 (42%)	6 (26%)	6 (40%)	2 (25%)	-	40 (35%)
	1	32 (58%)	17 (74%)	9 (60%)	6 (75%)	2	74 (65%)
Stage at diagnosis	III	2 (4%)	4 (17%)	0 (0%)	0 (0%)	2 (15%)	8 (7%)
	IV	53 (96%)	19 (83%)	15 (100%)	8 (100%)	11 (85%)	106 (93%)
Prior systemic therapy (n, %)	Irinotecan	54 (98%)	0 (0%)	11 (73%)	0 (0%)	3 (23%)	68 (60%)
	Platinum	29 (53%)	23 (100%)	9 (60%)	0 (0%)	12 (92%)	73 (64%)
	Taxanes	0 (0%)	23 (100%)	2 (13%)	7 (88%)	9 (69%)	41 (36%)
Prior lines of therapy	Median (range)	4 (2-9)	6 (3 to 9)	2 (2 to 5)	7 (3 to 12)	3 (1 to 6)	4 (1 to 12)

<sup>1</sup>Other cancer types included lung, upper gastrointestinal, and kidney.

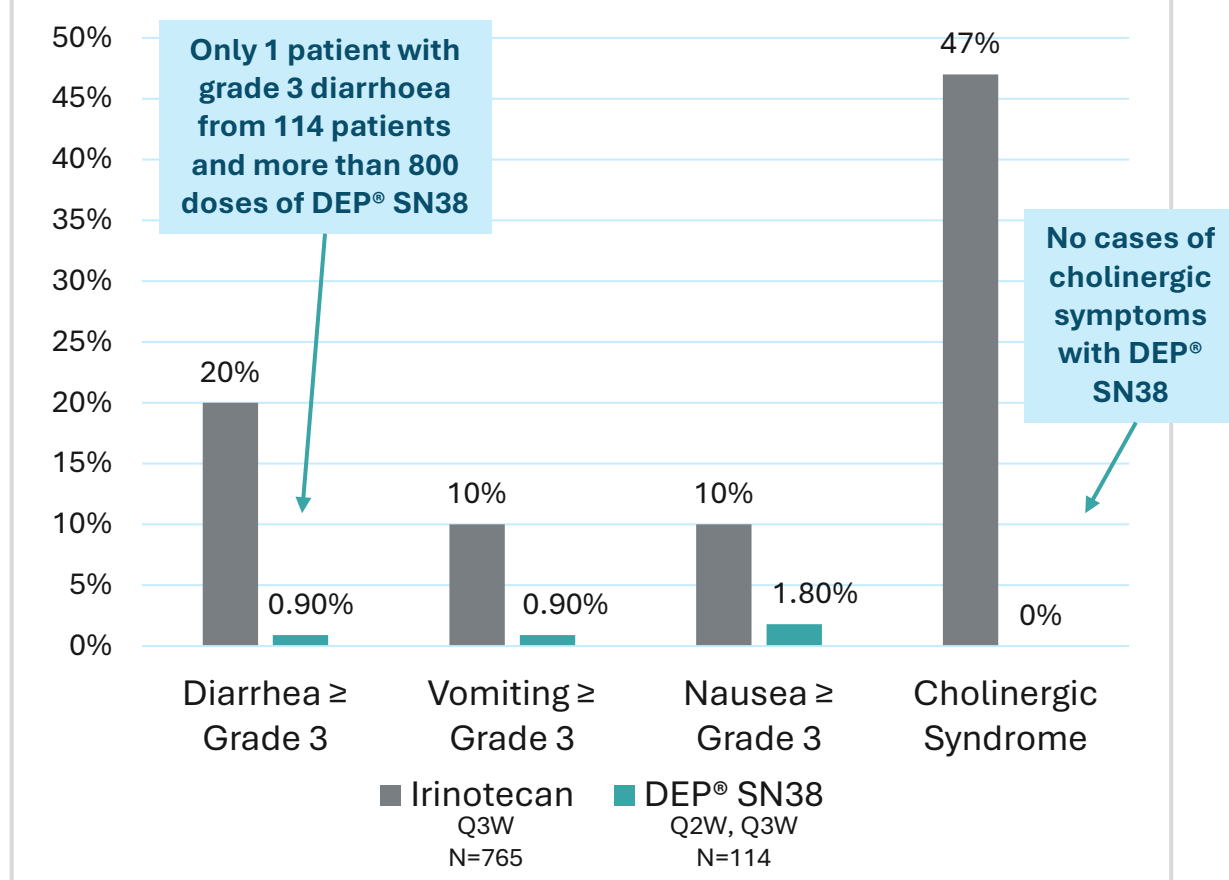
# DEP<sup>®</sup> SN38 Phase II Study Shows Favourable Efficacy and Tolerability Data in Late-Stage Patients

## Results Presented at the 2024 ASCO Annual Meeting

2024 ASCO<sup>®</sup>  
ANNUAL MEETING



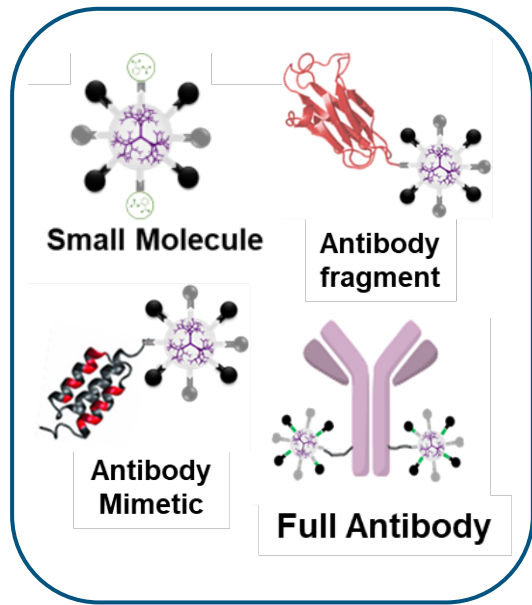
### Gastrointestinal Toxicity Profile Significantly Improved with DEP<sup>®</sup> SN38 Treatment, Compared to Published Data on Irinotecan<sup>#</sup>



Data for DEP<sup>®</sup> SN38 in combination with 5-FU/LV; Full Phase II results reported in ASX Announcement dated 27 May 2024; \*From published data on irinotecan in combination with 5-FU/LV, Tournigand et al., *Clin Oncol*, 2023, 41(19):3469-3477; # <https://www.medicines.org.uk/emc/product/6506>- UK SmPC April 2022

<sup>#</sup>From published data on ICC (investigator chemotherapy of choice) (pegylated liposomal doxorubicin, 11 paclitaxel, or topotecan), Pujade-Lauraine E, et al., *J Clin Oncol*, 2014, 32(13):1302-1308;

# Benefits of Starpharma's DEP<sup>®</sup> Platform Technology Extend to Radiopharmaceuticals



Broad Applicability in Drug Development

Ability to use a wide range of targeting moieties

Site-specific attachment of dendrimer on targeting moiety

DEP<sup>®</sup> dendrimers are precisely manufactured and easily scalable

Drug-linker strategy flexibility

Flexibility in chelator type

Can select drug payload and radioisotope for the desired application



Key Characteristics Valued by Collaborators

# Addressing the Biodistribution Challenges of Current Approaches with DEP® Radiotheranostics

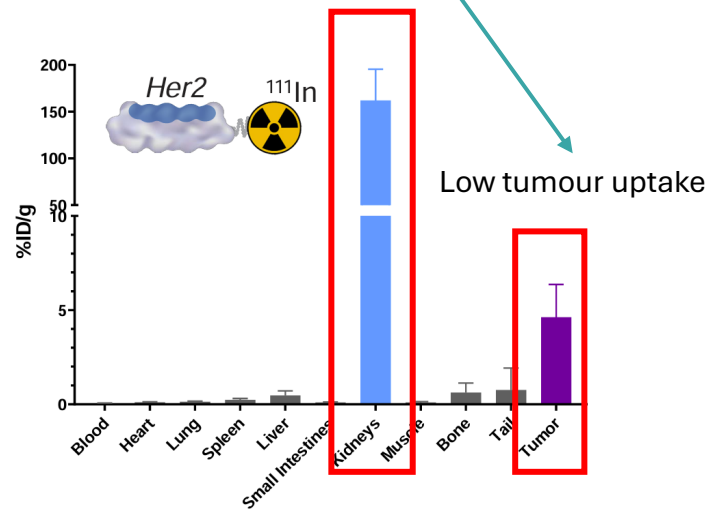


## Biodistribution Challenges with Current Approaches:

Tumour:Kidney ratio **highly negative**

High kidney exposure

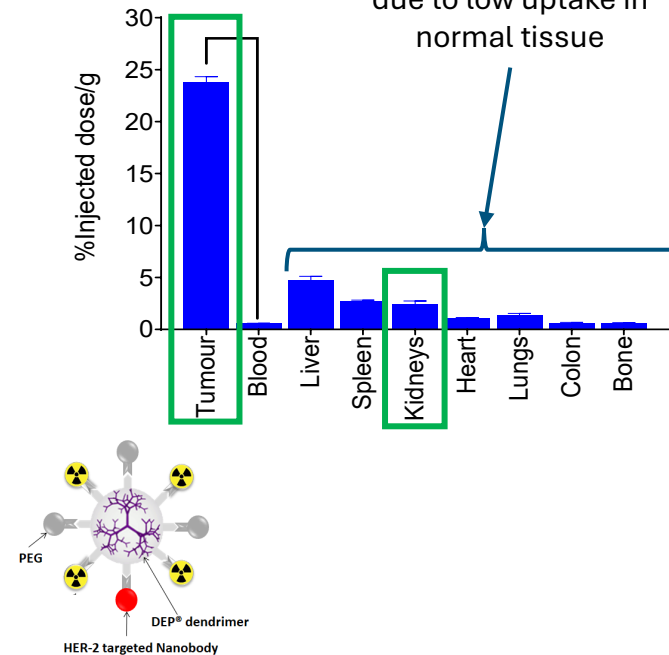
Low tumour uptake



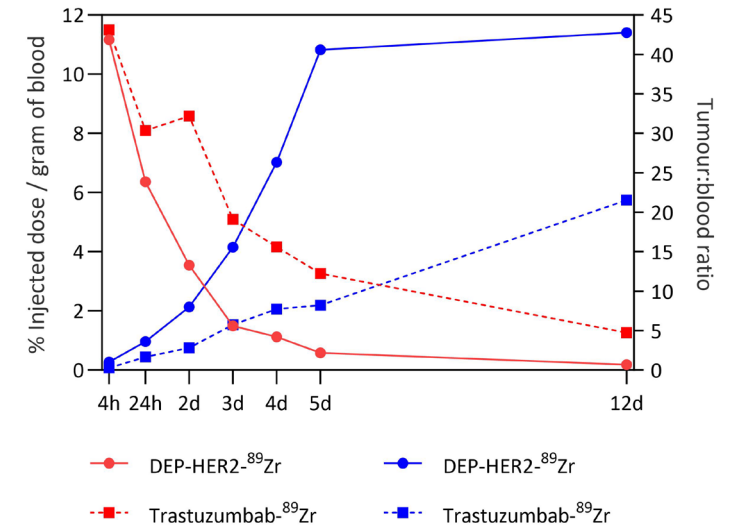
## Starpharma's DEP® Technology Solution:

Tumour:Blood ratio >40

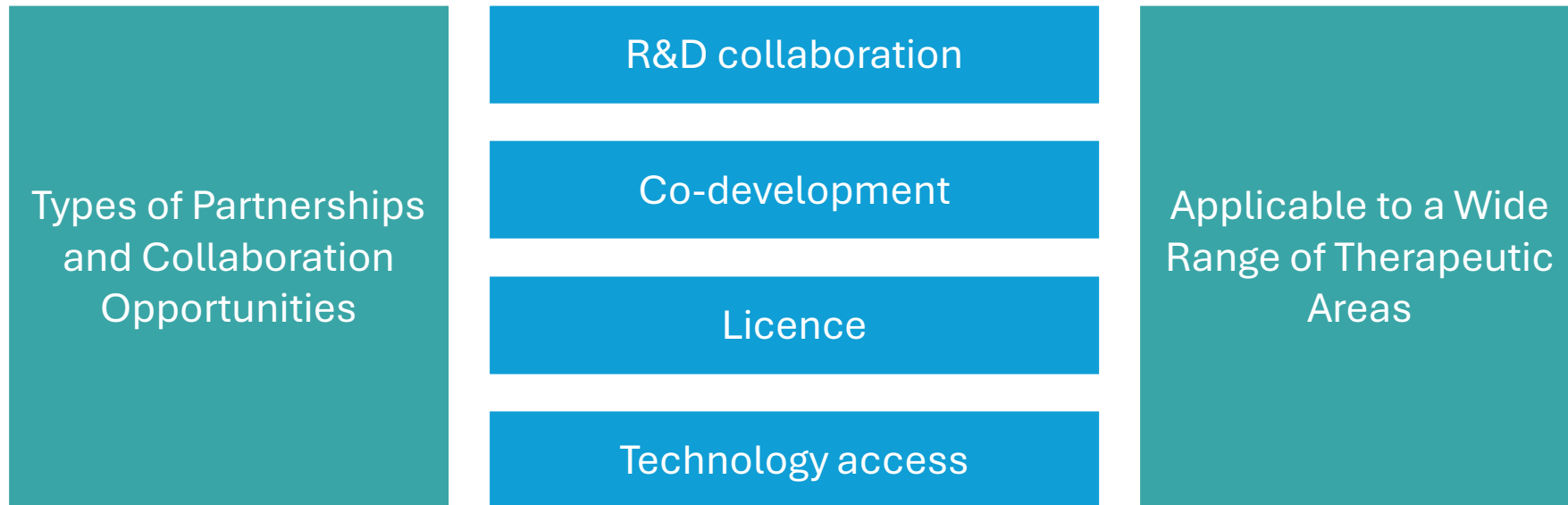
Tumour:Kidney/Organ ratios **highly positive** due to low uptake in normal tissue



**DEP® HER2 radiodiagnostic: faster clearance from blood and sustained elevated tumour: blood ratios compared to trastuzumab-<sup>89</sup>Zr**



# Extensive Partnership Experience, Broad DEP<sup>®</sup> Application Opportunity and a Flexible Approach to Collaboration



Partnerships

**Genentech**  
*A Member of the Roche Group*

**medicxi**

 **MSD**

# Well Positioned to Accelerate Product Pipeline and Strategic Growth Initiatives

3-Year Summary	FY24 \$M	FY23 \$M	FY22 \$M
Revenue and other income	9.8	4.3	5.2
Loss for the period	(8.2)	(15.6)	(16.2)
Net operating cash outflows	(7.0)	(14.3)	(13.2)

## Multiple Revenue Streams

- Licenses and Milestone Payments
- Marketed Products: VivaGel<sup>®</sup> BV and Viraleze<sup>™</sup>
- R&D Income

**Cash at 30 September 2024: \$24.0M**



# Recent Strategic Review Confirmed Three Key Focus Areas to Optimise Shareholder Returns

01

Maximise DEP<sup>®</sup>  
asset value

*Prioritising DEP<sup>®</sup> SN38 and DEP<sup>®</sup>  
cabazitaxel*

02

Accelerate early  
asset  
development

*Advancing DEP<sup>®</sup>  
radiopharmaceuticals and  
partnerships*

03

Build long-term  
sustainability

*Increasing revenue,  
strengthening IP position, and  
fostering a high-performance  
culture*

# Catalysts to Anticipate in The Next 12 Months

## *Poised for Value Creation*

Over 20 years of experience in advancing dendrimer technology from the lab to the patient.

☑ Clinical and commercial validation of platform technology.



1) License / collaboration for a DEP<sup>®</sup> asset to commercialise



2) Radiodiagnostic progress to the clinic



3) Strategic partnership – expansion and/or licence



4) New VivaGel<sup>®</sup> BV EU Partner



5) Increasing revenue contributing to sustainability



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# Thank you.

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