

Corporate Presentation

June 2023

PeptiDream Inc.

(TSE : 4587)



PeptiDream

PeptiDream - Investment Highlights

Global Leader in the Discovery and Development of Macrocyclic Peptide Therapeutics



Industry Leading Peptide Discovery Platform

PeptiDream's proprietary Peptide Discovery Platform System (PDPS) technology

- Unparalleled peptide library generation (trillions) and hit finding platform
- Unrivaled # of building blocks
- Continuous evolution of the technology, translating learnings from advancing programs back into the platform improvements
- World-class chemistry, biology, bioinformatics, structural biology, modeling, profiling and ADME teams to turn hit peptide candidates into development candidates

Strong IP portfolio

Foundational in Leading and Expanding the Field

PeptiDream at the center of a large and diverse network of discovery and development partnerships

- Collaborations with large, mid, and small sized pharma companies all over the world creating the ecosystem
- Licensing of the PDPS discovery platform to global and Japan pharma partners solidifies the network around a common platform.
- Further grow the network and modality through strategic partnerships
- Develop products in house and license to network partners

Diverse Big Pharma-Sized Pipeline

PeptiDream has a large diverse pipeline of programs spanning peptide modality, disease areas and development partners

- Over 120+ discovery and development programs
- Spans variety of peptide modalities, from peptide therapeutics to peptide-drug conjugates (PDCs) to multi-functional peptide conjugates (MPCs)
- Across broad range of therapeutic areas and discovery and development partners

Markets 24 radiodiagnostic and 8 radiotherapeutic products in Japan through PDRadiopharma

Business Model Driving Profitability and Growth

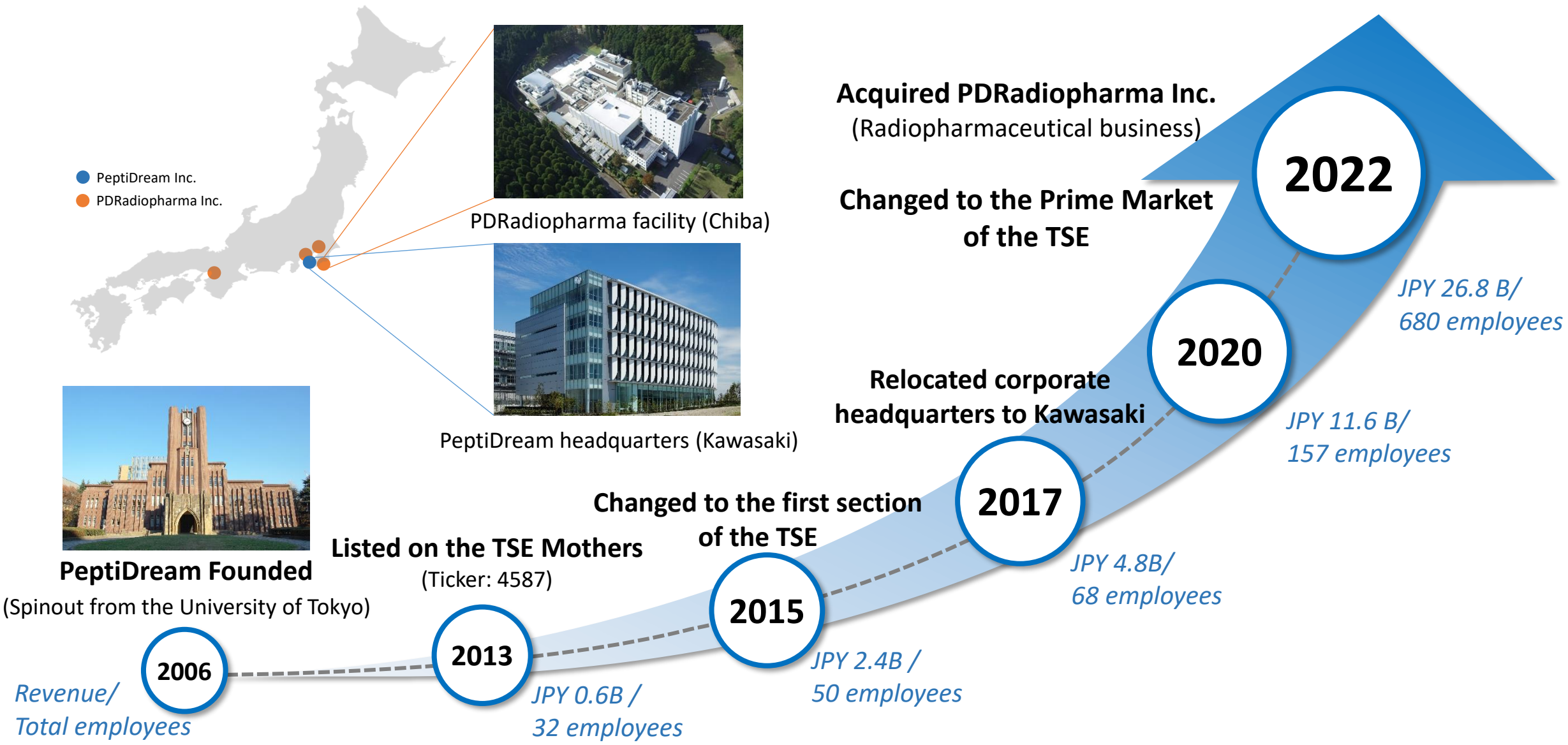
PeptiDream's unique multifaceted business model has allowed company to be profitable since 2011

- Year over year growth in revenue and profits from three complementary and synergistic business strategies
- Grow the business and the pipeline through partnerships and cash flow, not through capital raises
- Phenomenal growth potential as the pipeline matures

Japan radiopharmaceutical and radiodiagnostic business provides stable, positive cash flow

PeptiDream – Historical Snapshot

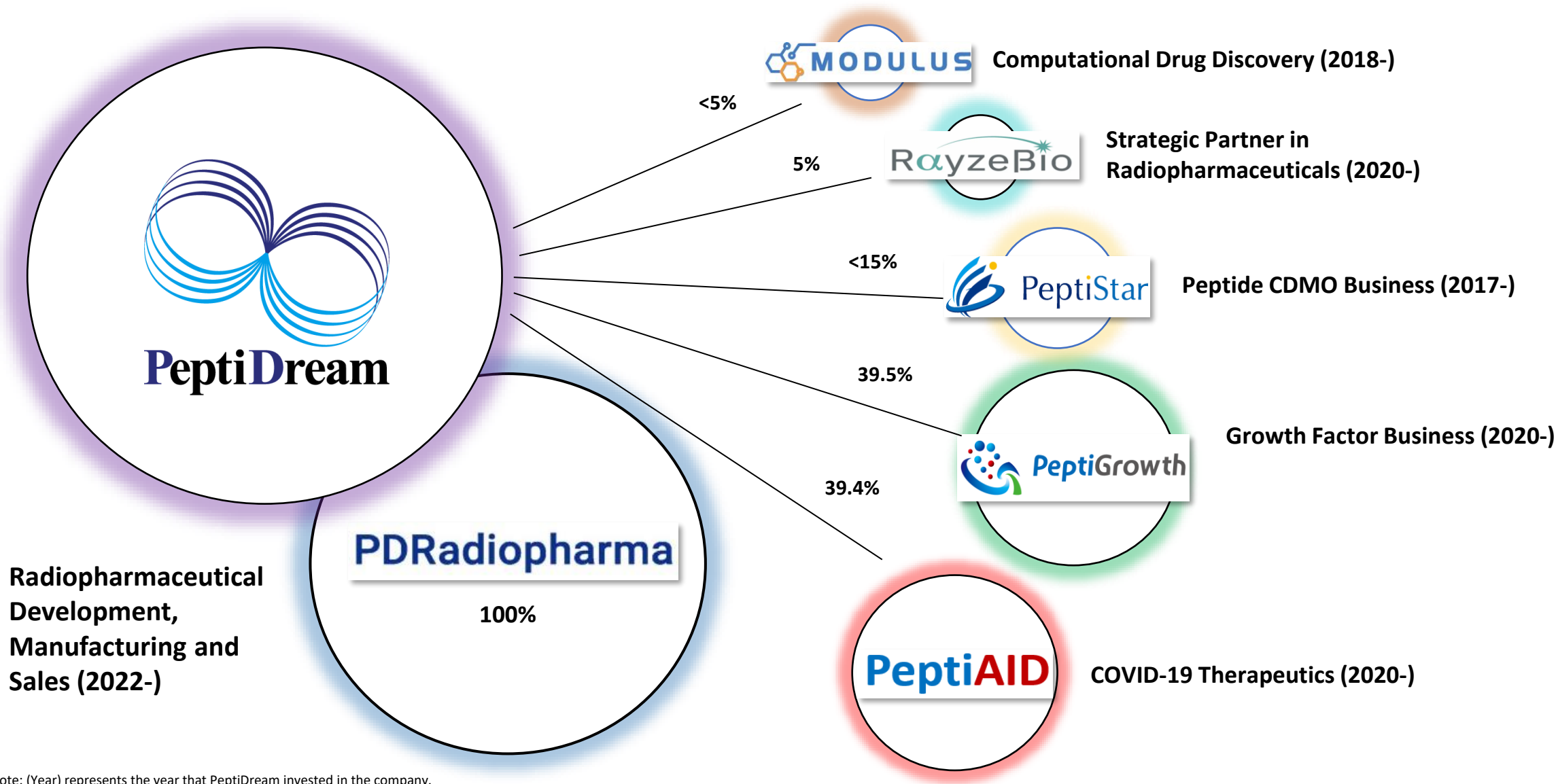
From University Startup to Growing Japan-Based Drug Discovery Powerhouse



Note: Financial numbers prior to FY2021 are based on JGAAP, IFRS is applied after FY2022.

PeptiDream's Equity Holdings

Wholly-Owned, Affiliated, and Strategic Ownership Stakes in Peptide-Related Companies

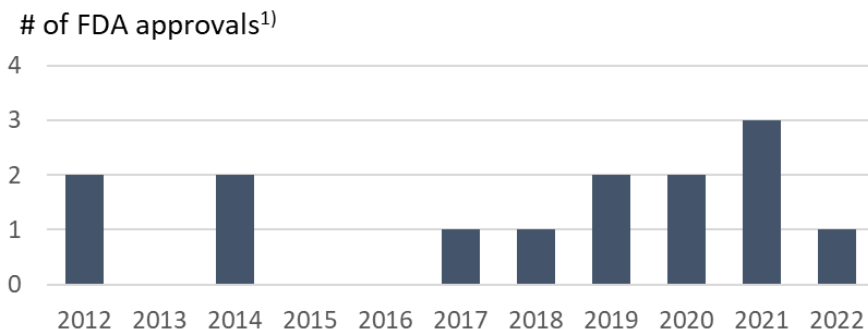


Note: (Year) represents the year that PeptiDream invested in the company.

Macrocyclic Peptides as an Expanding Drug Class

Several Approved Macrocyclic Peptide Drugs With Over \$1B in Annual Sales

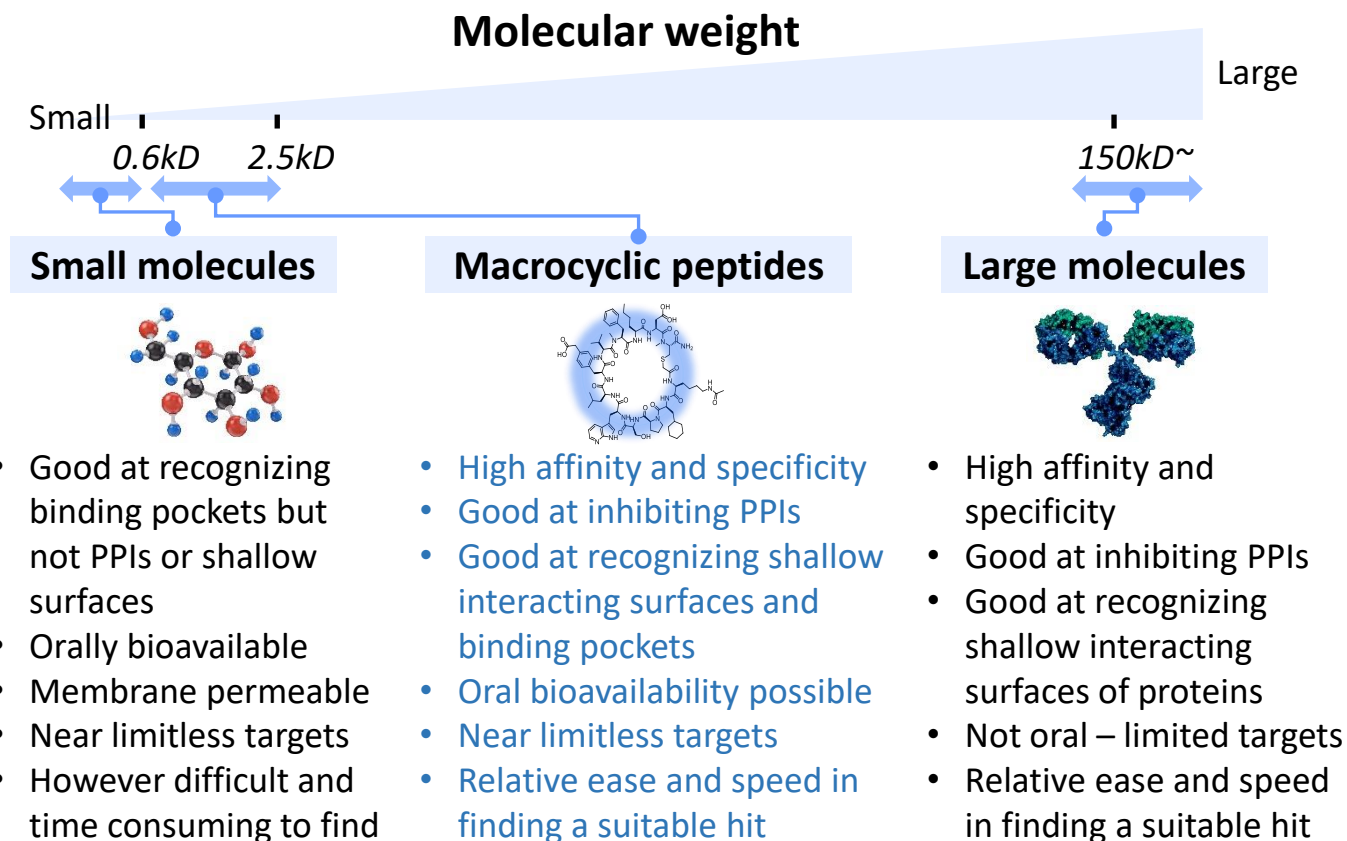
Long History of Macrocyclic Peptides As Drugs



Blockbuster Macrocyclic Peptides

Drug name	Indication	Peak Sales (\$M)
Restasis (cyclosporine)	Chronic dry eye	1,488
Somatuline (lanreotide)	Acromegaly; Neuroendocrine tumors	1,424
Sandostatin (octreotide)	Acromegaly; Symptoms of Carcinoid tumors and VIPomas	1,413
Sandimmune/Neoral (cyclosporine)	Transplant rejection	1,338
Cubicin (daptomycin)	complicated skin and skin structure infections (cSSSI)	1,187

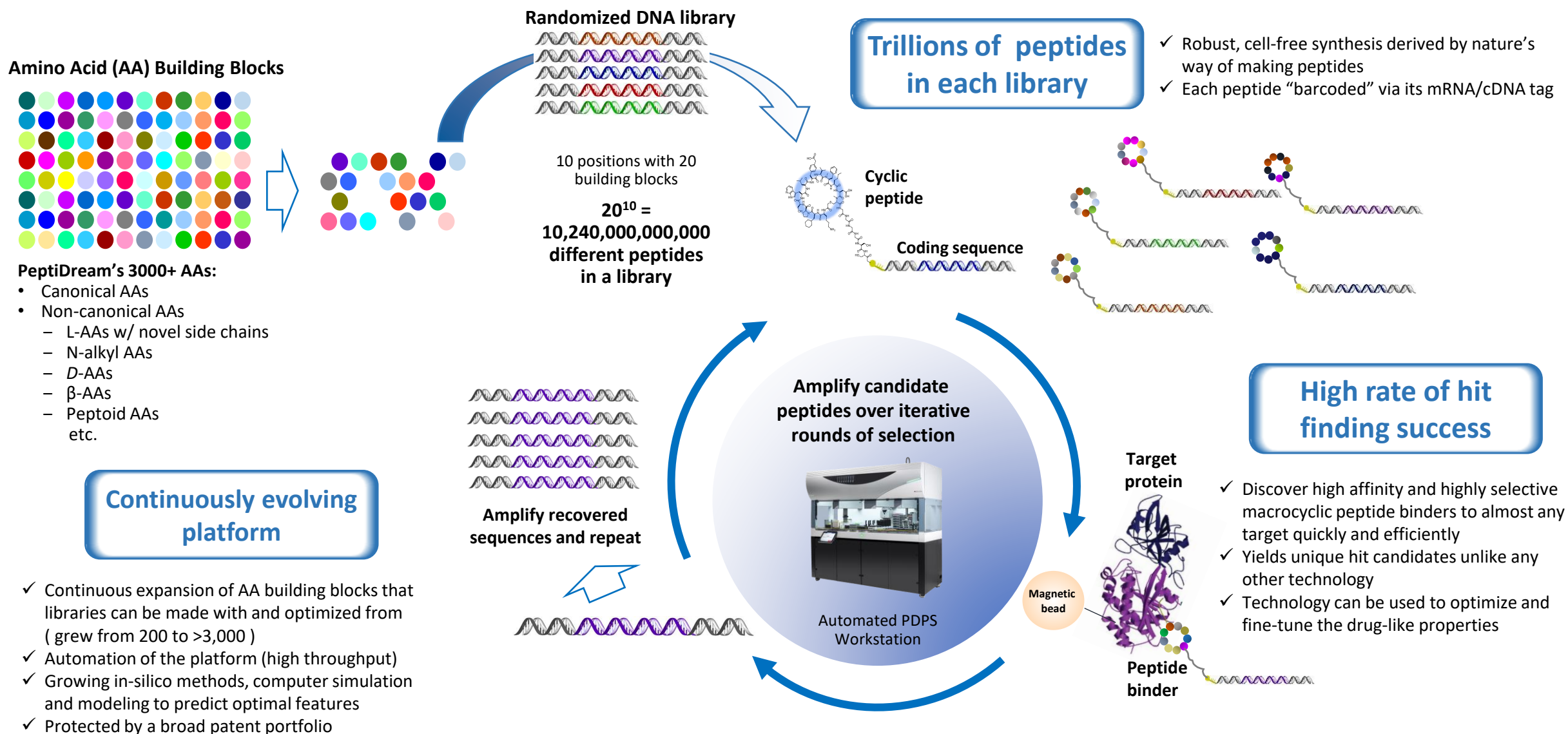
Macrocyclic Peptides Have Positive Features of Both Small & Large Molecules



Most approved macrocyclic drugs arose from natural products, limiting discovery!

PDPS is a Powerful Peptide Discovery Platform

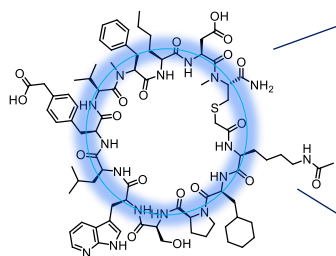
Unparalleled Macrocytic Peptide Library Generation and Hit Finding Technology



The Expanding Applications of Macrocyclic Peptides

Turning PDPS Identified Seeds Into a Growing Array of Peptide Therapeutics

PDPS Identified
Macrocylic
Peptide Seeds



Peptide Drugs

Small Molecule Drugs

PDCs

Peptide-RI

Peptide-Oligo

Peptide-Cytotoxic

MPCs

Bifunctional

Trifunctional

Key Advantages

- **Affinity and selectivity** comparable to antibodies
- Unique epitopes and **MOAs**
- Differentiating PK & ADME characteristics
- **Oral administration** & other routes possible
- Enable small molecule discovery

- **Peptide ideal at targeting and payload delivery**
- More amenable to a greater array of payloads compared to other modalities.
- Simple robust conjugation chemistry
- Tunable PK/ Differentiating route of elimination
- **RI-PDC: Ideal fit** with radioisotope payloads
- **Oligo-PDC:** Enable **delivery of oligonucleotide/siRNA** drugs to specific tissues/cells
- **Cytotoxic-PDC:** unique beneficial attributes

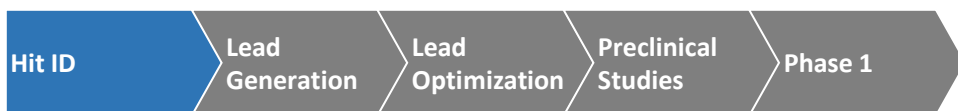
- Extremely powerful and modular
- Design and generate **multi-functional peptide drugs** by conjugating/linking several peptides with different MOAs together
- Various configurations, such as bifunctional, trifunctional, and more

Expansion of R&D Capabilities

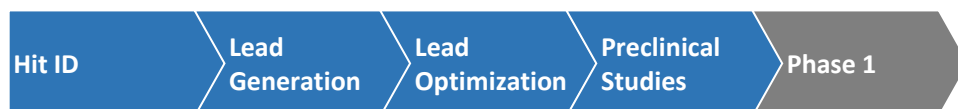
Unlocking Greater Value and Increasing Control

PeptiDream's role in collaborations has increased over time

R&D Capabilities (2010)

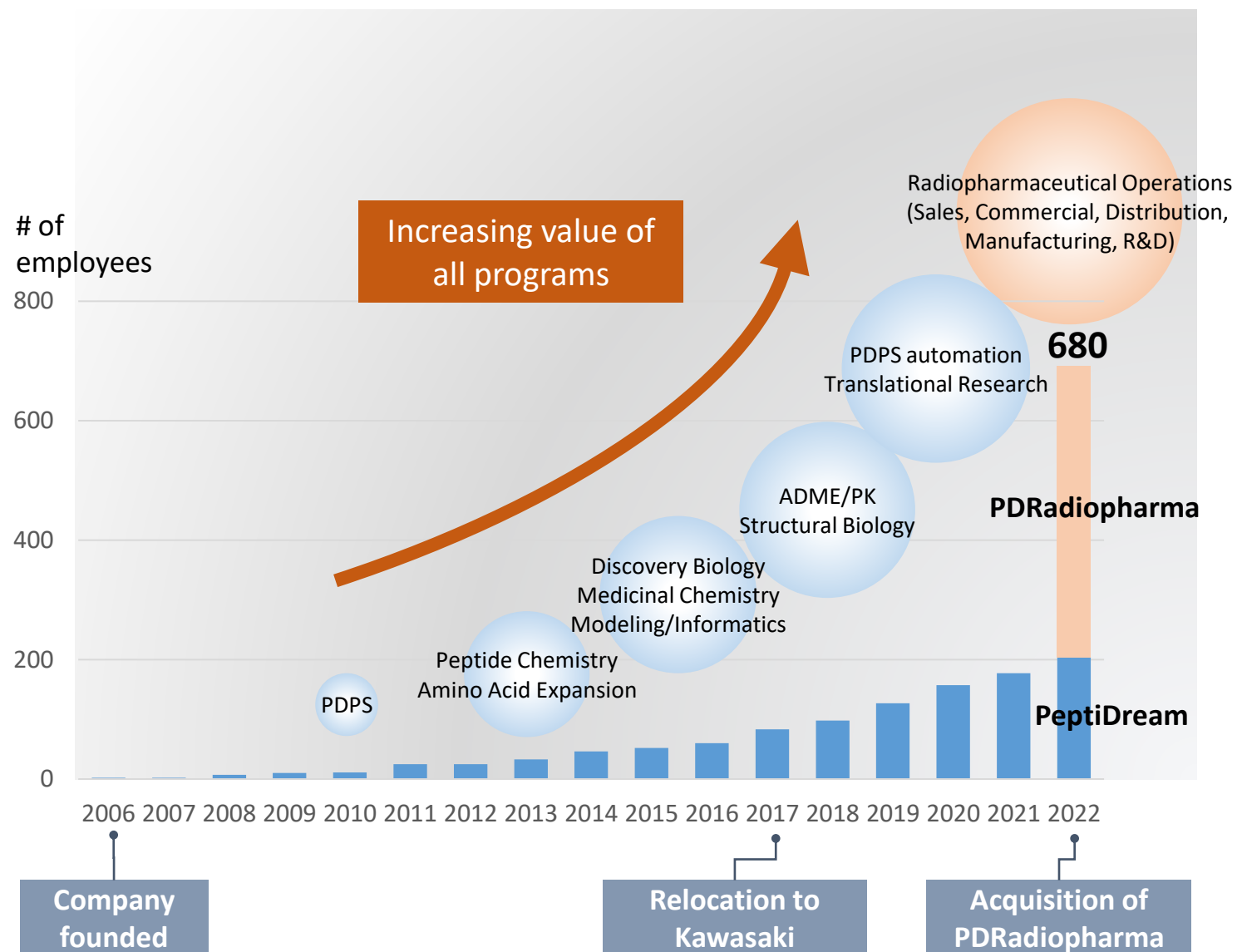


R&D Capabilities (2022)



Increasing research capabilities allows for:

- Greater role in partnerships
- More control over program progress
- Larger deal financials
- Ability to take internal programs further before partnering/ out-licensing



Unique Multifaceted Business Model

Business Model Spread Across 4 Strategies



Drug Discovery and Development Business Segment

- 1 Collaboration Drug Discovery and Development
- 2 PDPS Technology Licensing
- 3 Strategic Alliance/ In-House Program

Radiopharmaceuticals Business Segment

100%

PDRadiopharma

- 4 R&D, Manufacturing and Sales of Radiopharmaceuticals/Diagnostics

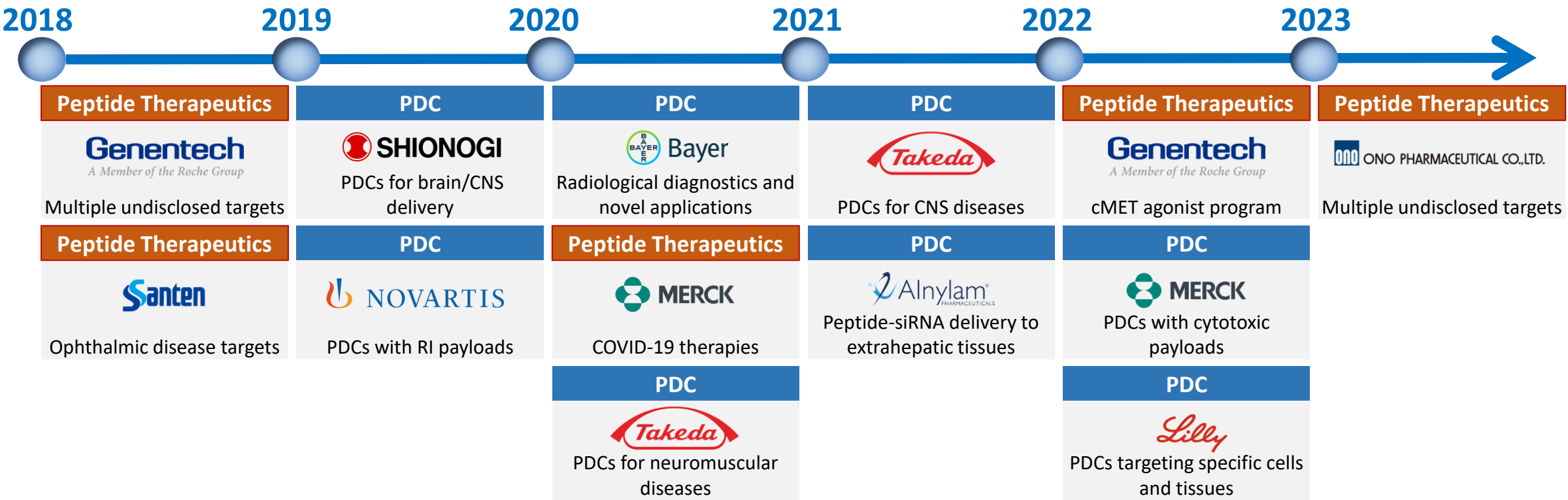
Revenue Source		
Short-term	Mid-term	Long-term
Upfront Research funding Preclinical milestones	Development milestones	Royalties
Licensing and maintenance fees	Development milestones	Royalties
	Out-licensing fee, development milestones	Royalties
Product Sales (Existing products)	Product Sales (In-licensed products)	Product Sales (PeptiDream products)

1 Collaboration Drug Discovery and Development

Combining PeptiDream’s Expertise With Big Pharma’s Drug Development Know-How and Capabilities

- **Lead & Expand:** Leadership position in the space – drive expansion of macrocyclic peptide ecosystem
- **More Programs:** Allows PeptiDream to work on a larger number of programs with less staff/resources than otherwise possible
- **Build Expertise:** Continuously build in-house expertise by working with and learning from big pharma
- **Diversify Risk:** Diversify business risk with a broad portfolio of programs and partners (success not tied to any one program or partner)

5-Year Snapshot

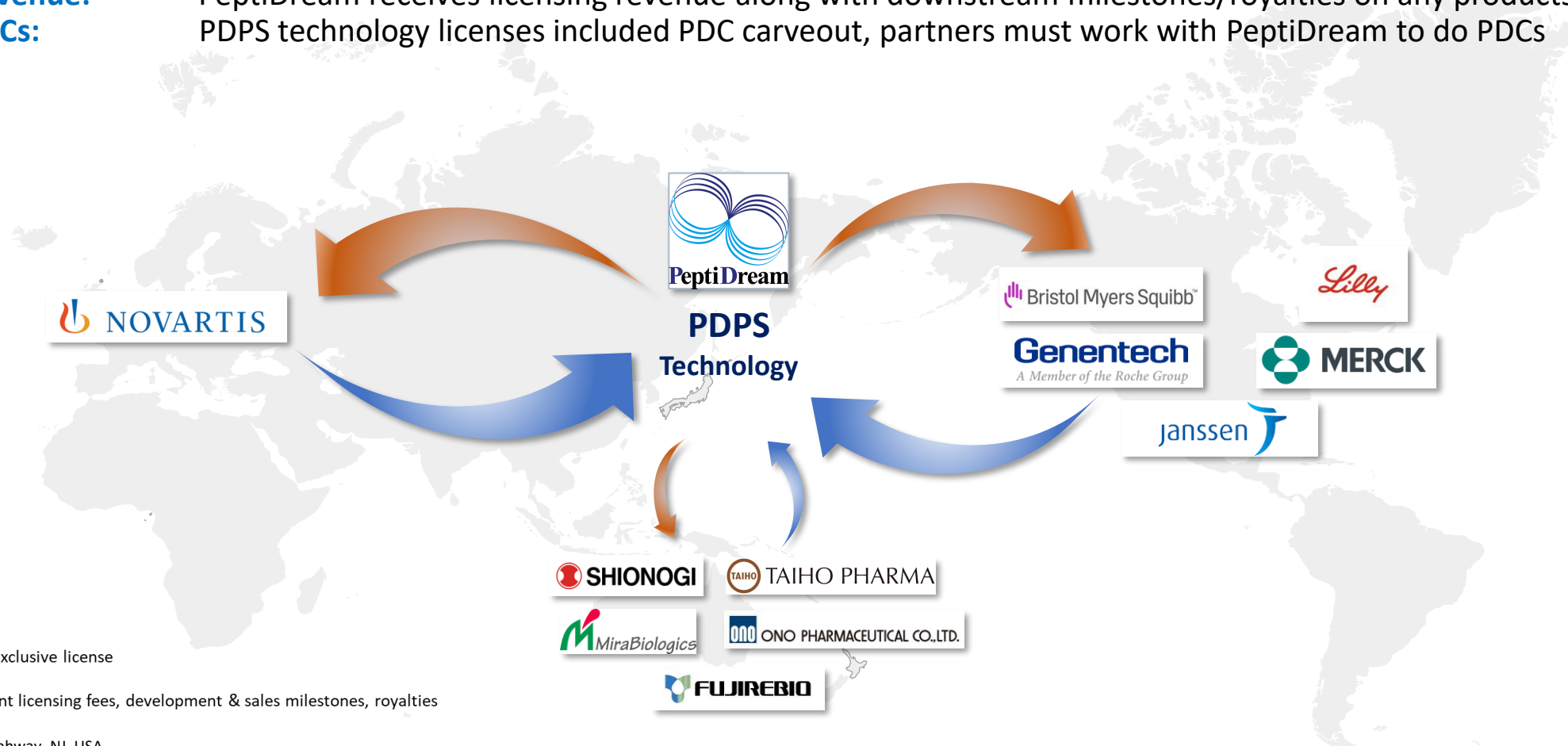


Note: Merck & Co., Inc., Rahway, NJ, USA.

2 PDPS Technology Transfer/Licensing

Transfer and Establish Operation of PDPS Technology Within Partner Companies

- **Platform Validation:** Non-exclusively licensed PDPS technology to 11 companies
- **Establish as Standard:** Make PDPS technology the global standard to discover macrocyclic peptides
- **Grow People:** Partners expand staff, resources, capabilities around PDPS and peptide discovery and development
- **Licensing Revenue:** PeptiDream receives licensing revenue along with downstream milestones/royalties on any products
- **Carveout PDCs:** PDPS technology licenses included PDC carveout, partners must work with PeptiDream to do PDCs



3 In-House/Strategic Discovery and Development

Growing and Accelerating In-house Discovered Programs Through Strategic Partnerships

- **Access expertise/technology:** Access to expertise and/or technology/know-how PeptiDream does not possess
- **Increased Speed/Control:** Streamlined focus and decision making, defined roles, greater control = program acceleration
- **Greater Upside:** Faster and greater monetization of programs at lower cost/risk

In-House Programs

Develop internally and out-license to third party for clinical development

Jan 2018



- Started internal program to develop GhR antagonists

Dec 2020



- Formed strategic partnership with licensing option
- Amolyt exercised license option, initiated IND enabling studies, entering clinic in 2023

Sep 2021

Strategic Partnership

Joint - Development and out-license to third party for clinical development

Feb 2016



May 2019

- Started research collaboration
- Successfully identified TfR binding peptides that could deliver to muscle and CNS

Dec 2020



Jul 2021



- Exclusive research and license deal to peptide-oligo PDCs for neuromuscular diseases
- Extended deal to certain CNS targets

Preclinical Collaboration

Joint – Development and partner takes over clinical development

Jul 2017

- Started research collaboration with Biohaven

Jun 2019

- Identified CD38-ARM™ as clinical candidate

Feb 2020

- IND authorization obtained for CD38-ARM™

Sep 2020

- Orphan Drug Designation by FDA to CD38-ARM™

Oct 2021

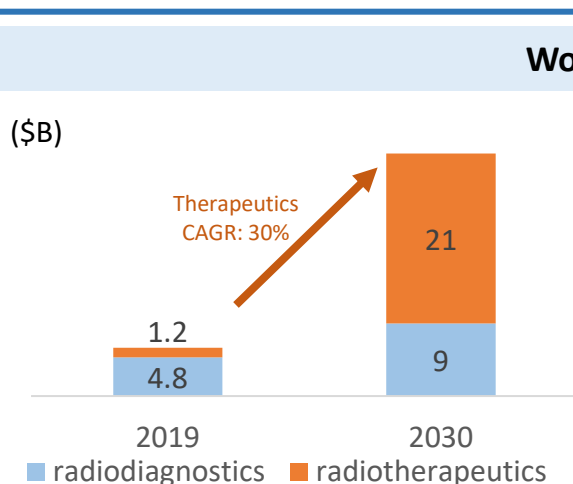
- Phase1a/1b started for CD38-ARM™

4 Global Radiopharmaceutical Market

Experiencing Significant Growth From Targeted Radiotherapeutics/Diagnostics

- **Targeted radiotherapy:** Lutathera and Pluvicto demonstrating high efficacy – driving further investment/products in the space

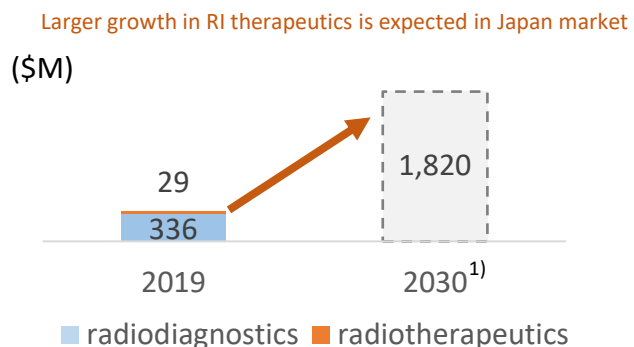
Market Growth



Major Players

Novartis/AAA	Bayer
Lantheus	Curium
ITM	Eli Lilly/Avid
Point Biopharma	RayzeBio

Japan



PDRadiopharma
Nihon Medipysics

Clinical Pipeline and Marketed Radiotherapeutics²⁾

Company	SSTR	PSMA	FAP	HER2	NTSR1	GRPR	CAIX	CD45	B7H3	CD33	CD66	LAT1	FGFR3	GPR	IGFR1	Integrin αvβ3/5	PARP
Novartis																	
Telix Pharmaceuticals																	
3B Pharmaceuticals																	
Point Biopharma																	
Clarity Pharmaceuticals																	
Fusion Pharma																	
Lantheus																	
Actinium Pharmaceuticals																	
ITM																	
Precirix																	
Bayer																	
Full-Life/ Focus X																	
NanoMab																	
RadioMedix																	
Curium																	
RayzeBio																	
Y-mAbs Therapeutics																	
Ariceum Therapeutics																	
Andarix																	
Theragnostics																	

Note: 1) Estimate from the data of JRIA, Exchange rate JPY/USD=140; 2) Partnered programs may be counted twice (e.g., Fusion and 3B, Point and Lantheus).
Source: 1) JRIA, Global information, Analysis of BofA 2) Company websites as of end of January 2023

■ = Marketed ■ = Clinical stage ■ = Preclinical stage

4 PD/PDR Ideally Positioned to be a Major Player

Leveraging PD's Radiotherapeutic Discovery Role With PDR's Unique Japan Market Presence

Key Features of the Radiopharmaceutical Market in Japan

- Only 2 licensed radiopharmaceutical companies in Japan due to highly regulated market
- High barrier to Japan market entry, strict regulations and supply chain requirements to handle radiopharmaceuticals
- Partnering with a local Japanese company is essential for global pharma companies to commercialize their radiopharmaceutical products in Japan



- Already playing a leading global role in the discovery and development of target radiotherapies (peptide-RI conjugates) through partnerships with Novartis, RayzeBio and Bayer
- Growing pre-clinical pipeline of peptide-RI conjugates
- Strong global reputation and connections with big pharma and the other major radiopharmaceutical players



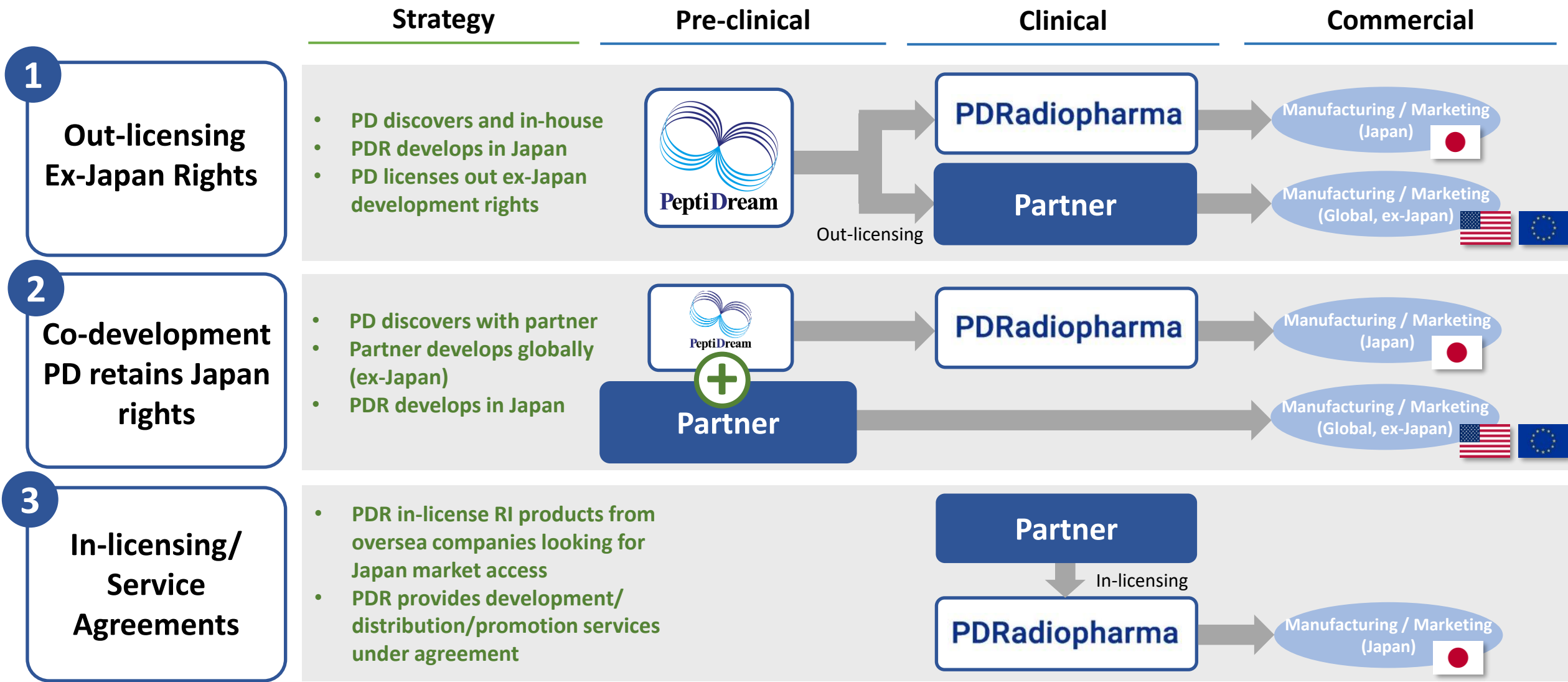
PDRadiopharma

- Founded in 1968: experts with deep experience in radiopharmaceuticals
- Long relationships with regulators, KOLs, radiologists/hospitals
- Vertically integrated infrastructure with R&D, manufacturing and commercialization capabilities in Japan
- 8 therapeutic and 24 diagnostic products on the market
- Network of global radioisotope suppliers and vendors

Combining with PDRadiopharma enables PeptiDream to both accelerate and maximize the value of the peptide-RI products it is discovering and developing

PD/PDR Radiopharmaceutical Product Offerings

3 Strategies to Grow PD/PDR Product Portfolio and Revenue

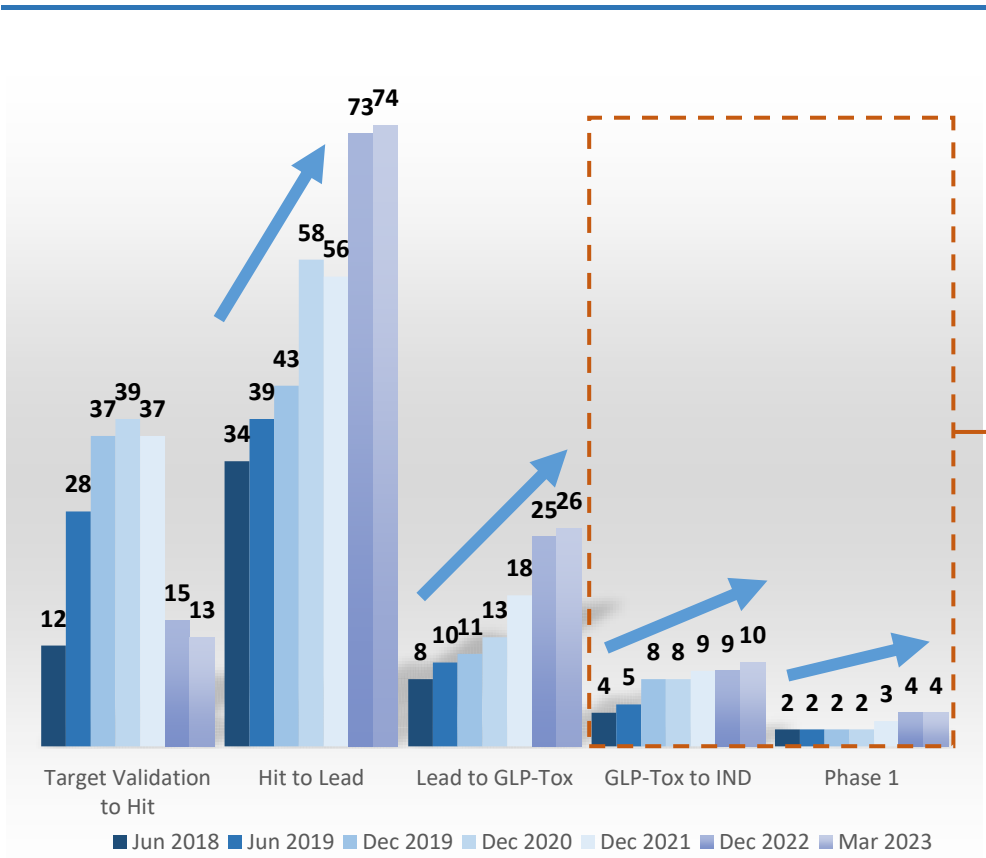


PeptiDream Pipeline Snapshot

Consistent Year-Over-Year Advancement of Programs Through Preclinical Into Clinical Development



Number of programs per stage


































Recent Highlights:

	PD-L1 inhibitor	Oncology	<ul style="list-style-type: none">Partnered with BMSInitiated Phase 1 in April 2022Blockbuster potential
Biohaven	CD38-ARM™	Multiple myeloma	<ul style="list-style-type: none">Partnered with BiohavenReceived FDA orphan drug designation in 2020Initiated Phase 1a/1b in October 2021
	AZP-3813	Acromegaly, Others	<ul style="list-style-type: none">Licensed to AmolytAddresses inefficiencies in current treatments (currently a \$6B market)Slated to enter Phase 1 in 2023
	RI-PDC	Oncology	<ul style="list-style-type: none">Partnered with RayzeBioNominated the first development candidate arising from the strategic partnershipNominated the second development candidate against Glypican-3Conjugation of radioisotopes and novel peptide binders discovered using PDPS

Note: Numbers do not include programs at PDRadiopharma.

Clinical/Late-Research Stage Pipeline of PeptiDream

Program	Indication	Partner	Preclinical	Clinical			Status
				Ph1	Ph2	Ph3	
PD-L1 Therapeutic Peptide 	Oncology	 Bristol Myers Squibb™					Phase 1 started April 2022 (ISRCTN17572332)
PD-L1 BMS-986229 RI-PDC (PET diagnostic) 	Oncology	 Bristol Myers Squibb™					Phase 1 started Nov 2019 (NCT04161781)
CD38 BHV-1100 + NK Cells Therapeutic MPC 	Multiple Myeloma	Biohaven					Phase 1a/1b started Oct 2021 (NCT04634435)
S2-protein PA-001 Therapeutic Peptide 	COVID-19	PeptiAID					Clinical research completed (jRCTs031210601); Planning next development steps
GhR AZP-3813 Therapeutic Peptide 	Acromegaly/NET	AMOLYT PHARMA					Currently in IND enabling studies / Entering clinic in 2023
Glypican-3 RI-PDC 	Liver cancer	RayzeBio					Selected clinical development candidate (Mar. 2023)/ GLP-Tox to IND stage
Myostatin Therapeutic Peptide 	DMD/ Muscle Disorders	In-house (Kawasaki Med. School)					Selecting clinical development candidate / Considering partnering options
Undisclosed RI-PDC 	Oncology	RayzeBio					Selected clinical development candidate (Dec. 2022)/ GLP-Tox to IND stage
Undisclosed RI-PDC 	Oncology	 NOVARTIS					Lead to GLP-Tox stage
TfR Oligo-PDC 	Neuromuscular Disorders						Lead to GLP-Tox stage
c-Kit Therapeutic Small Molecule 	Allergic Condition	 MODULUS					Partnering discussions
c-Met Therapeutic Peptide 	Undisclosed	Genentech <small>A Member of the Roche Group</small>					Lead to GLP-Tox stage
HA-protein PD-001 Therapeutic Peptide 	Influenza	In-house					Considering partnering options in light of changing global market environment

PDRadiopharma Product Portfolio

8 Therapeutic and 24 Diagnostic Products on the Market

- Promote use and indication expansion of existing approved products

	Product/Program Target	Radio-isotope	Indication	Partner	Preclinical	Clinical			Marketed
						Ph1	Ph2	Ph3	
Tx	Sodium Iodide Capsule	¹³¹ I	Hyperthyroidism/Primary and Metastatic Thyroid Cancer	In-house					
Tx	Raiatt MIBG	¹³¹ I	MIBG avid Pheochromocytoma/ Paraganglioma	In-house					
Tx	Zevalin® CD20	⁹⁰ Y	Low-grade non-Hodgkin's B-cell Lymphoma/Mantle Cell Lymphoma	Mundipharma					
Dx	OctreoScan® SSTR	¹¹¹ In	Somatostatin Receptor Scintigraphy	Curium					
Dx	Techne® MDP	^{99m} Tc	Bone Scintigraphy	In-house					
Dx	Neurolite®	^{99m} Tc	Cerebral Blood Flow	Lantheus Medical Imaging					
Dx	Cardiolite®	^{99m} Tc	Heart Disease/ Hyperparathyroidism	Lantheus Medical Imaging					
Dx	MyoMIBG®	¹²³ I	Heart Disease/ Pheochromocytoma/ Neuroblastoma	In-house					
Dx	Tl201	²⁰¹ Tl	Heart Disease	In-house					
Dx	Ultra-Techne Kow®	^{99m} Tc	Brain Diseases/Thyroid Disease/Salivary Gland Disease	In-house					
Dx	Amyvid® β-Amyloid	¹⁸ F	Visualization of amyloid beta plaques for patients with suspected AD dementia	Eli Lilly/ Avid Radiopharmaceuticals					
Dx	FDG	¹⁸ F	Malignant Tumor/ Heart Disease/ Intractable Partial Epilepsy/ Large-vessel Vasculitis	In-house					

Note: Tx: Therapeutics, Dx: Diagnostics; FDG = Fluorodeoxyglucose; As of end of Nov 2022.

Clinical Pipeline of PDRadiopharma

New Co-Development Deal With Eli Lilly for Tauvid® Signed in 2022

- 4 clinical-stage programs currently in development
- Planning to further expand PDRadiopharma's pipeline and product portfolio in the future
 - In-license assets already approved or in late-stage development overseas / service agreements to develop/commercialize in Japan
 - Develop PeptiDream's in-house and partnered development programs in Japan

	Program/ Target	Radioisotope	Indication	Clinical			Marketed	Notes
				Ph1	Ph2	Ph3		
Dx	Tauvid® Tau	¹⁸ F	Alzheimer's disease	Co-development with Eli Lilly in Japan				Approved by US FDA in 2020
				US (Eli Lilly)				
Dx	F-1311 PSMA	^{99m} Tc	Prostate cancer	Japan (PDR)				In-licensed from Lantheus Medical Imaging
				US (Lantheus)				
Thx	FF-10158 Integrin αvβ3/5	⁶⁸ Ga/ ¹⁷⁷ Lu	Malignant glioma and others	US/ EU (NVS)				Out-licensed ex-Japan rights to Novartis PDR retains Japan rights
Thx	PPMX-T002 Cadherin3	-	Advanced and recurrent solid tumors	Japan (PPMX)				Co-owned with Perseus Proteomics (PPMX)
				US (PPMX)				PPMX leading out-licensing activities

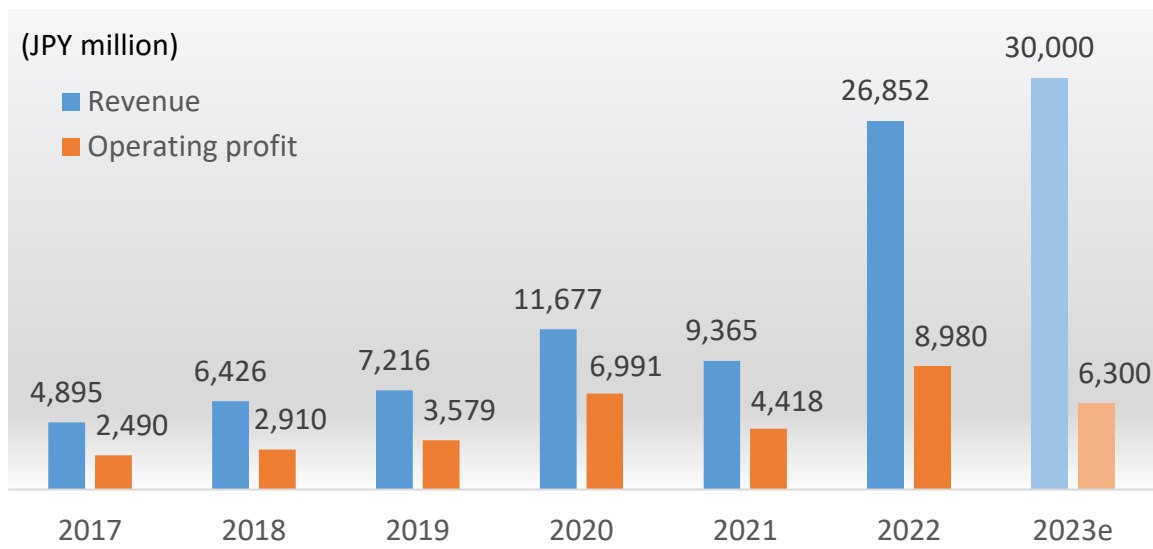
PeptiDream Financial Performances and Near-term Catalysts



Year-Over-Year Revenue and Profit Growth

Financial performance

- Consistent revenue and profit growth
- Reinvesting profits to further grow the business and pipeline
- Acquisition of PDRadiopharma adds cash flow/revenue
- Goal of JPY100B in revenue by 2030



Market Capitalization ¹⁾ (As of May 31, 2023)	JPY 279.6 B
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Future catalysts

- **Progress of On-going Clinical Programs**
 - Next-Generation PD-L1 Inhibitor: Ph1 results/entry into Ph2
 - CD38-ARM: Ph1a/1b clinical results
 - PA-001: Development progress/out-licensing
- **Initiation of New Clinical Programs**
 - AZP-3813: Entry into Ph1 in 1H 2023
 - Myostatin Inhibitor: Selection of development candidate/considering out-licensing/development options
 - RI-PDC Program (RayzeBio): Advancing 1st/ 2nd development candidate
 - RI-PDC Program (Novartis, in-house): Selection of development candidate
 - Oligo-PDC Program : Selection of development candidate
- **New Deals for Research Collaboration/ PDPS Licensing**
 - Expansion of PDC programs / PDPS Licensing
 - MPC programs – asset creation/potential deals
- **Others**
 - Partnering for KIT selective inhibitor

Note: From FY2019, fiscal year end changed from changed from June 30 to December 31. The financial performance between 2019/7 and 2019/12 (6 months) are excluded from this figure.
1) Yahoo! Finance.

References

Leadership Team at PeptiDream



Representative Director, President, CEO

Patrick C. Reid, Ph.D.

- Co-founder of PeptiDream, after working as Associate Professor at University of Tokyo
- CSO, Head of R&D until 2017
- CEO at PeptiDream 2017 to current
- Ph.D. in Biochemistry from Dartmouth Medical School



Chief Medical Officer

Masato Murakami, M.D., Ph.D., MBA

- Joined PeptiDream in Jan 2022, previously Vice President of the Global Precision Medicine Department at Daiichi-Sankyo
- M.D. from Tokai University School of Medicine (trained pathologist)
- Ph.D. in Medicine from University of Tokyo



Director, COO

Keiichi Masuya, Ph.D.

- Joined PeptiDream in Jul 2014, previously Head of PPI Drug Discovery at Novartis International AG
- Director of PDRadiopharma, Director at PeptiGrowth, Representative Director and President at PeptiAID
- Ph.D. in Chemistry from Tokyo Institute of Technology



Head of Business Development

Yen Ting Chen, Ph.D.

- Joined PeptiDream in May 2022, previously Vice President at Locust Walk Japan
- Ph.D. in Chemistry from Brown University



Director, CFO

Kiyofumi Kaneshiro, Ph.D.

- Joined PeptiDream in Jan 2018, previously Partner and Managing Director at the Boston Consulting Group
- Director of PDRadiopharma, Director at PeptiAID
- Ph.D. in Oncology from University of Tokyo



Head of IR & Public Affairs

Yuko Okimoto, Ph.D.

- Joined PeptiDream in May 2020, previously Director at Global Investment Banking Division of Mizuho Securities
- Ph.D. in Chemistry from University of Tokyo



**Independent External Director
(Auditing Committee Member)**

Michio Sasaoka, Ph.D.

- Joined PeptiDream in May 2012, after working at Massachusetts Institute of Technology as Postdoctoral Research Associate, Otsuka Chemical Co., Ltd. as Director of Explorative Laboratory
- Currently Independent Outside Director (Auditing Committee Member) at PeptiDream



**Independent External Director
(Auditing Committee Member)**

Junko Utsunomiya (Attorney)

- Joined PeptiDream in Mar 2021, after working at Nagashima Ohno & Tsunematsu, Utsunomiya Shimizu & Haruki Management Legal Office as a founding partner
- Currently Independent Outside Director (Auditing Committee Member) at PeptiDream



**Independent External Director
(Auditing Committee Member)**

Toshio Nagae

- Joined PeptiDream in Sep 2015, after working at Shionogi & Co., Ltd., Sanofi K.K. as Executive Officer of Aventis Pharma, York Pharma K.K as President and Representative Director
- Currently Independent Outside Director (Auditing Committee Member) at PeptiDream



**Independent External Director
(Auditing Committee Member)**

Yukinori Hanafusa (Certified Public Accountant)

- Joined PeptiDream in Mar 2016, after working at Aoyama Audit Corporation, Accounting Works Co., Ltd. as Founding Representative Director, ARCLAND SERVICE HOLDINGS CO., LTD as Director
- Currently Independent Outside Director (Auditing Committee Member) at PeptiDream

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These factors include, but are not limited to: (1) risks of delays, interruptions or failures associated with drug discovery and development; (2) risks of unexpected program disruptions or terminations due to changes in client policies; (3) risks associated with manufacturing products and the procurement of raw materials; (4) the impact of reduced competitiveness due to the competitors and competing technologies; (5) declining product sales capabilities; (6) adverse rulings in infringements or significant litigation against our Group's intellectual property rights; (7) adverse changes in economic conditions and related laws and regulations; and (8) fluctuations in interest rates and currency exchange rates.

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