NON – CONFIDENTIAL

Sosei Heptares R&D Day

October 2022 | Sosei Group Corporation (TSE:4565)

Disclaimer

The material that follows is a presentation of general background information about Sosei Group Corporation and its subsidiaries (collectively, the “Company”) as of the date of this presentation. This material has been prepared solely for informational purposes and is not to be construed as a solicitation or an offer to buy or sell any securities and should not be treated as giving investment advice to recipients. It is not targeted to the specific investment objectives, financial situation or particular needs of any recipient. It is not intended to provide the basis for any third party evaluation of any securities or any offering of them and should not be considered as a recommendation that any recipient should subscribe for or purchase any securities.

The information contained herein is in summary form and does not purport to be complete. Certain information has been obtained from public sources. No representation or warranty, either express or implied, by the Company is made as to the accuracy, fairness, or completeness of the information presented herein and no reliance should be placed on the accuracy, fairness, or completeness of such information. The Company takes no responsibility or liability to update the contents of this presentation in the light of new information and/or future events. In addition, the Company may alter, modify or otherwise change in any manner the contents of this presentation, in its own discretion without the obligation to notify any person of such revision or changes.

This presentation contains “forward-looking statements,” as that term is defined in Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended. The words “believe”, “expect”, “anticipate”, “intend”, “plan”, “seeks”, “estimates”, “will” and “may” and similar expressions identify forward looking statements. All statements other than statements of historical facts included in this presentation, including, without limitation, those regarding our financial position, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to our products), are forward looking statements. Such forward looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward looking statements. Such forward looking statements are based on numerous assumptions regarding our present and future business strategies and the environment in which we will operate in the future. The important factors that could cause our actual results, performance or achievements to differ materially from those in the forward looking statements include, among others, risks associated with product discovery and development, uncertainties related to the outcome of clinical trials, slower than expected rates of patient recruitment, unforeseen safety issues resulting from the administration of our products in patients, uncertainties related to product manufacturing, the lack of market acceptance of our products, our inability to manage growth, the competitive environment in relation to our business area and markets, our inability to attract and retain suitably qualified personnel, the unenforceability or lack of protection of our patents and proprietary rights, our relationships with affiliated entities, changes and developments in technology which may render our products obsolete, and other factors. These factors include, without limitation, those discussed in our public reports filed with the Tokyo Stock Exchange and the Financial Services Agency of Japan. Although the Company believes that the expectations and assumptions reflected in the forward-looking statements are reasonably based on information currently available to the Company's management, certain forward looking statements are based upon assumptions of future events which may not prove to be accurate. The forward looking statements in this document speak only as at the date of this presentation and the company does not assume any obligations to update or revise any of these forward statements, even if new information becomes available in the future.

This presentation does not constitute an offer, or invitation, or solicitation of an offer, to subscribe for or purchase any securities. Neither this presentation nor anything contained herein shall form the basis of any contract or commitment whatsoever. Recipients of this presentation are not to construe the contents of this summary as legal, tax or investment advice and recipients should consult their own advisors in this regard.

This presentation and its contents are proprietary confidential information and may not be reproduced, published or otherwise disseminated in whole or in part without the Company’s prior written consent. These materials are not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

This presentation contains non-GAAP financial measures. The non-GAAP financial measures contained in this presentation are not measures of financial performance calculated in accordance with IFRS and should not be considered as replacements or alternatives profit, or operating profit, as an indicator of operating performance or as replacements or alternatives to cash flow provided by operating activities or as a measure of liquidity (in each case, as determined in accordance with IFRS). Non-GAAP financial measures should be viewed in addition to, and not as a substitute for, analysis of the Company's results reported in accordance with IFRS.

References to "FY" in this presentation for periods prior to 1 January 2018 are to the 12-month periods commencing in each case on April 1 of the year indicated and ending on March 31 of the following year, and the 9 month period from April 1 2017 to December 31 2017. From January 1 2018 the Company changed its fiscal year to the 12-month period commencing in each case on January 1. References to "FY" in this presentation should be construed accordingly.

Agenda

Thursday 22 October 2022 15:30 to 17:30

1. Business Overview and Update

   Chris Cargill, CEO

2. Key Partnered Programs and Platform Technologies

   Dr. Matt Barnes, President of Heptares and Head of UK R&D

3. Priority Wholly-owned Programs

   Dr. Rie Suzuki, Senior Director, Translational Biology

4. Q&A

1

Business Overview and Update

Chris Cargill, CEO

The vision for Sosei Group

LONG-TERM FOCUS

JAPANESE QUALITY

Science-led development and engagement, delivering innovative medicines to patients

WORLD-LEADING SCIENCE

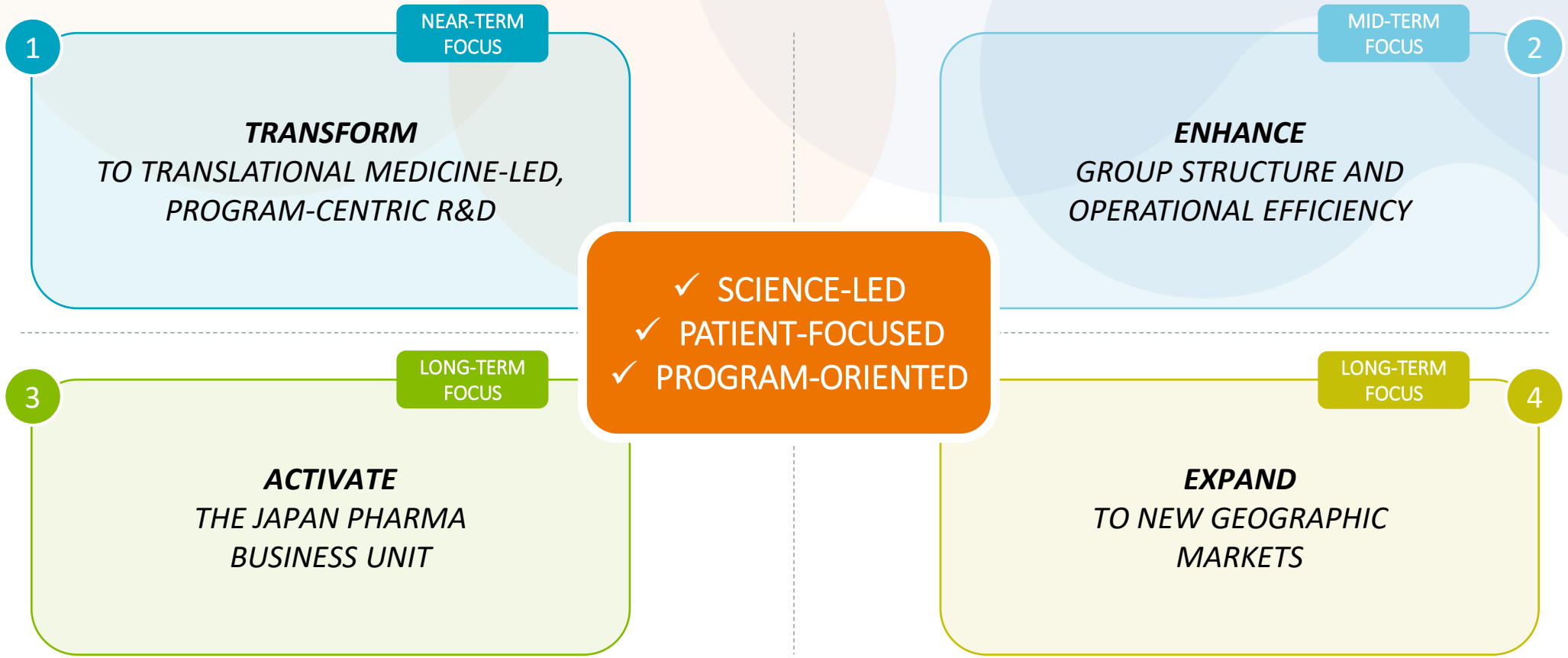
LIFE-CHANGING MEDICINES

NEAR-MID TERM FOCUS

WESTERN INNOVATION

World-class scientific platform, discovering life-changing medicines

Clear and transparent objectives to drive the business forward



World-leading science. Life-changing medicines.

1 What do we mean by **transforming** to **TM-led R&D**?

NEAR-TERM FOCUS

Choosing
the right target

- Will modulating the target affect disease?
- Can a good modulator of the target be found?

The **Right Target**

Discovering
a therapeutic agent

- Identifying a modulator with the appropriate profile
- Differentiating from competitors (if any)

The **Right Asset**

Conducting
the right patient studies

- Demonstrating the value of the agent in treating disease
- Utilizing biomarkers to support patient stratification

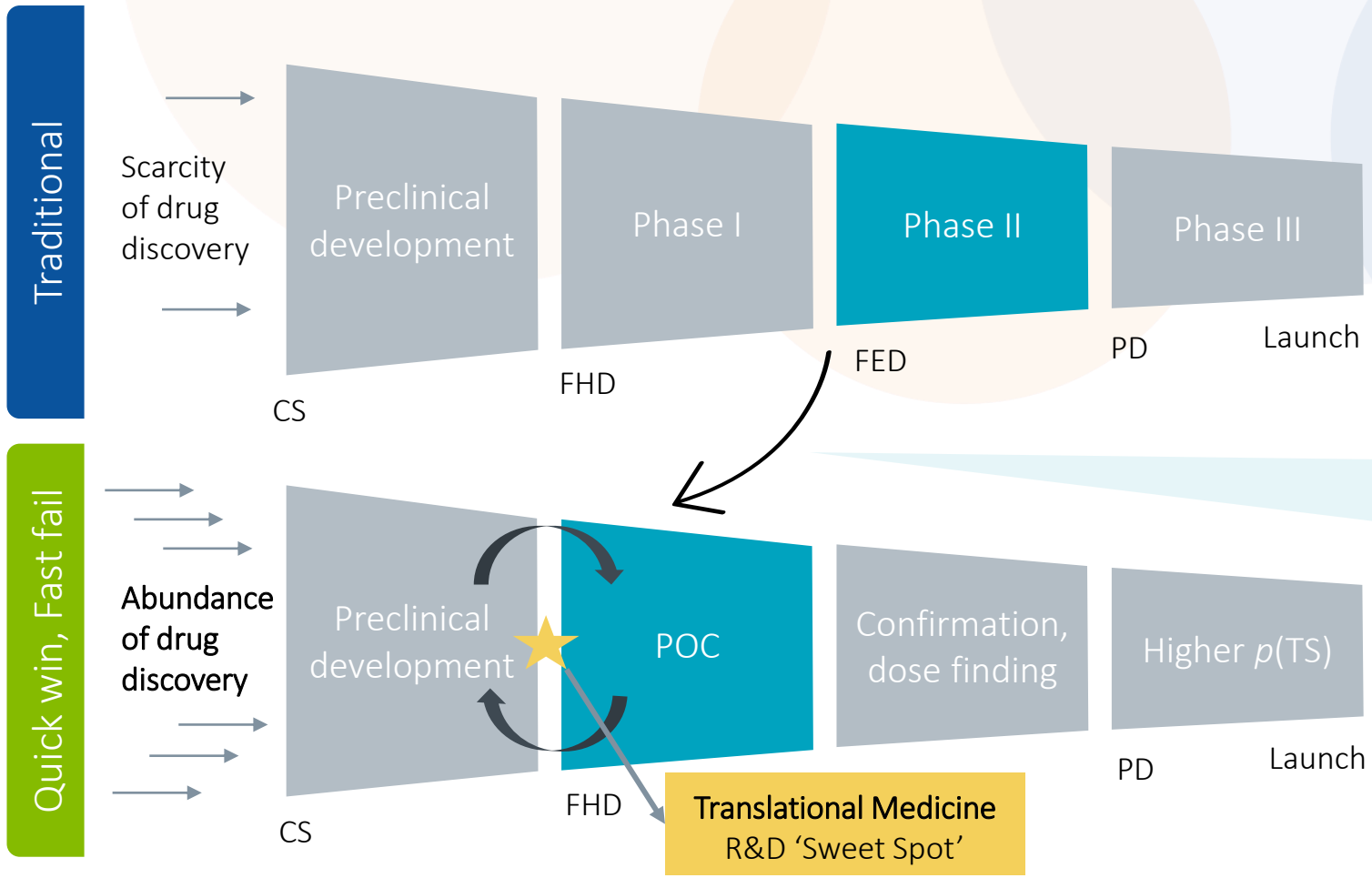
The **Right Therapeutic Hypothesis**

Driven by programs, and requiring close interaction of internal and external subject matter experts

sosei HEPTARES

1 Transforming to TM-led R&D to enhance value and success

NEAR-TERM FOCUS



- Traditional approach (10+ years)
- Increasingly unproductive
- Capital intensive, billions of $ wasted
- Focus on "keeping the program alive"
- Low probability of success

- **Increase critical information earlier**
- **Shift program attrition to earlier, cheaper phase**
- **Faster attrition drives reinvestment in R&D 'sweet spot' for new programs**

- Venture Capital approach
- Highly productive, "quick-win/fast-fail"
- Optimized use of capital
- Focus on "testing the hypothesis"
- Higher probability of technical success

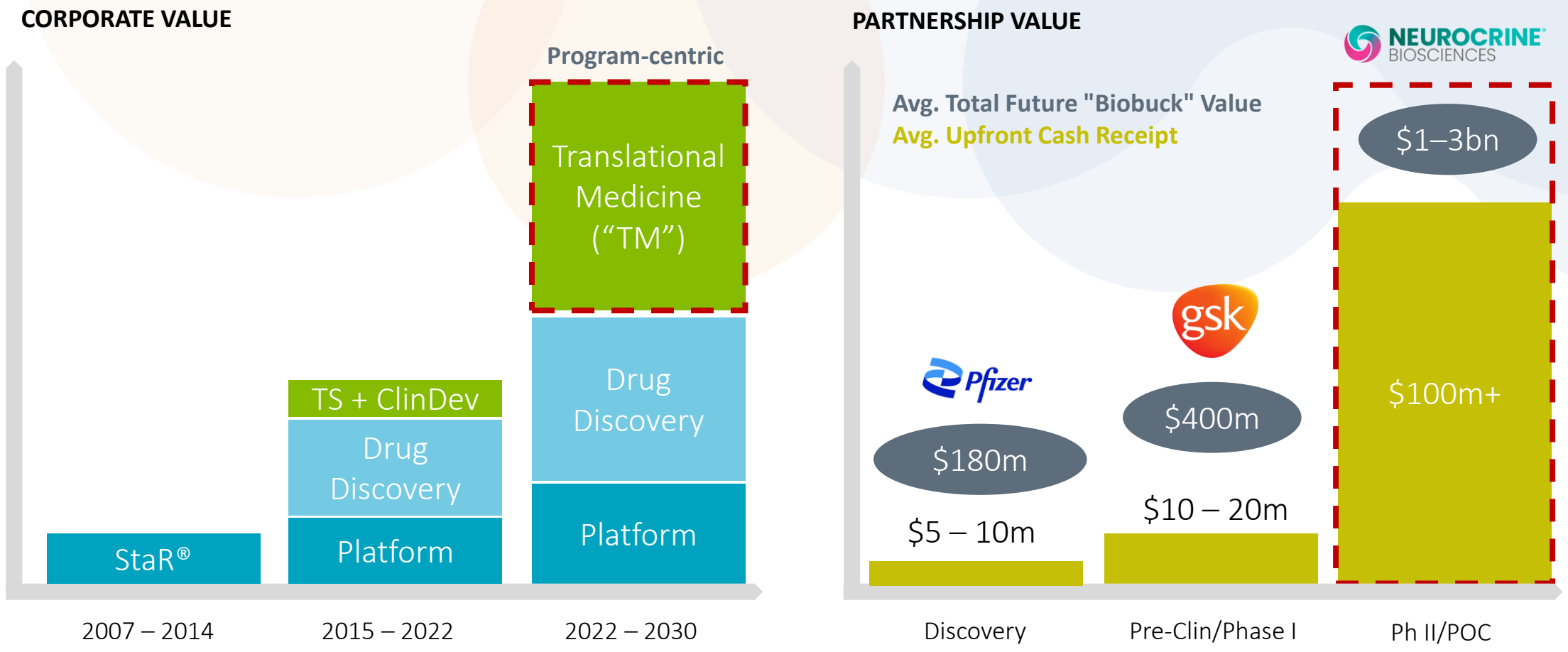
Quick-win/fast-fail approach may enhance value by improving the probability of technical success

Source: Adapted from Owens et al. (2015), Nature Reviews Drug Discovery

sosei HEPTARES

1 Transforming to TM-led R&D to transact at higher values

NEAR-TERM FOCUS



Building our Translational Medicine capability to support the next 10 years of growth

Source: Management figures

sosei HEPTARES

1 **Transforming** to **program-centric R&D** to drive productivity

NEAR-TERM FOCUS

PROGRAM CENTRIC

Empowered leaders and team structures with aligned incentives

Programs accountable for R&D budget, risk management & project plans

Functions exist to support programs

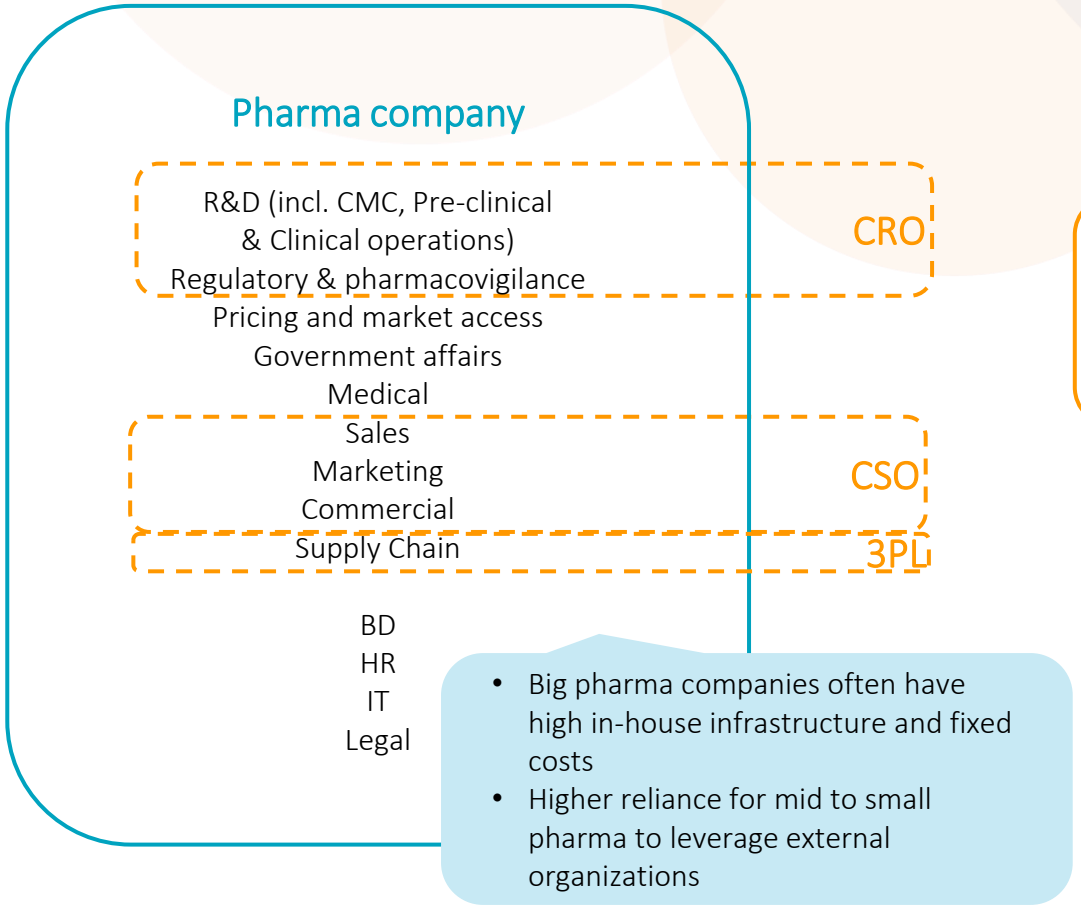
Traditional functional reporting lines structures kill productivity. Program-centricity drives productivity

2

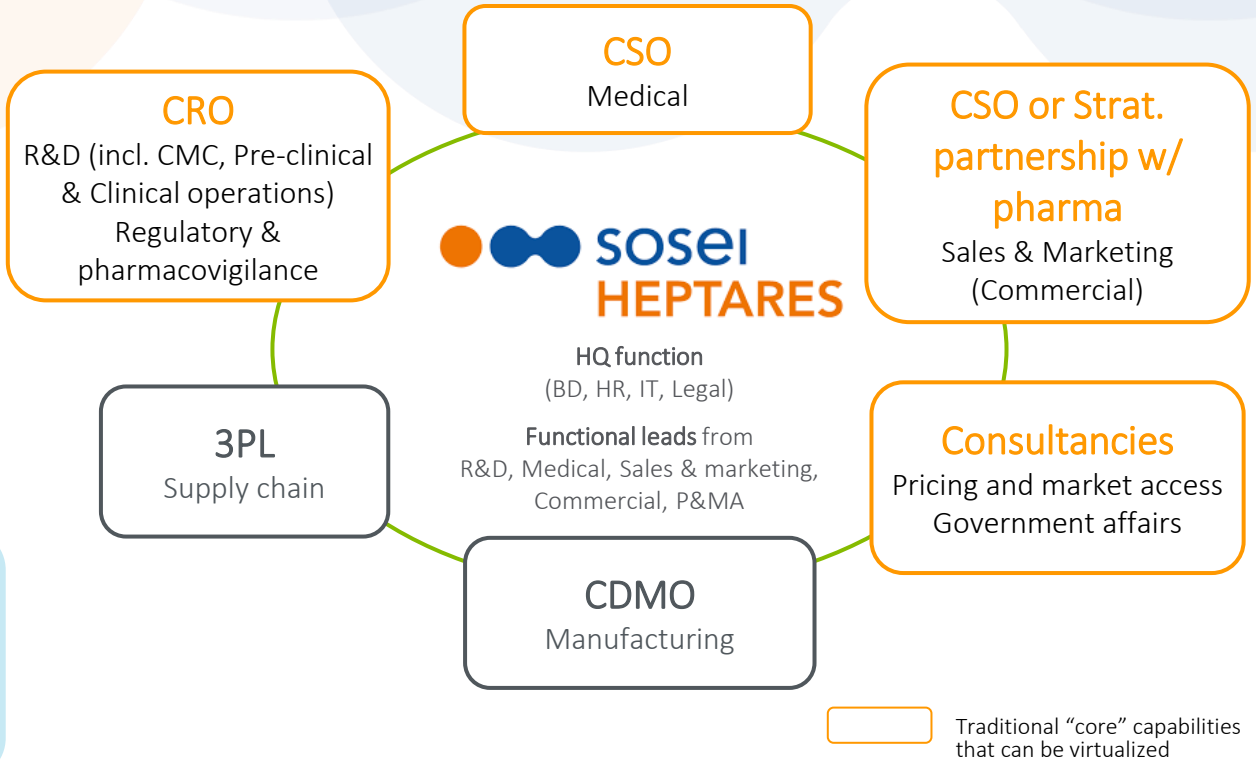
Enhance the group structure and operational efficiency more rapidly by building a disruptive virtual infrastructure

MID-TERM FOCUS

Traditional pharma model



Disruptive, "virtual infrastructure" pharm model (illustrative)



Source: Management

sosei HEPTARES

2

Collaboration with Weatherden is **enhancing** efficiency by enabling us to flexibly access scientific and strategic services

MID-TERM FOCUS

Weatherden Science & Strategy Services

Focused on translation into patients

Scientific strategy

- Indication selection
- Asset positioning
- Competitive landscape

Clinical development

- Trial design
- Patient Stratification
- Early Efficacy signals

Regulatory expertise

- Regulatory strategy
- Lead/support regulatory meetings (e.g. EMA, MHRA, FDA)
- Orphan Drug Designation
- Paediatric Investigation Plans

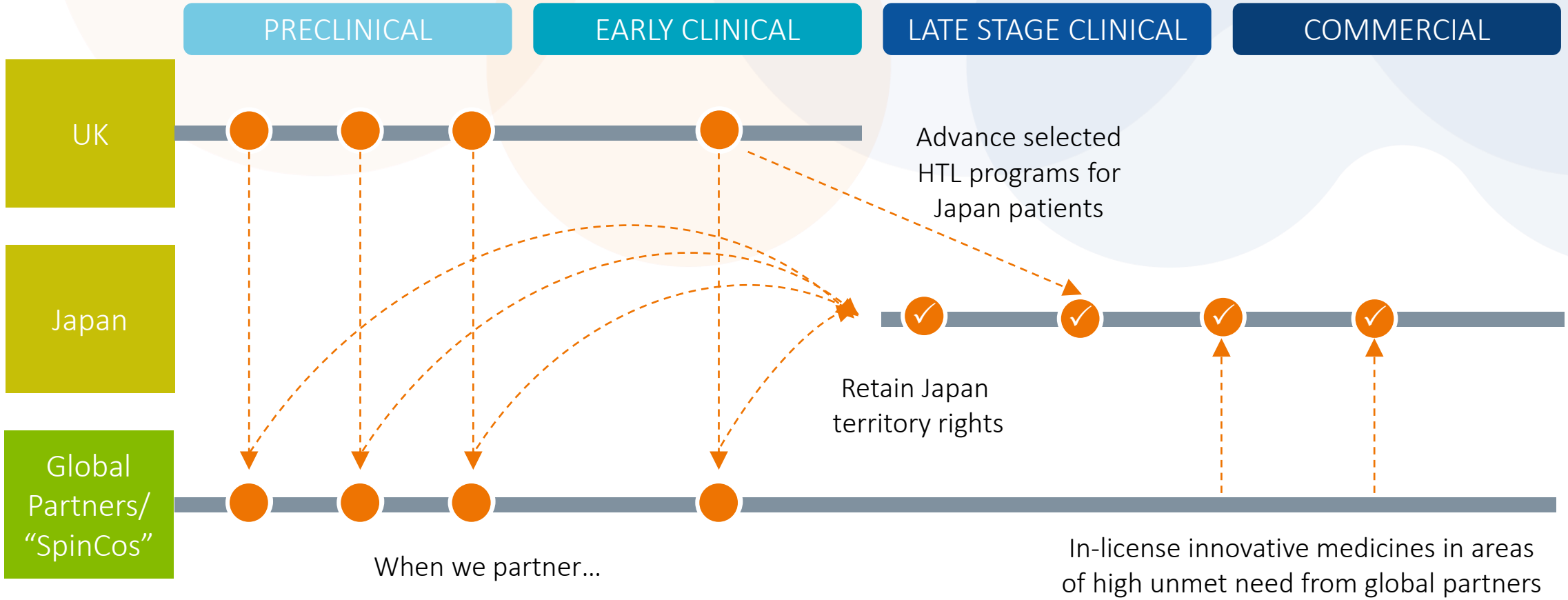
Scientific advisory boards

- World-leading experts
- Key questions
- Clear advice

3

Long-term plan to **activate** a late-stage pipeline that will benefit Japanese patients living with unmet need

LONG-TERM FOCUS



We are a Japanese company with a priority to deliver innovative medicines to patients in Japan and globally

Source: Sosei management

3

Several key factors support our long-term plan to **activate** a disruptive pharma business in Japan

LONG-TERM FOCUS

1. Second largest pharma market globally (ex-China) and expected to remain large
2. Large, ageing population driving sustained demand and ability-to-pay
3. Universal health care system sets a certain level of prices
4. Stable and pro-innovation market driven by innovative specialty drugs
5. Weak incumbents creating opportunities for insurgents
6. Attractive market for disruptors validating existence of opportunities

There is room in Japan to be a disruptive player:

1. Focusing on underserved, specialty TAs/DAs
2. Adopting a lean, rational development and commercial model
3. Building a core in Japan that maximizes value from across the broader APAC region

Source: L.E.K. analysis

sosei HEPTARES

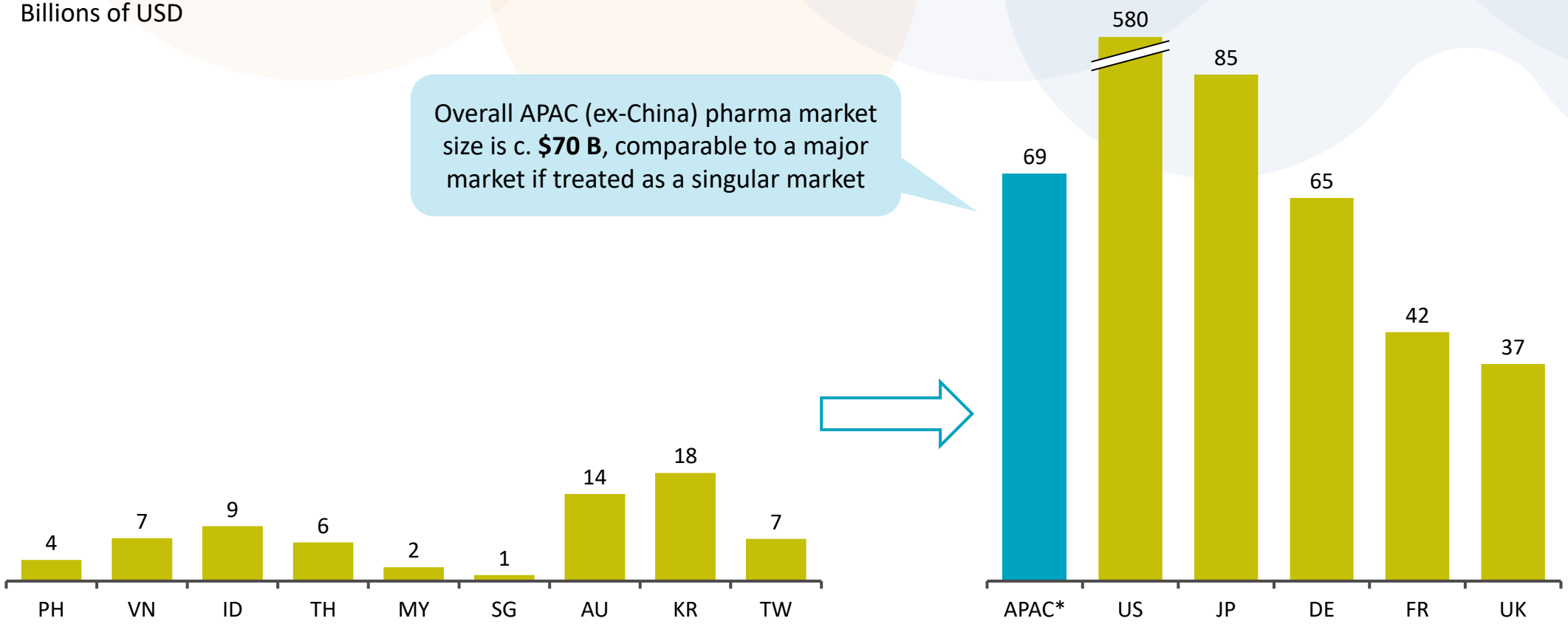
4

Expand to new geographies in APAC which consist of developed and developing markets with a critical mass of patients

LONG-TERM FOCUS

Pharmaceutical market size of APAC and major markets (2021)
Billions of USD

Overall APAC (ex-China) pharma market size is c. **$70 B**, comparable to a major market if treated as a singular market



Note: *China and small APAC markets are not included
Source: BMI; IQVIA; World Bank; Taiwan Ministry of Health and Welfare

sosei HEPTARES

2

Key Partnered Programs and Platform Technologies

Dr. Matt Barnes, President of Heptares and Head of UK R&D

2-1

R&D Key Events Summary

Key event summary - March -> September 2022

March — Sosei Heptares Confirms Senior Leadership Changes to Drive the Company Through the Next Stage of its Evolution

April — Strategic Collaboration with Weatherden announced

May — R&D expansion to the Cori Building

May — Kallyope collaboration announced

June — BD BIO International Conf – San Diego

June — Scientific Advisory Board

July — CRUK EP4 Ant agreement signed

August — *FDA accepted IND for M4 Ag – progressing into Ph2

August — AbbVie multi-target neuroscience collaboration

September — Informa Pharma Intelligence Awards Japan – Transaction of the Year and Executive of the Year

October — Sosei Heptares to host R&D Day

2-2

R&D Operations Update

World leading drug discovery targeting GPCRs

There were lower number of milestone events until end of June, compared with FY21

World leader in GPCR drug discovery and early development

Proprietary GPCR-targeted **StaR® technology** and SBDD platform capabilities

Japan-anchored biotech, with state-of-the-art R&D centre in Cambridge, UK

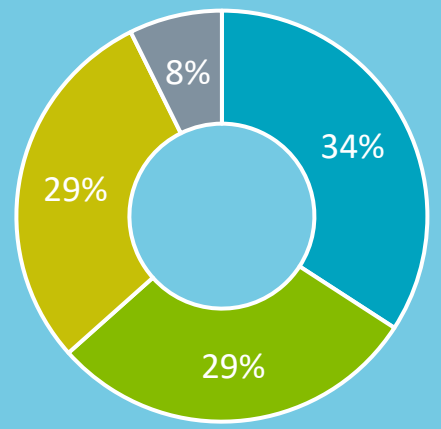
Listed on Tokyo Stock Exchange (4565-JP)

200+	350+	500+	20+	$800M+
EMPLOYEES WORLDWIDE	STRUCTURES SOLVED	GLOBAL PATENTS	WORLD-LEADING PARTNERS	PARTNER REV. RECEIVED TO DATE[1]

EVOLVING WITH A SPECIALIST THERAPEUTIC FOCUS

Advancing a broad and deep pipeline of **over 40** partnered and in-house programs across multiple therapeutic areas:

- Neurology
- Immunology
- Gastroenterology
- Other



[1] Includes upfront and milestone payments, royalties and R&D funding received from active, inactive and completed partnerships from 2005 to 2021.

sosei HEPTARES

Stabilized Receptor (StaR®) platform

We are driving a new era of GPCR Structure-Based Drug Design

- **GPCR drug discovery remains challenging**
  - *Low expression levels* – often with complicated expression and secretion pathways
  - *Difficult purification* – lose structural integrity outside the membrane
  - *Heterogeneity* – inherently flexible; changing conformation depending on the bound ligand

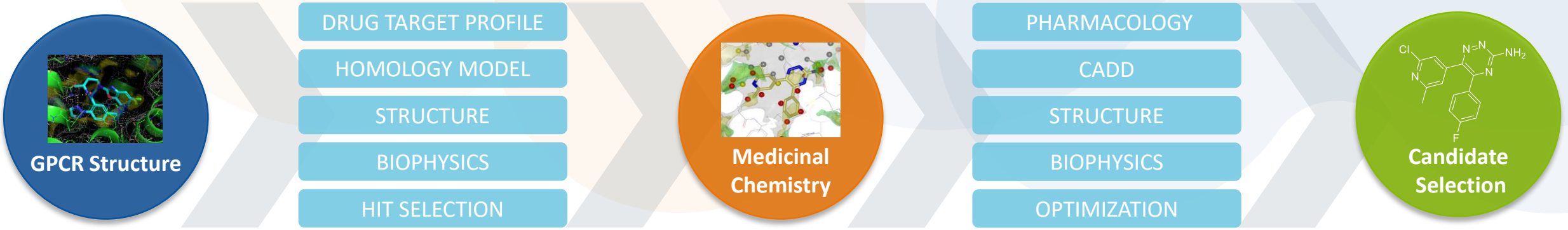
- We introduce point mutations into a GPCR which leads to **increased thermostability**
- The receptor is trapped in a relevant conformation to match the drug product profile
- The **Stabilized Receptor (StaR®)** can be extracted from the membrane and purified with function retained

70+ Stabilized Receptors generated in agonist and/or antagonist conformations

sosei HEPTARES

Structure-Based Drug Design (SBDD) platform

StaR® technology plus SBDD is a powerful tool for GPCR drug discovery



- **GPCR focused SBDD**
  - *Hit Identification* – Virtual Screening, Biochemical and Biophysical assays
  - *Structure Determination* – characterize binding modes
  - *Pharmacology* – understanding mode of action and signalling

- Medicinal Chemistry working closely with Computer Aided Drug Design (CADD)
- Establish detailed Screening Cascade and progression criteria
- Typically 2 year process from starting the target screening to entering Candidate Selection phase

25+ Preclinical Candidates identified for in-house and collaboration pipeline

Translating world-leading science into life-changing therapeutics

Focus areas to build on our global leadership position for the next generation of growth

PLATFORM GROWTH

Build on the strength of our industry leading SBDD platform, drug discovery and early development position

Lead the next wave of growth through expansion beyond GPCRs and adding new technology capabilities

TARGET BIOLOGY

Entrench target biology into all projects for a greater understanding of disease processes

Defining a robust, testable hypothesis linking target, cell, mechanism and site of action to clinical efficacy

TRANSLATIONAL MEDICINE

Fully integrate our preclinical and clinical capabilities to support a translational medicine approach, which is fit for purpose and best practice

PROGRAM CENTRIC

Empowered and aligned team structures with aligned incentives

Projects accountable for R&D budget, Risk Management & Project Plans. Functions exist to support projects.

PATIENT FOCUS

Continually strive to deliver innovative, quality drugs to patients faster

Recognise that partnering some projects can deliver clinical validation earlier

OPERATIONAL EXCELLENCE

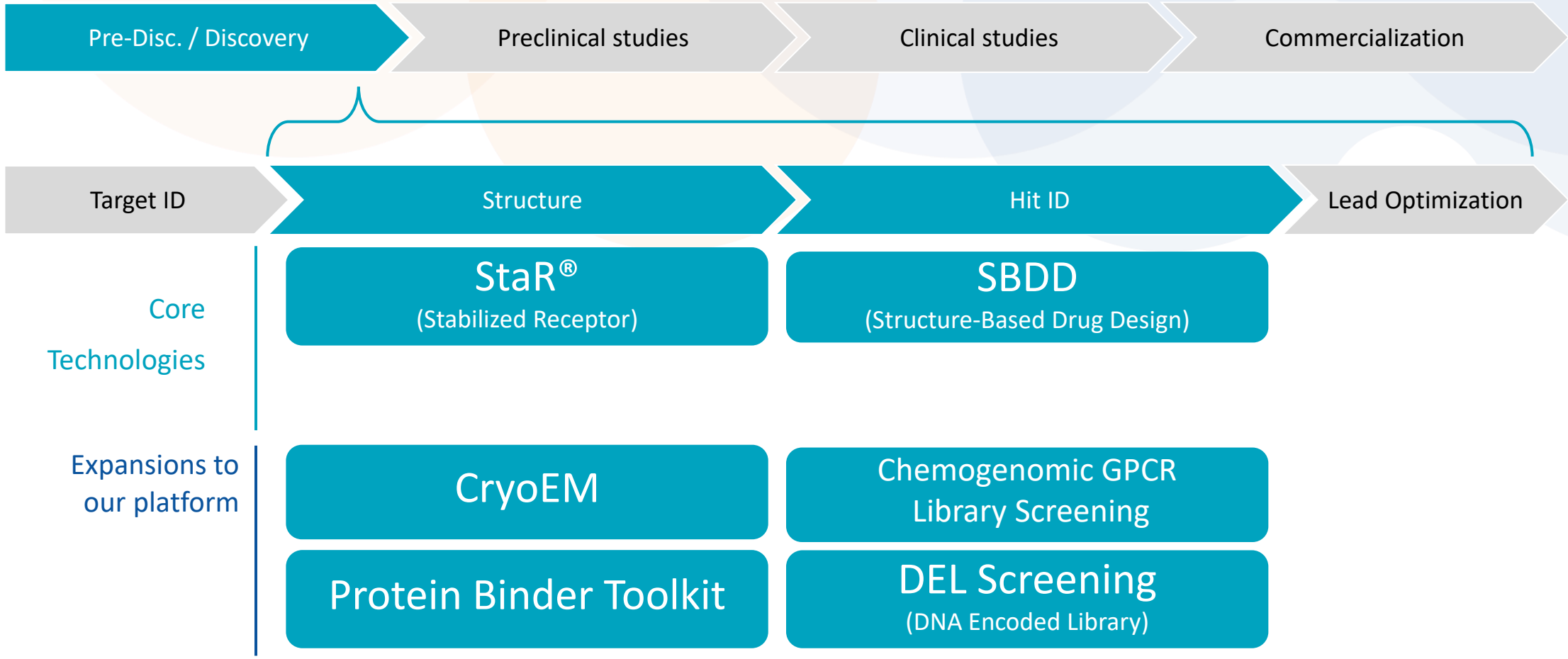
Complement our world leading science with operational best practice

Increase efficiency, Probability of Success (Pos) & Return on Investment (ROI). Employ Project Managers into Enterprise Portfolio Management Office (EPMO). Provide more accurate information to senior management, store data in a format that facilitates external communication faster.

sosei HEPTARES

Strengthening our world leading GPCR platform

Expanding on complementary technologies

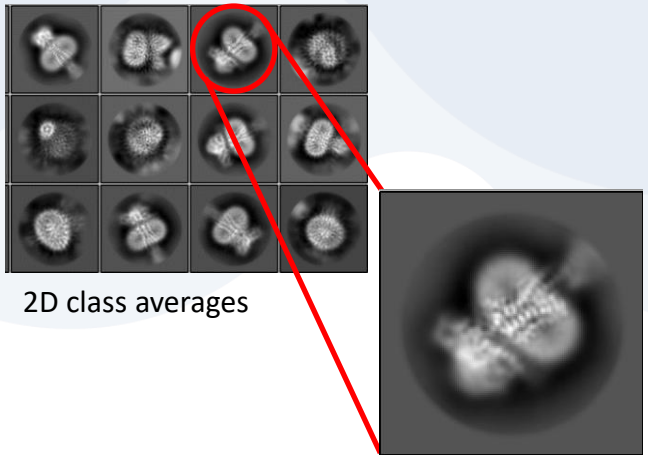


Strengthening our world leading GPCR platform (cont'd)

Combining with our StaR/SBDD, 4 new technologies makes our platform better and faster

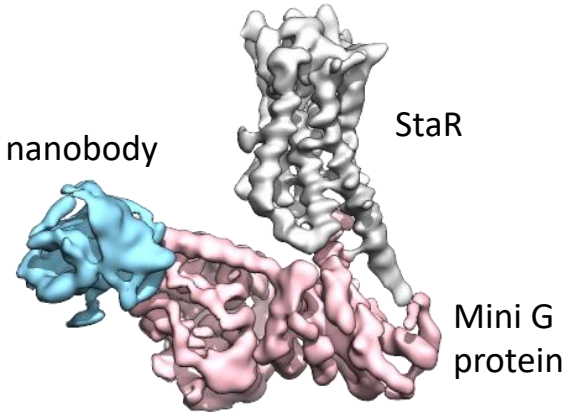
Cryo-EM

- **Early adopters** of Cryo-EM with continued growth (c.f. Richard Henderson - Nobel prize -2017)
- **Routine Cryo-EM structure determination** to support SBDD.
- **45+ structures of 15+ unique GPCRs** determined by Cryo-EM at Sosei Heptares including Family A, Family B and Family F receptors **by both X-ray crystallography and cryo-EM to enable SBDD.**



Protein Binder Toolkit

- **CryoEM structure determination often benefits from the introduction of additional protein domains.**
- These include domains **fused to the StaR** or introduced during expression or purification.
- Clear benefits in structure determination for other **non-GPCR membrane** protein classes.
- Internal Protein Binder platform is included as part of **Cambridge site lab expansion**.



Strengthening our world leading GPCR platform (cont'd)

Combining with our StaR/SBDD, 4 new technologies makes our platform better and faster

DEL Screening (DNA Encoded Library)

- Alternative strategy for **Hit identification** in early drug discovery.
- **15 billion to >1 trillion compound libraries** allowing access to unprecedented levels of diversity.
- StaR proteins can be panned with known tool molecules to identify **new binding sites**
- **10+ StaR proteins** have now been utilized in DEL screens

Chemo-genomic GPCR Library Screening

- Chemogenomic GPCR library screening (WT protein)
- **~50k compound set** based on proprietary GPCR structural chemogenomics & pharmacology knowledge
- Contains GPCR diversified ligand sets covering **390+ GPCR-ligand modality combinations**
- **10+ GPCR** targets screened

sosei HEPTARES

Future innovations

Investing in non-GPCR membrane drug target exploratory research

Sosei Heptares Core Technologies

- StaR®
- SBDD
- CryoEM
- DEL Screening
- Protein Binder Toolkit
- Chemogenomic GPCR Library Screening

Partner Core Technologies

metrion biosciences

Partners with complementary technologies / expertise in non-GPCR membrane target classes

Choosing the right target

- *Ion Channels*
- *Transporters*
- *Integrins*
- *Oral SME alternatives to biologics*

- Technical Feability of non-GPCR membrane target classes
- Choosing Targets with low Biological Risk

World leading SBDD Platform for *Membrane Proteins*

sosei HEPTARES

Translational Medicine & Target Biology

Greater emphasis required on Translational Medicine & Target Biology

Choosing
the right target

- Will modulating the target affect disease?
- Can a good modulator of the target be found?

Discovering
a therapeutic agent

- Identifying a modulator with the appropriate profile
- Differentiating from competitors (if any)

Conducting
the right patient studies

- Demonstrating the value of the agent in treating disease
- Utilizing biomarkers to support patient stratification

→ The Right Target

→ The Right Asset

→ The Right Therapeutic Hypothesis

sosei HEPTARES

Instill a project centric focus throughout the organization

Portfolio Management ensure project strategies are aligned to business deliverables and ROI
Effective, transparent **Governance** enabling timely decision making
Project Leaders accountable for *Asset Generation* and *Therapeutic Hypothesis* aspects of project
Core Team model overseeing project deliverables
Specialist **Project Managers** drive operational best practice
Budgets aligned to projects
Functions exist to serve projects
Empowered and accountable team structures with aligned incentives

sosei HEPTARES

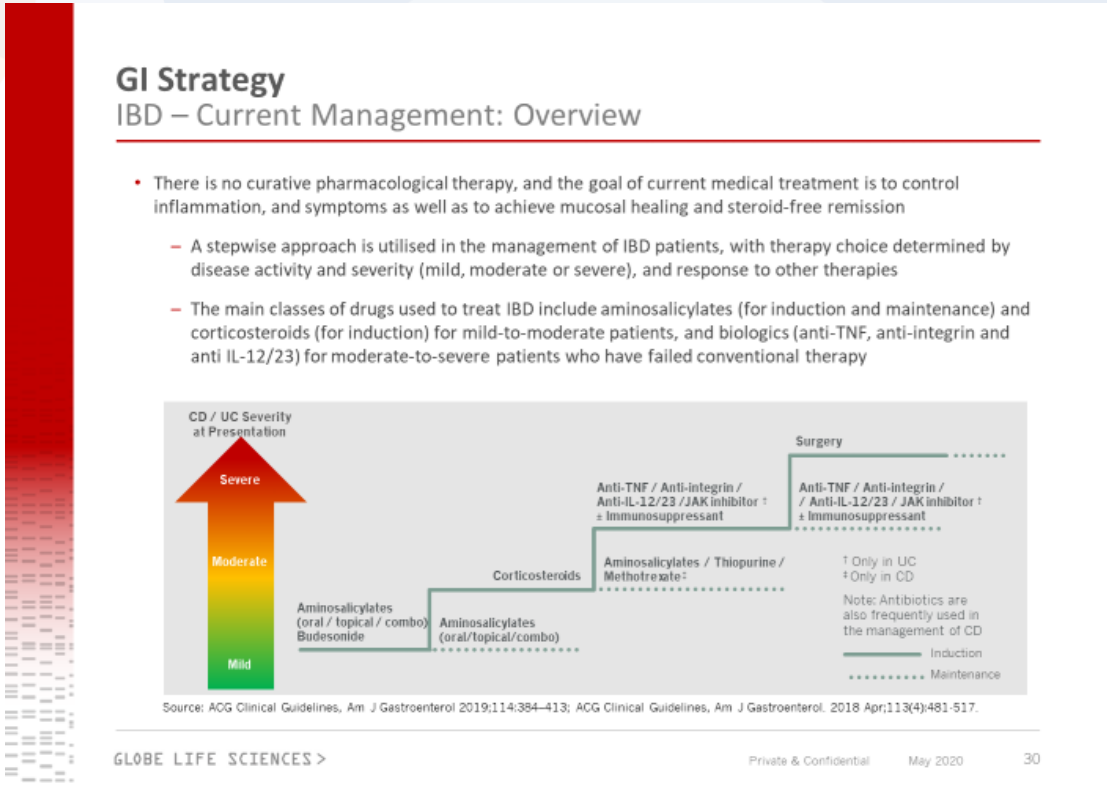
Focus on clear unmet medical need

Target product profiles & treatment algorithms

TARGET PRODUCT PROFILE

Parameter	GPR52 Agonist
Clinical Pharmacology	Orally available CNS penetrant molecule, demonstrated to have efficacy on several models of pre-clinical activity pertinent to CNS dieases including schizophrenia
Indication	Positioning of HTL'149 for schizophrenia to be refined as we move through development – initial focus on: • Treatment of psychotic symptoms in acute psychosis • Adjunctive treatment of schizophrenia symptoms in patients with inadequate response to SoC Additional and/or alternative neuropsychiatric indications also under consideration
Efficacy Endpoints	5-6 point reduction on PANSS scale above placebo response, is appropriate for approvability and in line with previously approved labels
Safety / Tolerability	• Similar to currently approved antipsychotics • No QTc risk
Edge	• No/less weight gain than currently approved antipsychotics; lack of metabolic effects • Lack of movement disorders warnings or neurocognitive dysfunction (e.g sedation) • No dose adjustment with regard to renal or hepatic insufficiency, or in the elderly • No risk of neutropenia, or agranulocytosis DDIs: • (Base case) Similar pattern to Identifiable and Manageable DDIs with respect to CYP3A4 and 2B6 as currently approved antipsychotics. • (Upside) no DDI in the therapeutic dose range.

TREATMENT ALGORITHMS



2-3

R&D Portfolio & Projects

Overview of major pipeline

	Pre-Disc. / Discovery		Preclinical studies	Phase 1	Phase 2	Marketed
Partnered	Multi-target GI and other (Takeda)	Multi-target Multiple (Genentech)	M_1M_4 ag. Neurology (Neurocrine Biosciences)	GLP-1 ag. T2DM/Obesity (Pfizer)	M_4 ag. NBI'568 Schizophrenia (Neurocrine Biosciences)	Ultibro® Breezhaler® COPD (Novartis)
	Multi-target (abbvie) Inflammatory and Neurology	Multi-target Multiple (Pfizer)	M_1 ag. Neurology (Neurocrine Biosciences)	CCR6 ant. IBD (Pfizer)	A2a ant. combo(s)[1] mCRPC (AstraZeneca)	Seebri® Breezhaler® COPD (Novartis)
			GPR35 ag. IBD (gsk)	MC4 ant. Anorexia (Pfizer)		Enerzair® Breezhaler® Asthma (Novartis)
			CGRP ant. Neurology (biohaven pharmaceuticals)			Oravi® Mouth candidiasis (Hisamitsu)
Co-dev / Profit share	Captor Therapeutics® TPD	TWIST BIOSCIENCE Antibody	KALLYOPE Gut-brain axis	PeptiDream PAR2 peptide		
	metrion biosciences Ion channel	Inveni AI AI-driven	verily AI-driven	PHARMENABLE AI-driven		
			CXCR4 mAb (sanofi) Immuno-oncology			
Co-owned companies		OX2 ag. Narcolepsy(Oral) (Centessa / Orexia Therapeutics)	OX2 ag. Narcolepsy(Intranasal) (Centessa / Orexia Therapeutics)	$mGlu_5$ NAM Substance abuse (Tempero Bio)		
In-house / Not yet partnered	*10+ other programs*	SARS-CoV-2 MPro Coronaviruses (Wellcome) PAR2 mAb Atopic Dermatitis	GPR52 ag. Neurology EP4 ag. IBD	H4 ant. Atopic Dermatitis EP4 ant. Immuno-oncology (Cancer Research UK)		

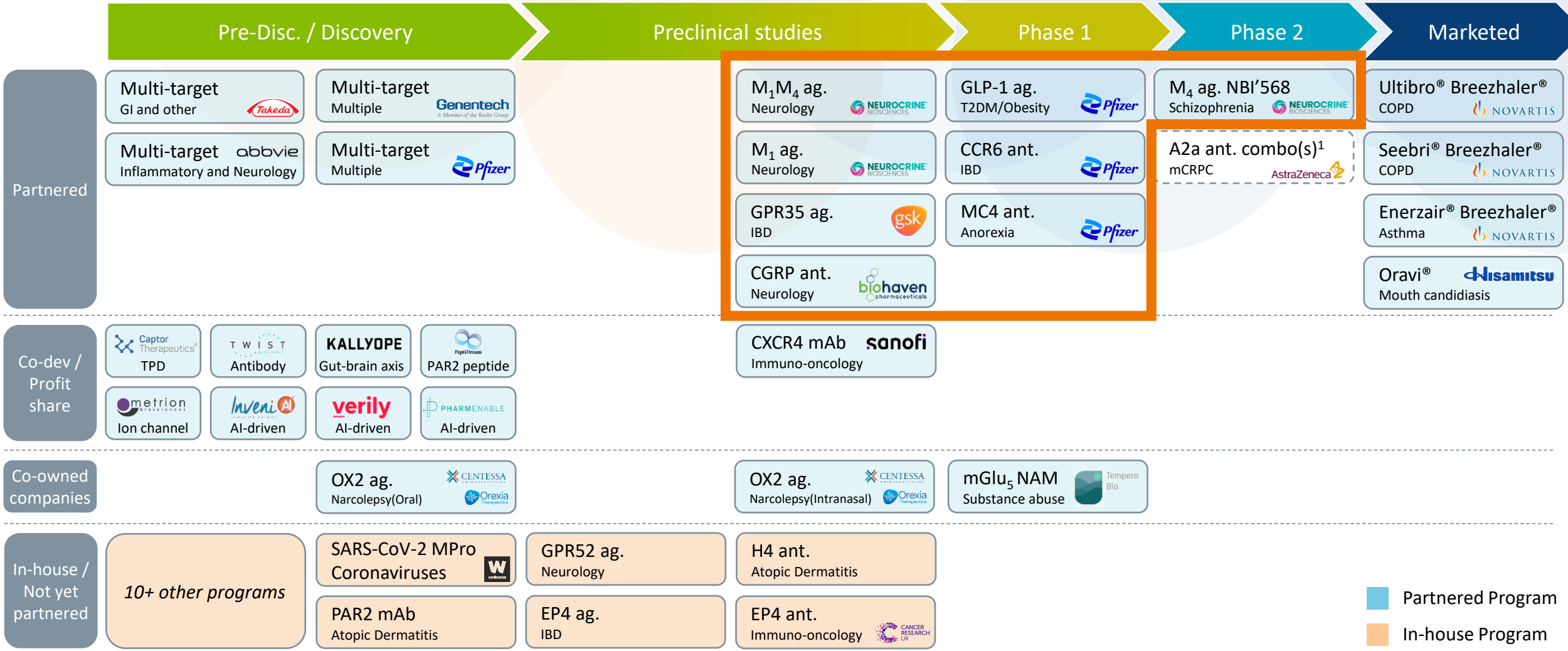
Partnered Program

In-house Program

Note: Seebri®, Ultibro®, Enerzair® and Breezhaler® are registered trademarks of Novartis AG.) [1]AstraZenenca have removed the A2a program from their clinical pipeline as at Q3 2021

sosei HEPTARES

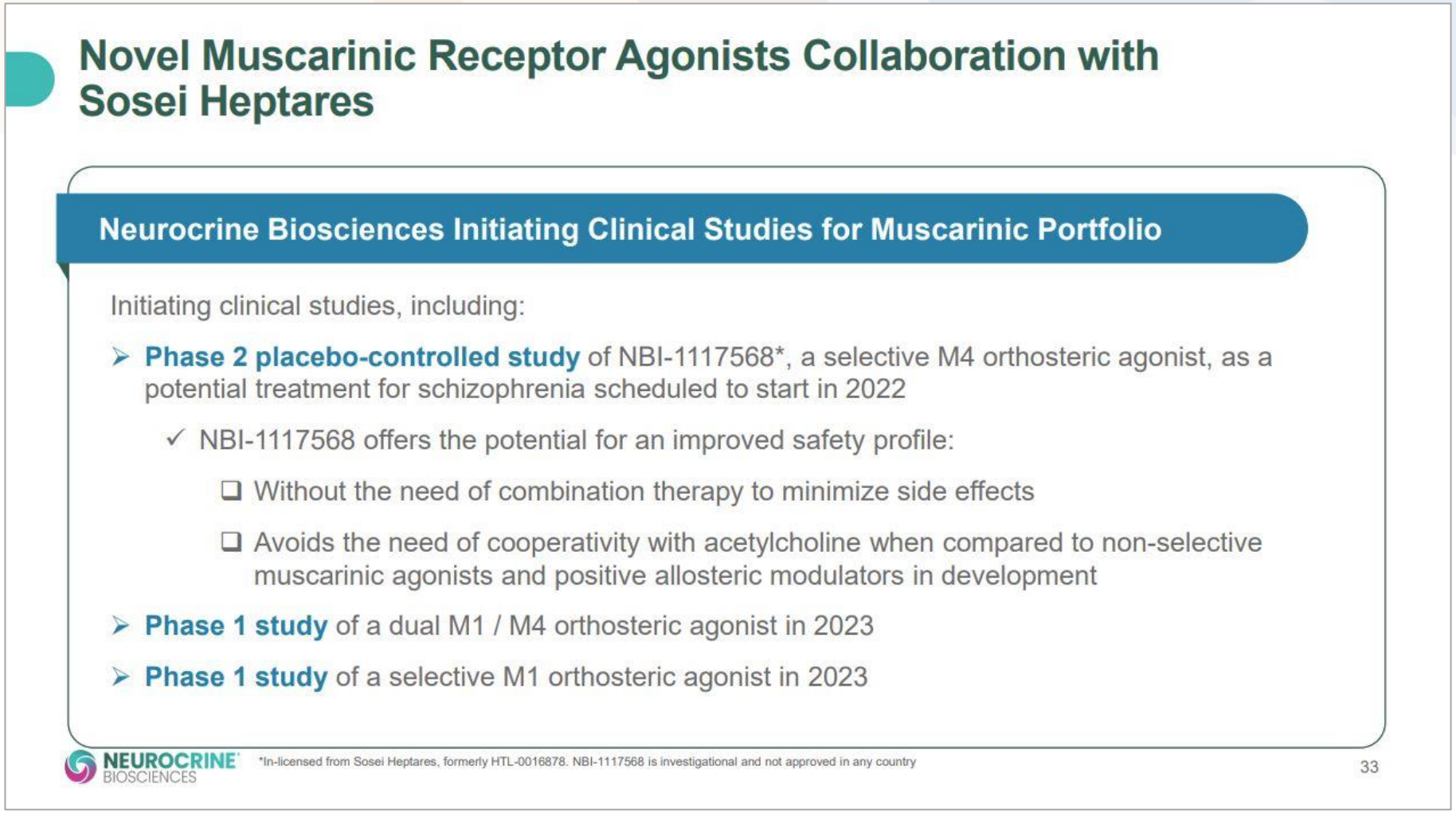
Overview of major pipeline



Note: Seebri®, Ultibro®, Enerzair® and Breezhaler® are registered trademarks of Novartis AG.) [1]AstraZenenca have removed the A2a program from their clinical pipeline as at Q3 2021

Muscarinic M4 agonist (NBI-1117568)

Collaboration with Neurocrine, announced IND of Ph2 study trigger $30 million milestone

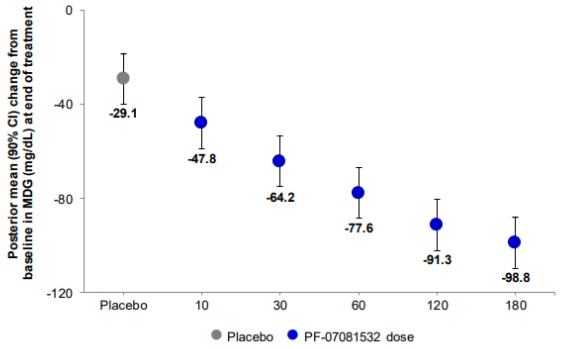


Source: Neurocrine Biosciences Announces Conference Call and Webcast of Second Quarter 2022 Financial Results
https://www.neurocrine.com//assets/2022/08/NBIX-Q2-2022-Earnings-Presentation-Final-08.04.22.pdf

GLP-1 agonist (PF-07081532)

Pfizer recently presented potentially best-in-class data at EASD (19-23 September)

Robust Declines in Mean Daily Glucose with Once-daily PF-07081532 in Participants with T2D



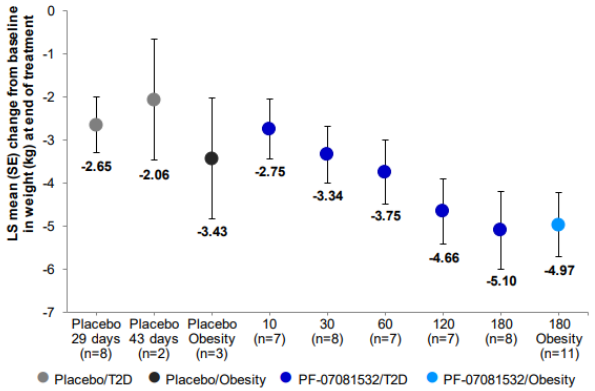
Observed mean reductions from baseline in MDG were dose-dependent

Each of the PF-07081532 doses were statistically significantly different to placebo

A Bayesian 4-parameter dose-response Emax model w as applied to the change from baseline on Day 28 or Day 42. The model included stable dose as a continuous variable and baseline as a covariate. Stable dose refers to the PF-07081532 do (or placebo) that participants received during Days 24 to 28 (28-day) or Days 38 to 42 (42-day). Placebo data w ere pooled across 5 T2D cohorts w ith 28 or 42 days of dosing.
CI, confidence interval; MDG, mean daily glucose; T2D, type 2 diabetes

Pfizer Analyst and Investor Call to Review Oral GLP-1 Data

Dose-responsive Weight Reduction with Once-daily PF-07081532 for 4 to 6 Weeks



While longer duration of intervention is required to assess the effect of treatment on body weight, reductions were observed following dosing with PF-07081532 for 4 to 6 weeks: mean decreases from baseline of up to approx. -5.5% in participants with T2D and approx. -5.2% in participants with obesity

Baseline is defined as the pre-dose measurement on Day 1.
LS, least squares; SE, standard error; T2D, type 2 diabetes

Pfizer Analyst and Investor Call to Review Oral GLP-1 Data 23

Source: Pfizer Analyst and Investor call to review Oral GLP-1 Data – EASD meeting Sep 2022
https://s28.q4cdn.com/781576035/files/doc_presentation/2022/09/2022-EASD-IR_Presentation_FINAL.pdf

sosei HEPTARES

Overview of major pipeline

	Pre-Disc. / Discovery	Preclinical studies	Phase 1	Phase 2	Marketed
Partnered	Multi-target — GI and other (Takeda) Multi-target — Multiple (Genentech) Multi-target — Inflammatory and Neurology (abbvie) Multi-target — Multiple (Pfizer)	M_1M_4 ag. — Neurology (Neurocrine Biosciences) M_1 ag. — Neurology (Neurocrine Biosciences) GPR35 ag. — IBD (gsk) CGRP ant. — Neurology (biohaven pharmaceuticals)	GLP-1 ag. — T2DM/Obesity (Pfizer) CCR6 ant. — IBD (Pfizer) MC4 ant. — Anorexia (Pfizer)	M_4 ag. NBI'568 — Schizophrenia (Neurocrine Biosciences) A2a ant. combo(s)[1] — mCRPC (AstraZeneca)	Ultibro® Breezhaler® — COPD (Novartis) Seebri® Breezhaler® — COPD (Novartis) Enerzair® Breezhaler® — Asthma (Novartis) Oravi® — Mouth candidiasis (Hisamitsu)
Co-dev / Profit share	Captor Therapeutics — TPD TWIST — Antibody KALLYOPE — Gut-brain axis PeptiDream — PAR2 peptide metrion — Ion channel Inveni AI — AI-driven verily — AI-driven PHARMENABLE — AI-driven	CXCR4 mAb — Immuno-oncology (sanofi)			
Co-owned companies		OX2 ag. — Narcolepsy(Oral) (Centessa / Orexia Therapeutics)	OX2 ag. — Narcolepsy(Intranasal) (Centessa / Orexia Therapeutics) $mGlu_5$ NAM — Substance abuse (Tempero Bio)		
In-house / Not yet partnered	*10+ other programs*	SARS-CoV-2 MPro Coronaviruses (Wellcome) PAR2 mAb — Atopic Dermatitis GPR52 ag. — Neurology EP4 ag. — IBD	H4 ant. — Atopic Dermatitis EP4 ant. — Immuno-oncology (Cancer Research UK)		

Partnered Program

In-house Program

Note: Seebri®, Ultibro®, Enerzair® and Breezhaler® are registered trademarks of Novartis AG.) [1]AstraZenenca have removed the A2a program from their clinical pipeline as at Q3 2021

sosei HEPTARES

Multi-target collaboration partners

Making excellent progress with new and long-term partnered programs

Partner	Execution	Therapeutic Area	Stage	Progress
Pfizer	November 2015	Multiple	Phase 1	x3 clinical stage assets achieved in 6 years and clinical development is ongoing
Genentech A Member of the Roche Group	July 2019	Multiple	Discovery	x5 milestones achieved in 3 years with targets for small and large molecule drugs
Takeda	August 2019	Multiple (Initial focus on Gastrointestinal)	Discovery	Early Discovery milestones achieved
abbvie	June 2020 **August 2022**	Inflammatory, Autoimmune and Neurology	Discovery	

sosei HEPTARES

Sosei Heptares and AbbVie collaboration

Multi-target collaboration announced – upfront payment of $40 million

PRESS RELEASE

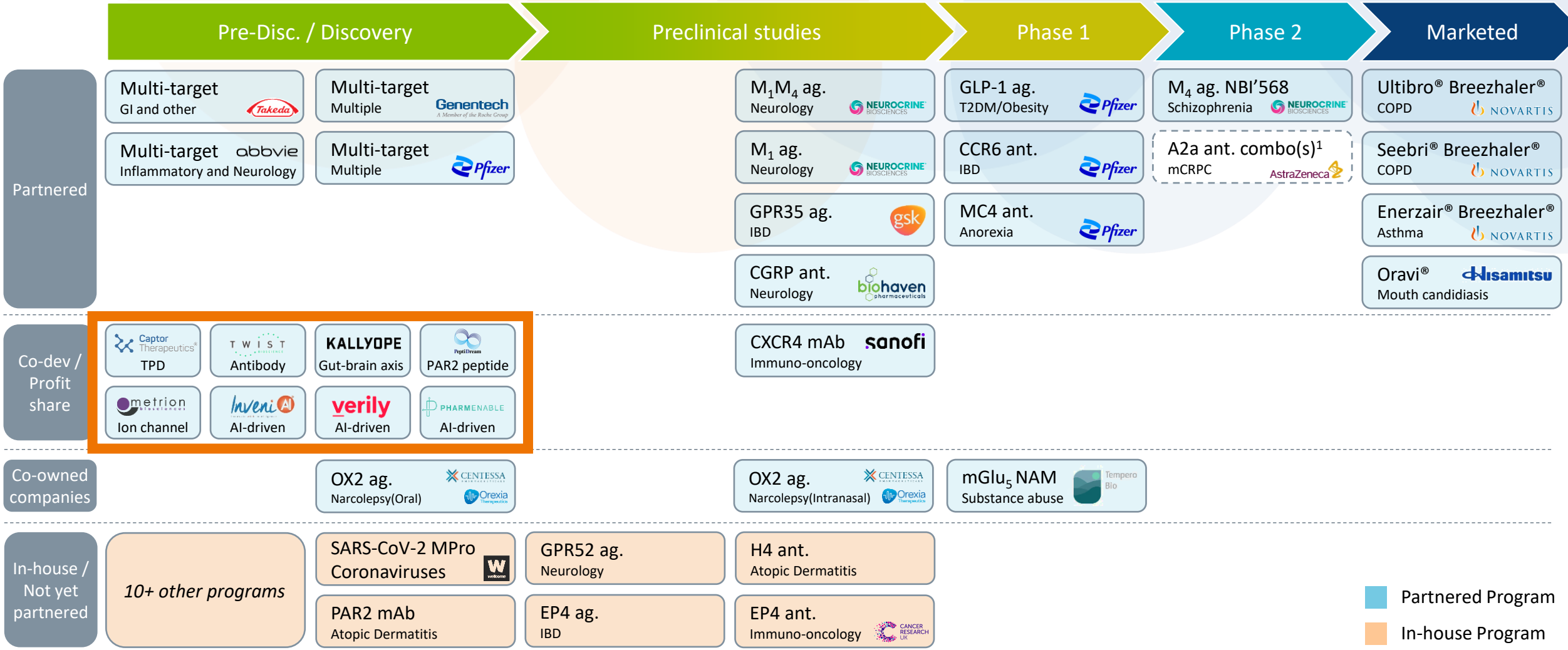
Sosei Heptares and AbbVie Enter New Multi-target Collaboration to Discover, Develop and Commercialize Novel Medicines Targeting Neurological Diseases

- *New strategic collaboration leverages Sosei Heptares' StaR® technology and SBDD platform and AbbVie's extensive neuroscience expertise*
- *Second collaboration with AbbVie follows 2020 agreement focused on inflammatory and autoimmune diseases*
- *Sosei Heptares eligible to receive up to $80 million in upfront and near-term milestone payments and has potential to receive further downstream payments totalling up to US$1.2 billion, plus tiered royalties*

Tokyo, Japan and Cambridge, UK, 2 August 2022 – Sosei Group Corporation ("the Company"; TSE: 4565) and AbbVie (NYSE: ABBV), a research-based global biopharmaceutical company, announce they have entered a new drug discovery collaboration and option-to-license agreement to discover, develop and commercialize small molecules that modulate novel G protein-coupled receptor (GPCR) targets associated with neurological disease.

Source: https://soseiheptares.com/uploads/news/id785/2022.08.02%20Neu%20Highland%20_vF.pdf df

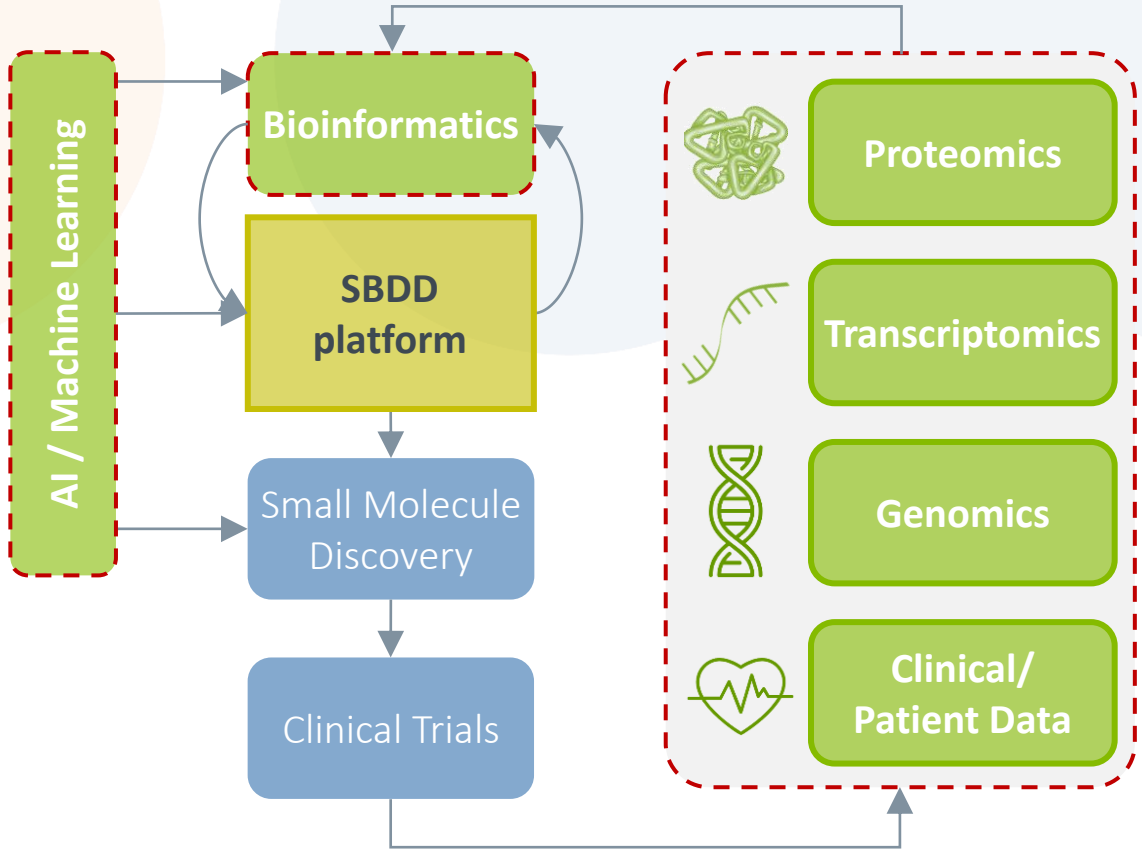
Overview of major pipeline



Note: Seebri®, Ultibro®, Enerzair® and Breezhaler® are registered trademarks of Novartis AG.) [1]AstraZenenca have removed the A2a program from their clinical pipeline as at Q3 2021

New Target Identification and Validation (TIV) framework to give us the next generation of GPCR targets

Aim	To support the identification and validation of **new drug GPCR targets** across our core therapeutic areas (GI, immunology, immuno-oncology and neuroscience)
How	By leveraging top-end external company **omics platforms/databases** and validation capabilities
Why	To add exciting novel GPCR targets to our pipeline which have evidence of a **direct involvement in a disease / mechanism process** to fuel partnering activity and higher value creation



Continuously expanding our know-how and SBDD platform to maintain our leadership position in GPCR drug discovery

Strategic collaboration partners

Identification and validation of novel GPCR targets for new discovery programs

2021~

InveniAI
Innovate with Intelligence

AI drug discovery (Target)

- Discovery collaboration combining InveniAI's AI-powered platform for target discovery with SH's GPCR SBDD and early development capabilities
- Collaboration aims to identify new therapeutic product concepts for immune diseases and generate novel compounds that could improve responses to existing immunotherapies

Immunology/Multi-target

2022~

verily

AI drug discovery (Target)

- Research collaboration combining Verily's immune profiling capabilities and SH's StaR® platform and SBDD capabilities
- Collaboration aims to identify GPCRs expressed in immune cells, enhance our understanding of their functional relevance and prosecute as potential drug targets in immune-mediated diseases

Immunology/Multi-target

2022~

KALLYOPE

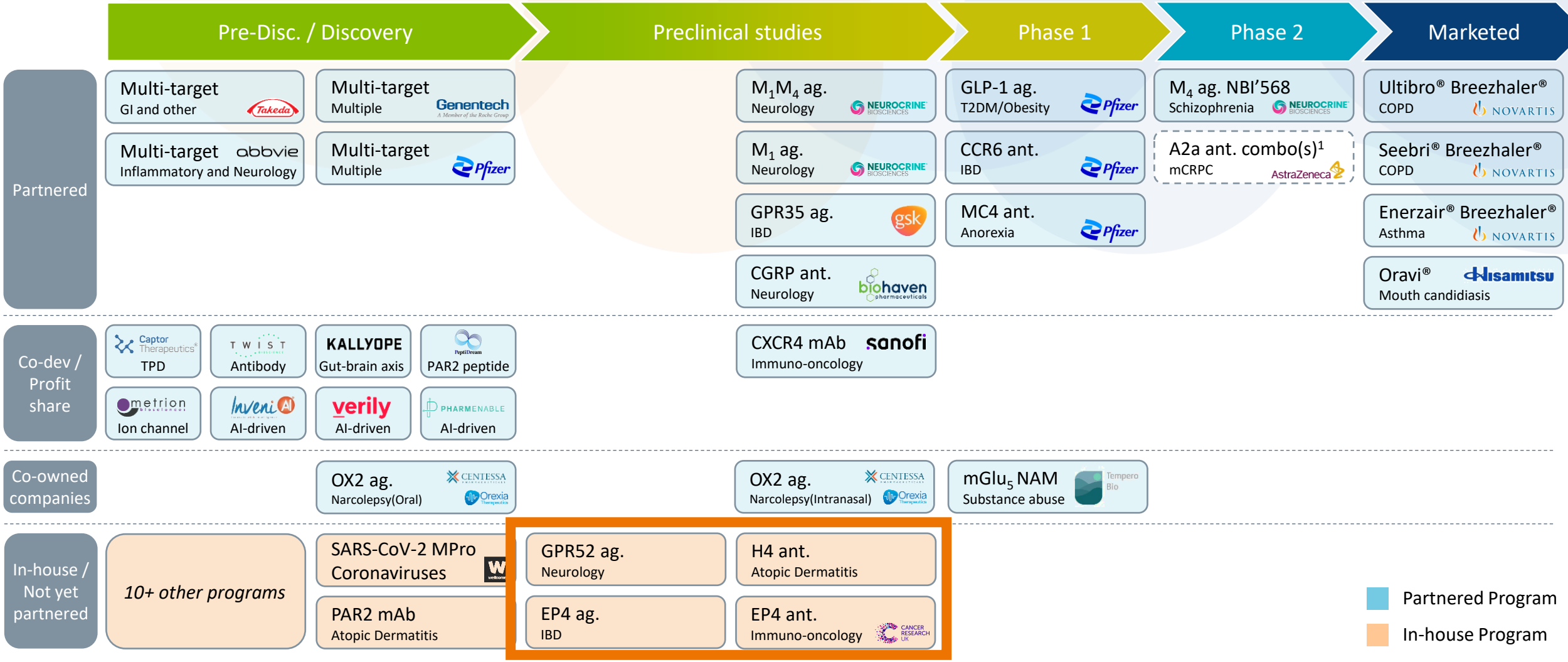
Gut-brain axis platform (Target)

- Strategic research collaboration leveraging Sosei Heptares capabilities with Kallyope's gut-brain axis platform
- Collaboration aims to identify, prioritize and validate novel GPCR targets with a goal of creating new drug discovery programs in the area of gastrointestinal (GI) diseases

Gastroenterology/Multi-target

sosei HEPTARES

Overview of major pipeline



Note: Seebri®, Ultibro®, Enerzair® and Breezhaler® are registered trademarks of Novartis AG.) [1]AstraZenenca have removed the A2a program from their clinical pipeline as at Q3 2021

Advancing four wholly-owned programs

Advancing priority programs into early clinical studies, including collaboration with CRUK

Indication and target	Schizophrenia and Psychosis	Atopic Dermatitis	Immunosuppression in solid tumors	Inflammatory Bowel Disease
	GPR52 agonist	H4 antagonist	EP4 antagonist	EP4 agonist
Target Product Profile	• Once daily oral small molecule • 24hr target engagement	• Once daily oral small molecule • To be used as a monotherapy or in combination	• Once daily oral small molecule • To be used in combo with checkpoint inhibitors • Collaboration with CRUK	• Oral GI restricted • Good potency and selectivity • Minimal GI systemic exposure
Clinical start target	H1 2023	H1 2023	H1 2023 CANCER RESEARCH UK	End of 2023

sosei HEPTARES

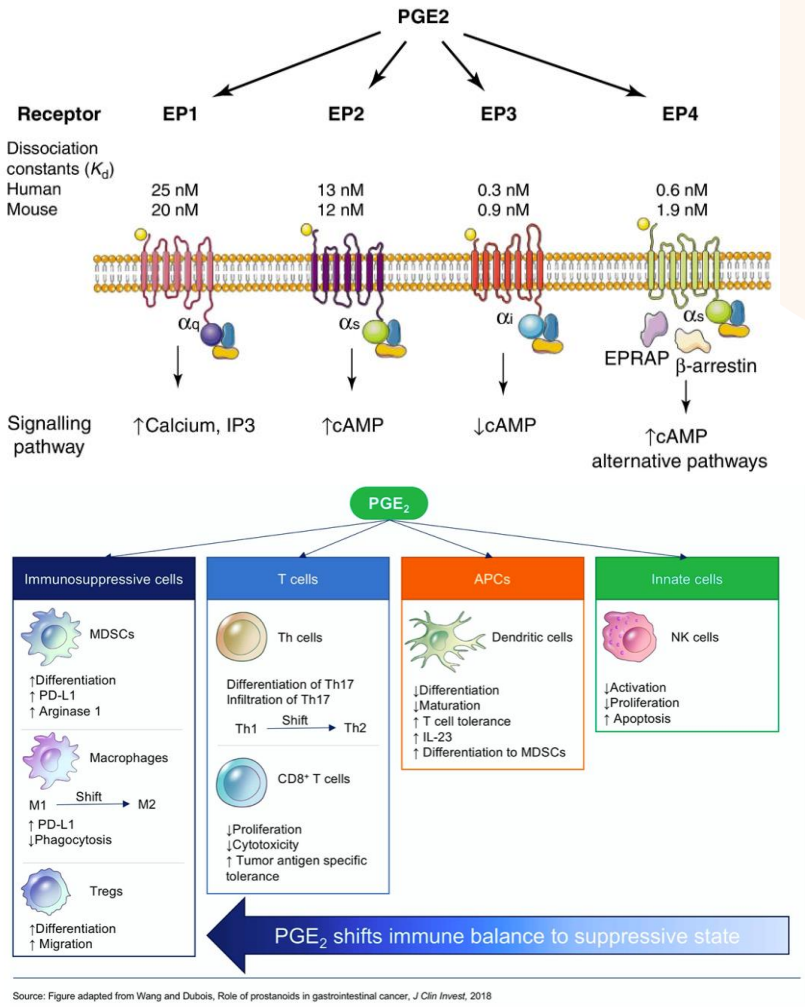
3

Priority Wholly-owned Programs (EP4 antagonist and EP4 agonist)

Dr. Rie Suzuki, Senior Director, Translational Biology

EP4 receptor: GPCR with multiple therapeutic opportunities

EP4 is a key receptor for PGE2

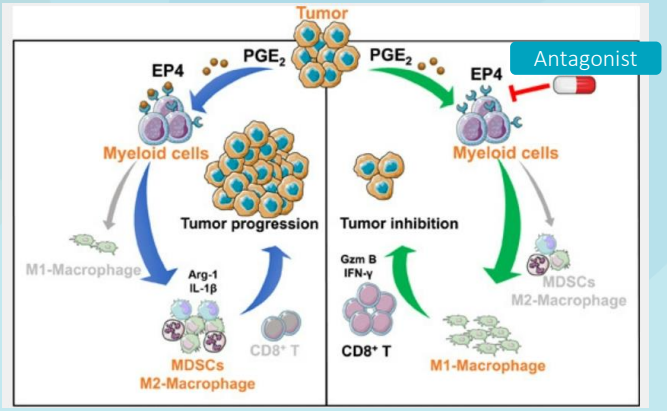


Source: Figure adapted from Wang and Dubois, Role of prostanoids in gastrointestinal cancer, *J Clin Invest*, 2018

Potent anti-inflammatory action

Immuno-oncology

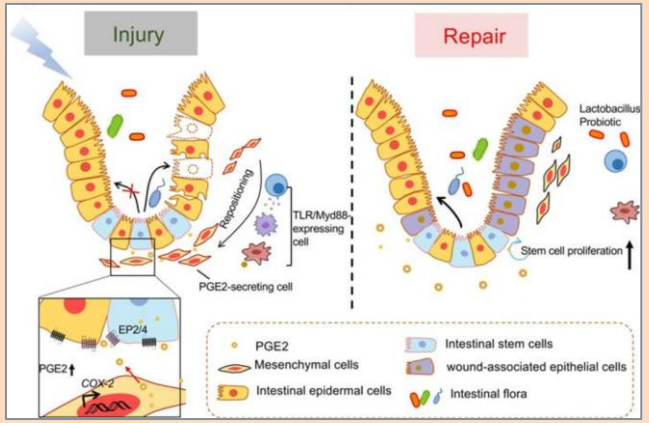
EP4 Antagonist



Project Hypothesis: Restore immune surveillance and enhance efficacy of checkpoint inhibitors

Inflammatory bowel disease

EP4 Agonist



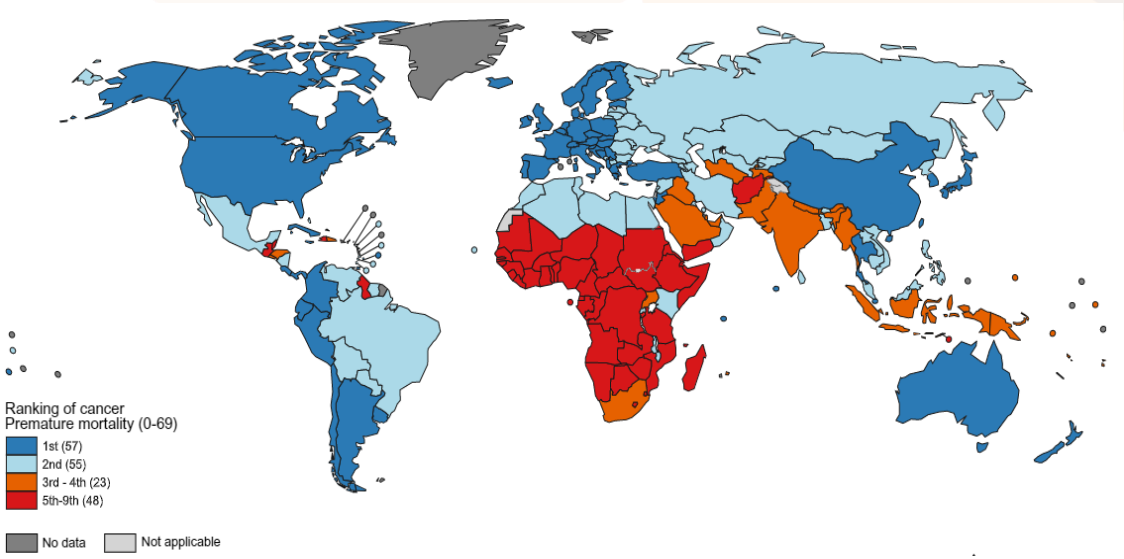
Project Hypothesis: Dampen inflammation, restore gut homeostasis and accelerate mucosal healing

https://doi.org/10.15252/emmm.202012798

sosei HEPTARES

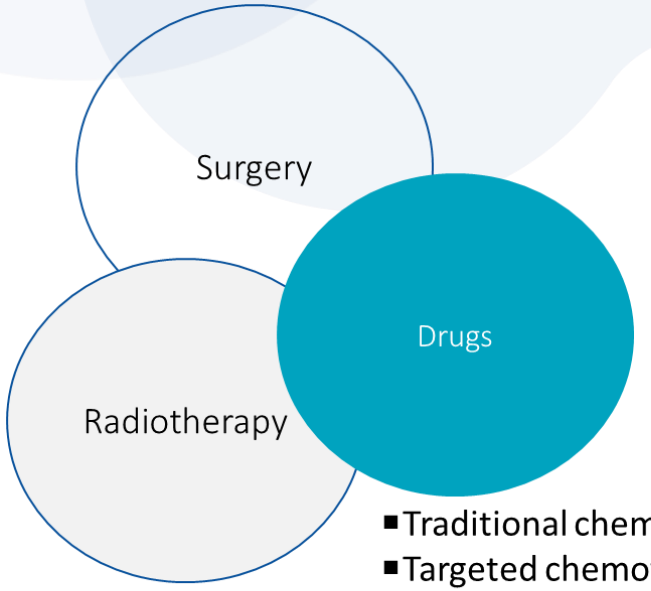
Cancer is the leading cause of premature death in high development index countries

National Ranking of Cancer as a Cause of Death at Ages <70 Years in 2019.



National Ranking of Cancer as a Cause of Death at Ages <70 Years in 2019. The numbers of countries represented in each ranking group are included in the legend. Source: World Health Organization.

Current treatments



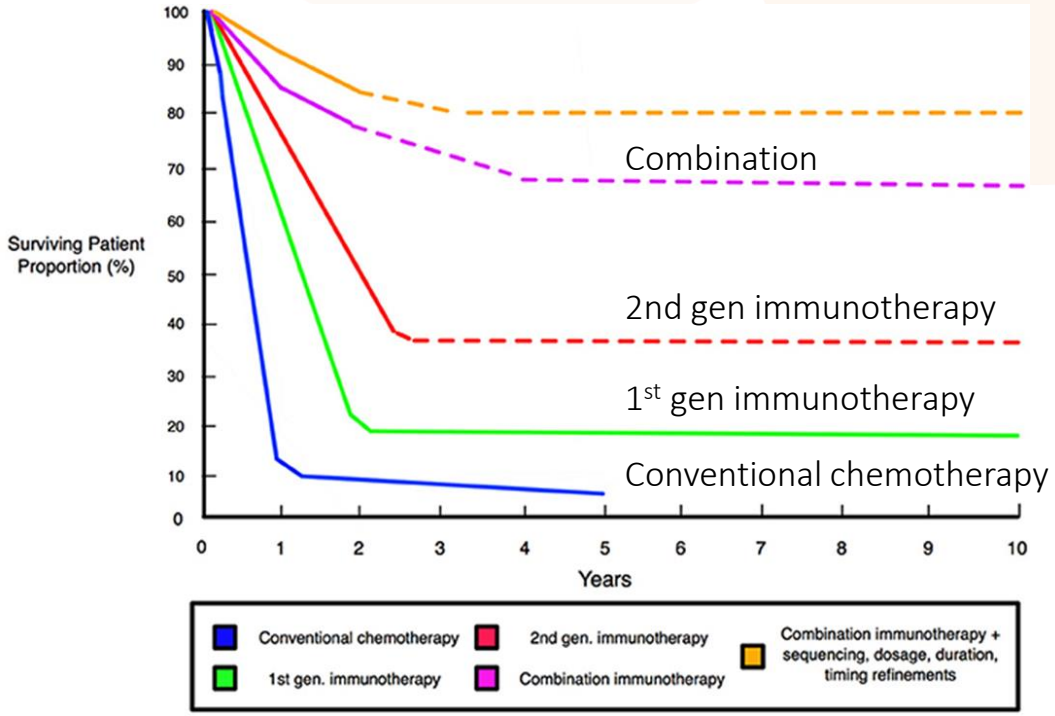
- Traditional chemotherapy drugs
- Targeted chemotherapy
- Hormonal therapies
- Immunotherapy

Sung et al (2021) Global Cancer Statistics 2020: GLOBOCAN Estimates of Incidence and Mortality Worldwide for 36 Cancers in 185 Countries. CA CANCER J CLIN 2021;71:209–249
https://ganjoho.jp/public/qa_links/report/statistics/2021_en.html

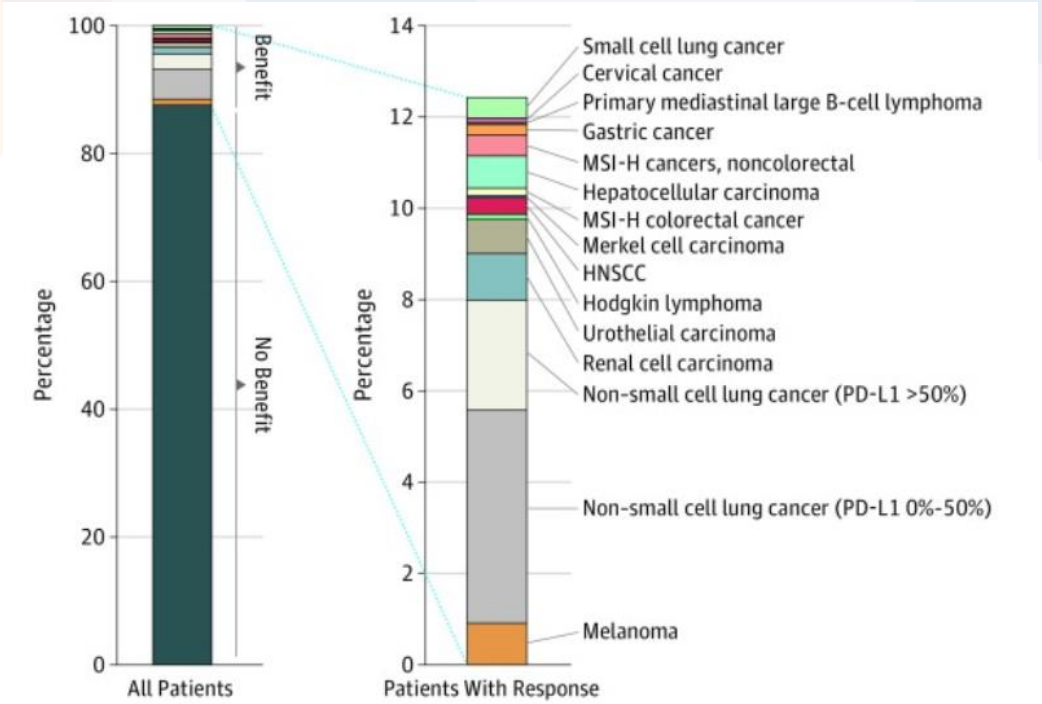
sosei HEPTARES

Immunotherapy offers improved survival in some patients – but room for improved efficacy

Immunotherapy provides lasting remission for some patients



Only <20% patients eligible for Checkpoint inhibitors respond to treatment



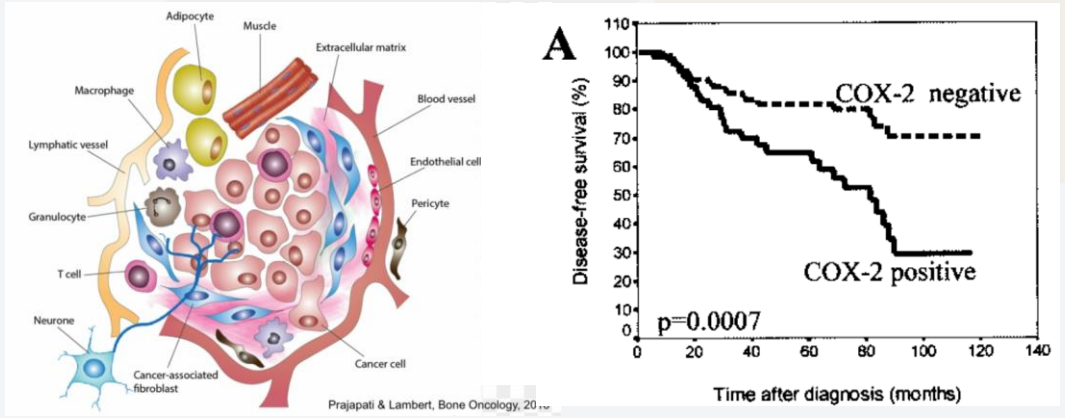
Haslam & Prasad (2019); JAMA Network Open; 2(5): e192535
First generation immunotherapies: anti-CTLA-4 ipilimumab and the therapeutic vaccine Sipuleucel-T
Second generation immunotherapies target PD-1/PD-L1 and deliver effective responses in up to 40% of patients across many clinical trials

sosei HEPTARES

EP4 Antagonist and role in cancer

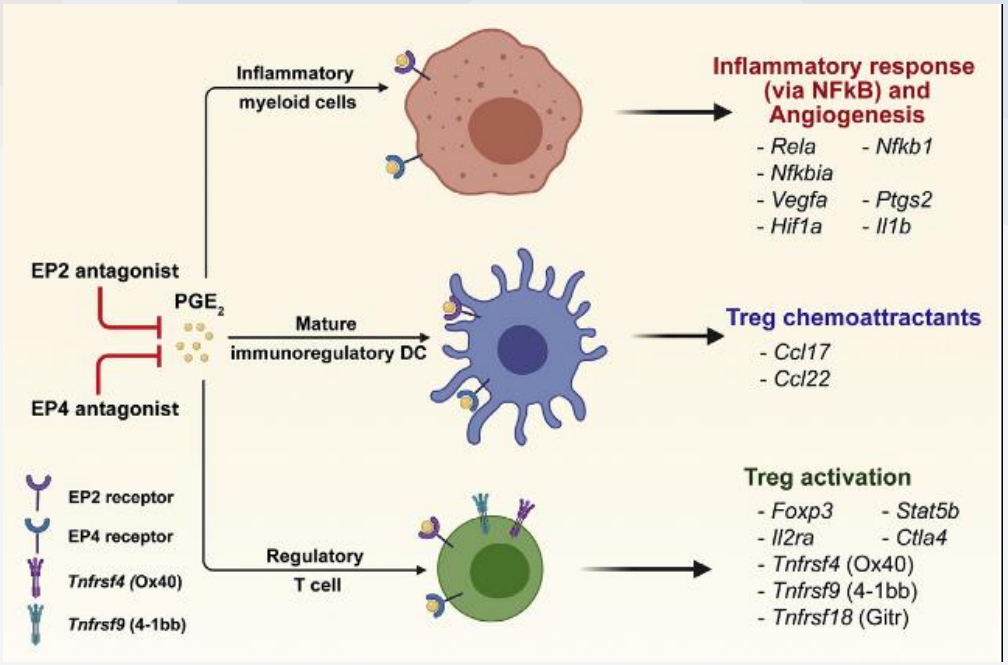
PGE2 and COX2 is elevated in tumour microenvironment and contributes to poorer prognosis in cancer

Tumour microenvironment (TME)



PGE2 & COX2 in TME → Cancer cell survival, Migration & invasion, Angiogenesis, Immunosuppression → Poorer prognosis

How do EP4 antagonists provide therapeutic benefits?



Block of PGE2-EP4 signalling will lead to:

- Reduced immune suppression of the TME
- Enhanced antigen presentation
- Activation of T and NK cells
- Inhibition of tumor proliferation/ metastasis

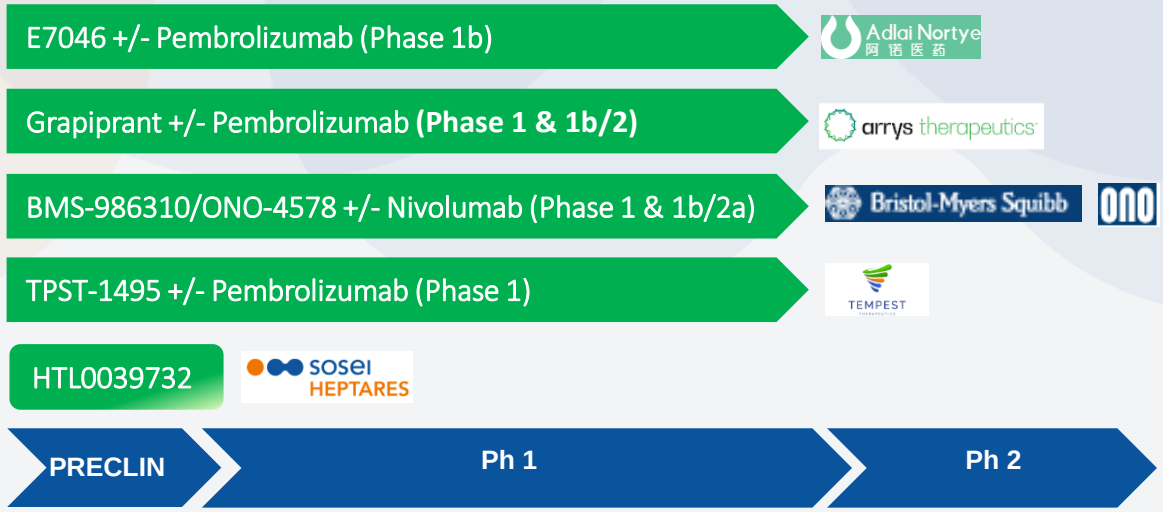
EP4 Antagonist target molecule profile

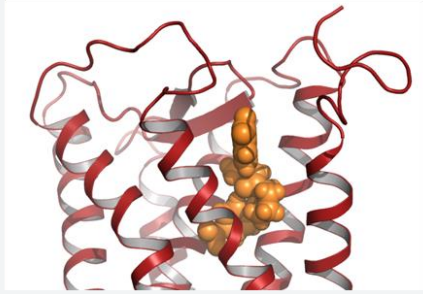
Early chemistry H2L inspired from extensive literature ligand mining

EP4 Antagonist Chemistry Strategy

- **Goal**: Identify potent, EP4 selective antagonist targeting high receptor cover (C_{min} > IC_{90} over 24 hrs) from a low oral dose (<100 mg)
- Utilise SBDD approach to identify best-in-class agent
  - Wealth of published prostanoid structures and internal StaR mutagenesis work facilitated development of homology models
- Multi-series approach driven by deep literature/patent mining to design novel ligands

EP4 Antagonist Competitor Landscape





Sosei Heptares EP4 antagonist structure

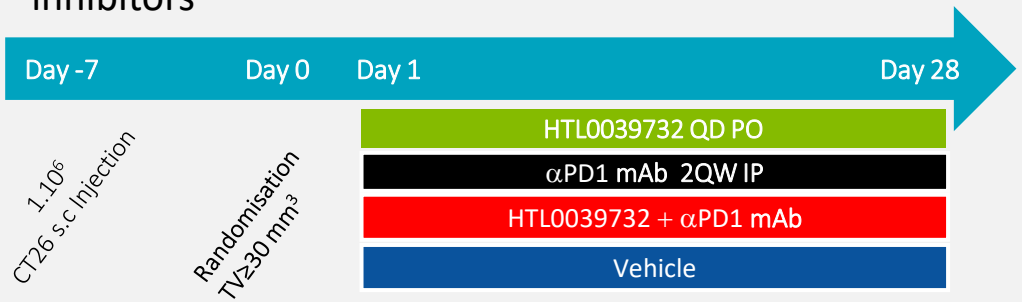
Sosei Heptares EP4 Antagonist molecule profile: HTL0039732

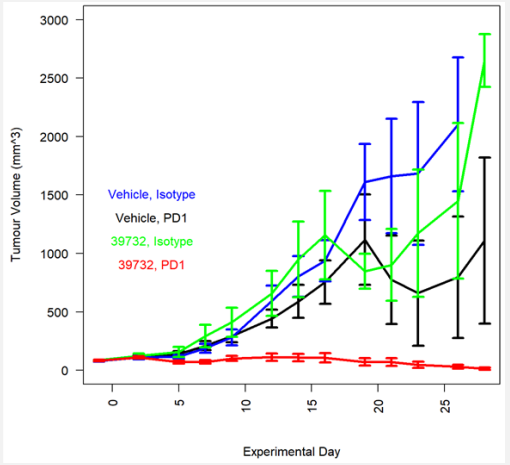
Sosei Heptares EP4 antagonist molecule Profile

- ✓ High potency
- ✓ High selectivity vs EP2 agonism
- ✓ Excellent in vitro safety profile
- ✓ Excellent in vitro ADME properties
- ✓ Excellent PK profile across 3 sp. (low Cl, long $T_{1/2}$)
- ✓ High free fold cover at low doses

HTL0039732 displays synergy with αPD1 mAb

Blockade of EP4 in PGE2 high tumours will restore immune surveillance facilitating enhanced efficacy of checkpoint inhibitors



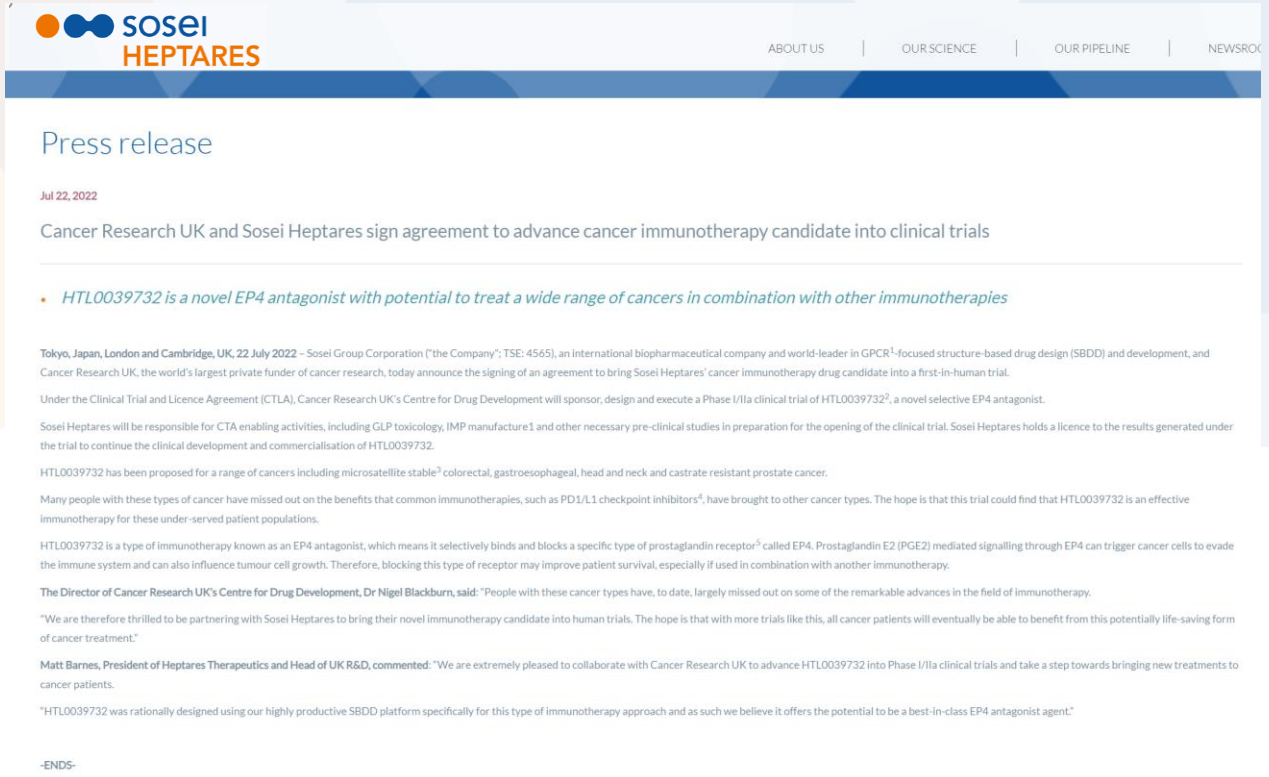


↓↓Tumour volume

Summary and future directions

- Sosei Heptares (SH) has successfully utilised the Proprietary StaR® platform and Structure based drug design to develop novel, high potency EP4 antagonist, HTL0039732.

- HTL0039732 has broad potential use in treatment of solid tumours in combination with immune checkpoint inhibitors (CPI), with targeted therapies and with chemotherapy and radiotherapy



sosei HEPTARES

ABOUT US | OUR SCIENCE | OUR PIPELINE | NEWSROO

Press release

Jul 22, 2022

Cancer Research UK and Sosei Heptares sign agreement to advance cancer immunotherapy candidate into clinical trials

- *HTL0039732 is a novel EP4 antagonist with potential to treat a wide range of cancers in combination with other immunotherapies*

Tokyo, Japan, London and Cambridge, UK, 22 July 2022 – Sosei Group Corporation ("the Company"; TSE: 4565), an international biopharmaceutical company and world-leader in GPCR[1]-focused structure-based drug design (SBDD) and development, and Cancer Research UK, the world's largest private funder of cancer research, today announce the signing of an agreement to bring Sosei Heptares' cancer immunotherapy drug candidate into a first-in-human trial.

Under the Clinical Trial and Licence Agreement (CTLA), Cancer Research UK's Centre for Drug Development will sponsor, design and execute a Phase I/IIa clinical trial of HTL0039732[2], a novel selective EP4 antagonist.

Sosei Heptares will be responsible for CTA enabling activities, including GLP toxicology, IMP manufacture1 and other necessary pre-clinical studies in preparation for the opening of the clinical trial. Sosei Heptares holds a licence to the results generated under the trial to continue the clinical development and commercialisation of HTL0039732.

HTL0039732 has been proposed for a range of cancers including microsatellite stable[3] colorectal, gastroesophageal, head and neck and castrate resistant prostate cancer.

Many people with these types of cancer have missed out on the benefits that common immunotherapies, such as PD1/L1 checkpoint inhibitors[4], have brought to other cancer types. The hope is that this trial could find that HTL0039732 is an effective immunotherapy for these under-served patient populations.

HTL0039732 is a type of immunotherapy known as an EP4 antagonist, which means it selectively binds and blocks a specific type of prostaglandin receptor[5] called EP4. Prostaglandin E2 (PGE2) mediated signalling through EP4 can trigger cancer cells to evade the immune system and can also influence tumour cell growth. Therefore, blocking this type of receptor may improve patient survival, especially if used in combination with another immunotherapy.

The Director of Cancer Research UK's Centre for Drug Development, Dr Nigel Blackburn, said: "People with these cancer types have, to date, largely missed out on some of the remarkable advances in the field of immunotherapy.

"We are therefore thrilled to be partnering with Sosei Heptares to bring their novel immunotherapy candidate into human trials. The hope is that with more trials like this, all cancer patients will eventually be able to benefit from this potentially life-saving form of cancer treatment."

Matt Barnes, President of Heptares Therapeutics and Head of UK R&D, commented: "We are extremely pleased to collaborate with Cancer Research UK to advance HTL0039732 into Phase I/IIa clinical trials and take a step towards bringing new treatments to cancer patients.

"HTL0039732 was rationally designed using our highly productive SBDD platform specifically for this type of immunotherapy approach and as such we believe it offers the potential to be a best-in-class EP4 antagonist agent."

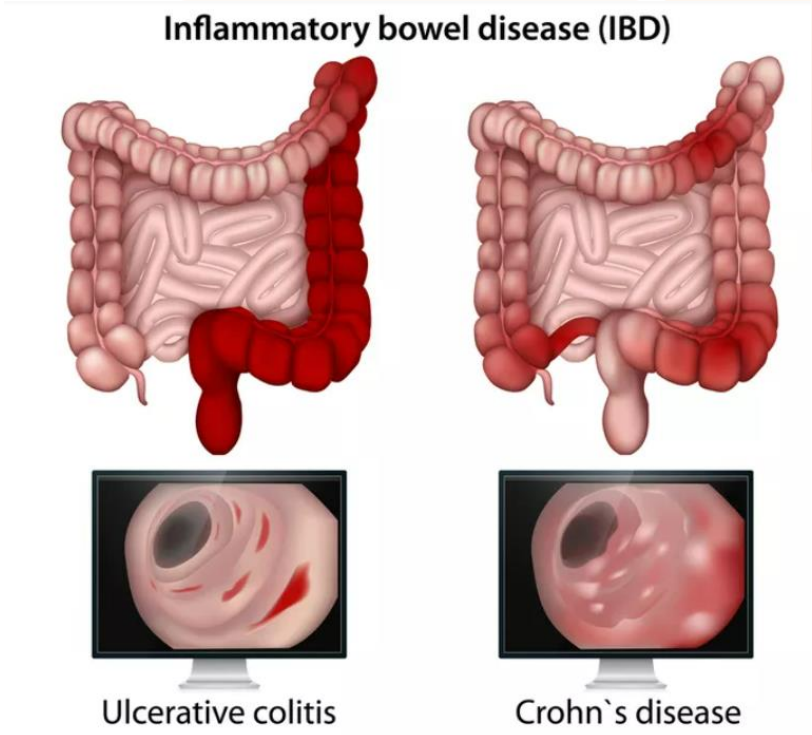
-ENDS-

- Under the Clinical Trial and Licence Agreement (CTLA), Cancer Research UK's Centre for Drug Development will sponsor, design and execute a Phase I/IIa clinical trial of HTL0039732[2], a novel selective EP4 antagonist.
- HTL0039732 has been proposed for a range of cancers including microsatellite stable[3] colorectal, gastroesophageal, head and neck and castrate resistant prostate cancer.

sosei HEPTARES

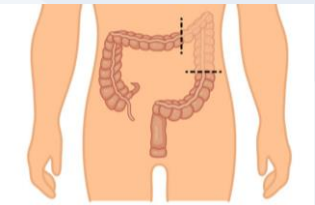
Opportunities for EP4 Agonist for the treatment of IBD

What is IBD?

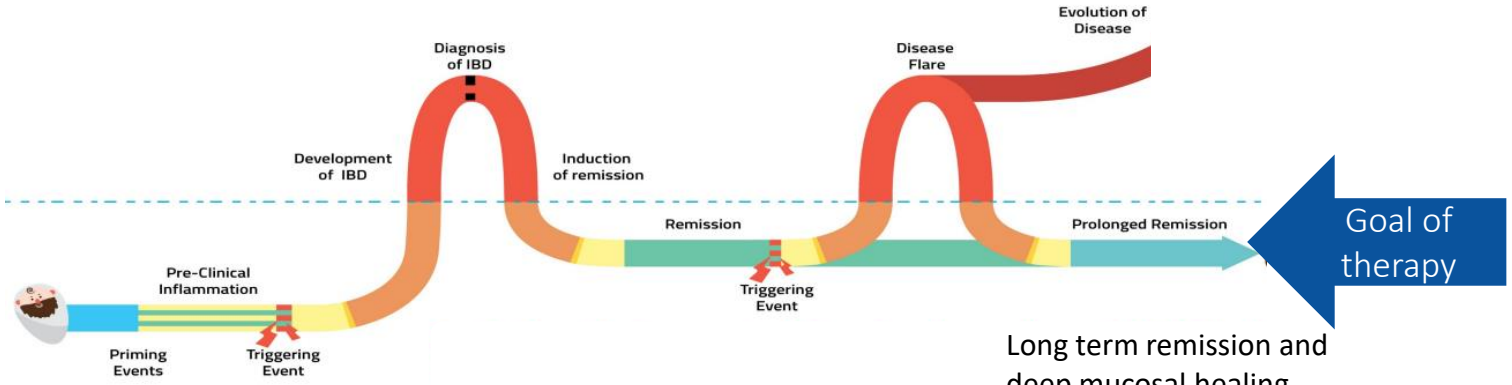


Typical course of disease progression in IBD:

Disease cycles through episodes of active flare & remission



Uncontrolled inflammation
Bowel resection



Long term remission and deep mucosal healing

Current SOC primarily target the immune axis: opportunity for differentiation

Unmet need remains in IBD despite biologic therapy

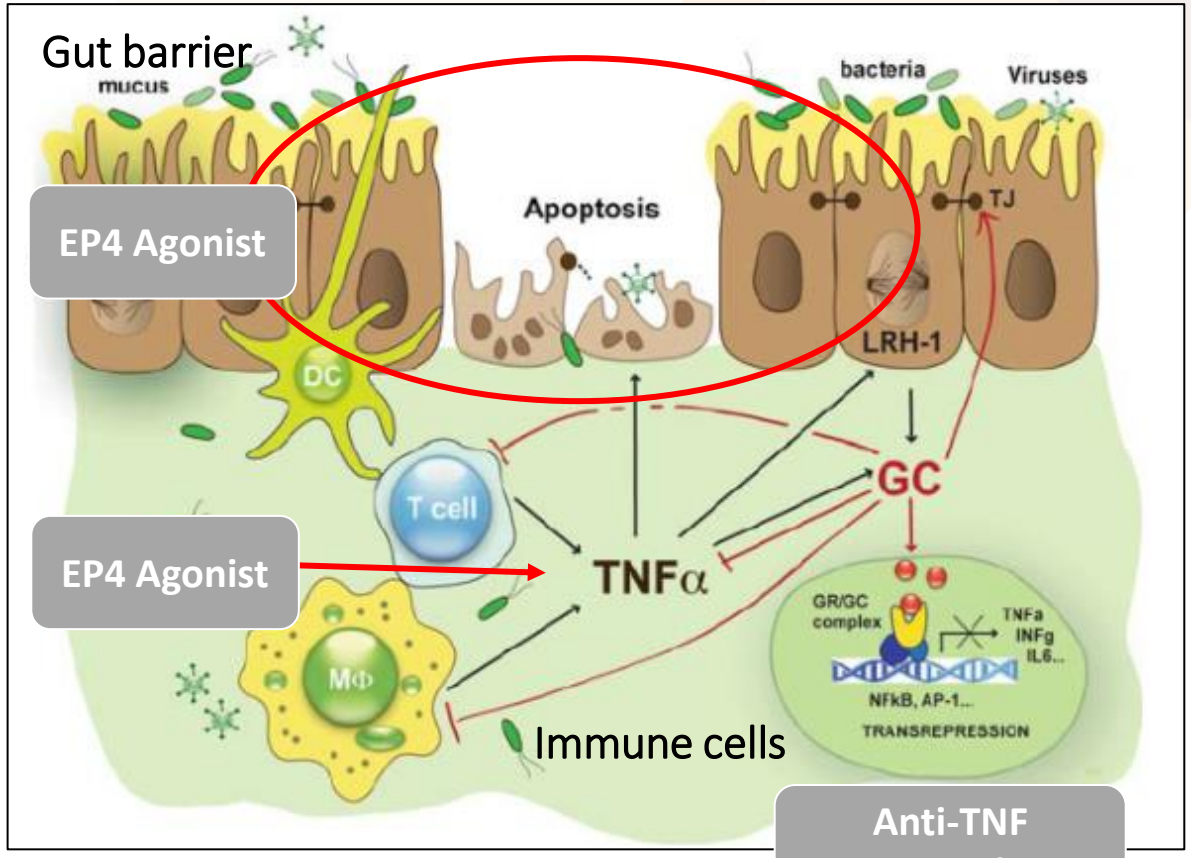
		Remicade	Humira	Simponi	Entyvio	Stelera
Manufacturer		Janssen/Merck	Abbvie	Janssen/Merck	Takeda	Janssen
Mechanism		Anti-TNF	Anti-TNF	Anti-TNF	Anti-$\alpha 4\beta 7$	Anti IL12/IL23
Rate of remission: Induction	Placebo	15%	9.3%	9.5%	5.4%	7%
	Active	39% (W8)	16.5% (W8)	17.8% (W6)	16.9%	19%
Rate of remission: Maintenance	Placebo	17%	8.5%	15.4%	15.9%	26%
	Active	35% (W54)	17.3% (W52)	28.6% (W52)	41.8%	45%
Key safety information		Boxed warning	Boxed warning	Boxed warning	Warning for PML	Warning for infections, malignancies, RPLS, pneumonia

PML = Progressive Multifocal Leukoencephalopathy; RPLS = Reversible posterior leukoencephalopathy syndrome

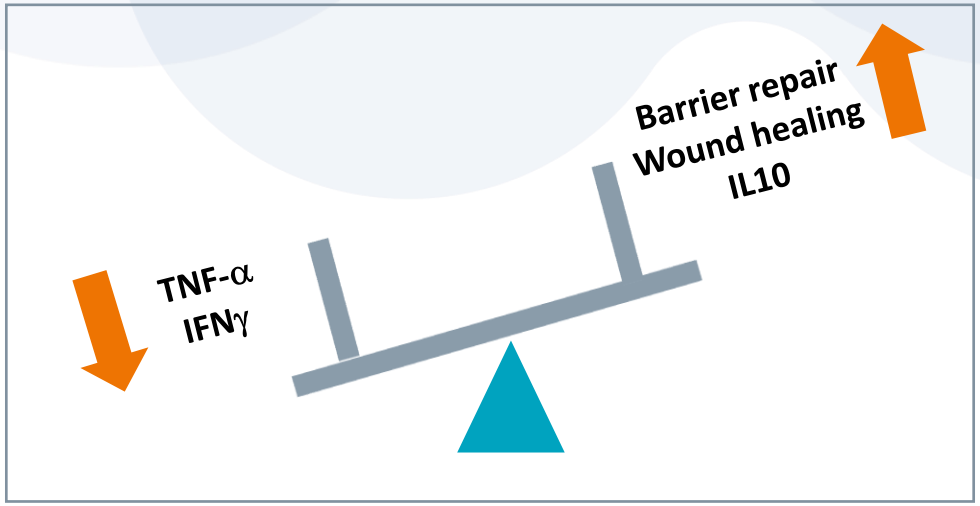
sosei HEPTARES

Proposed benefits of EP4 Agonist in IBD

Target hypothesis



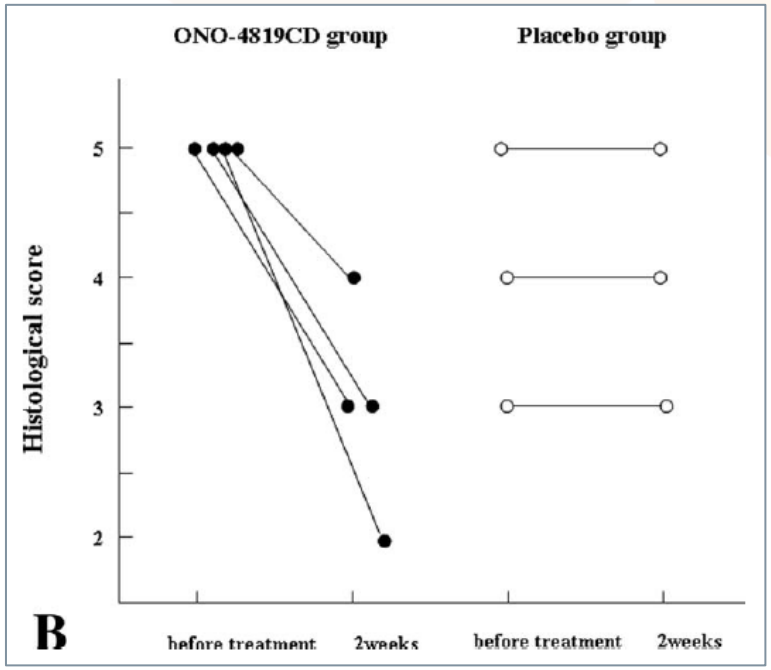
EP4 Agonist produces potent anti-inflammatory activity and enhances barrier repair & regeneration



- EP4 agonist represents a novel MOA targeting a differentiated axis to current SOC.
- Opportunity to enhance efficacy in IBD via combination therapy (e.g. anti-TNF)

ONO4819-CD EP4 agonist in patients with mild to moderate UC

Disease activity index and histological scores following ONO-4819 or placebo treatment



- Randomised Placebo controlled PhII trial
- Mild to moderate UC patients refractory to 5-aminosalicylates

Early signs of histological benefit demonstrated in ONO-4819CD group after 2 weeks treatment

Nakase et al (2010); Inflamm Bowel Dis, 16; 731

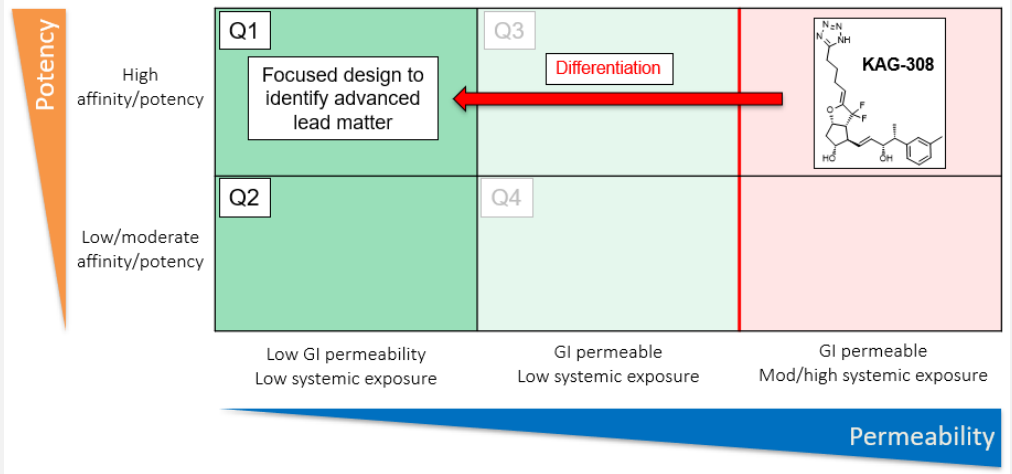
sosei HEPTARES

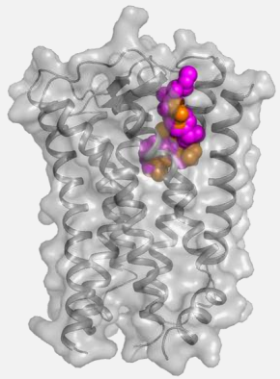
Sosei Heptares GI restricted EP4 Agonist program

EP4 Agonist Chemistry strategy

- **Goal**: Identify potent, oral GI restricted EP4 selective agonist with minimal systemic exposure
- SBDD driven design to optimise molecules to minimise oral absorption
- Identification of novel EP4 agonists with excellent in vitro pharmacological activity and selectivity
  - Superior EP selectivity compared to KAG308
- Excellent physicochemical and DMPK properties aligned to minimal systemic exposure profile
  - Clear differentiation in terms of systemic exposure and luminal drug distribution

Sosei Heptares Chemistry and Differentiation





Competitor status:

KAG308 (Kaken Pharmaceuticals): UC

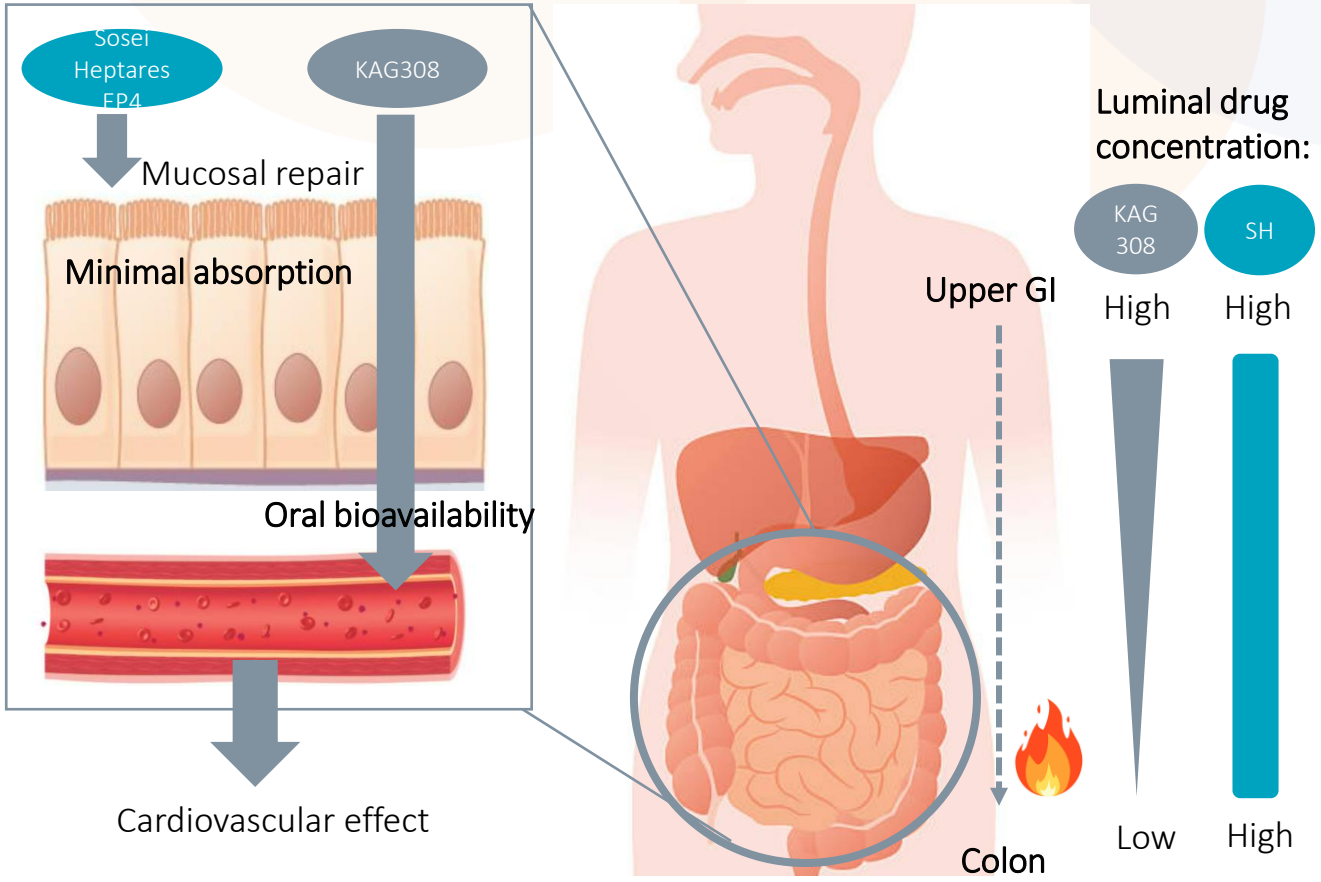
- Status: Inactive*
- RoA: Oral

ONO-4819CD (Ono Pharmaceuticals): UC

- Status: Discontinued
- RoA: IV

* Source: Global Data

Sosei Heptares GI restricted EP4 agonist offers a novel approach to target IBD disease



	ONO4819	KAG308	Sosei EP4 Agonist
Route	IV	Oral	Oral
Permeability		Permeable	Low
Systemic exposure	Yes	Yes	Minimal absorption
Potency	+	+++	+++
EP Selectivity		+	+++
Colon tissue concentration	+	+	+++

<u>Successful design of a novel, GI restricted EP4 agonist:</u>

High affinity, potent full agonist, good EP receptor selectivity

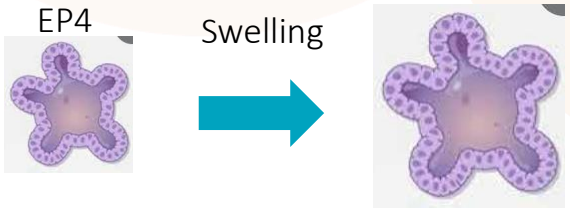
Low permeability, minimal oral absorption

Good in vivo efficacy

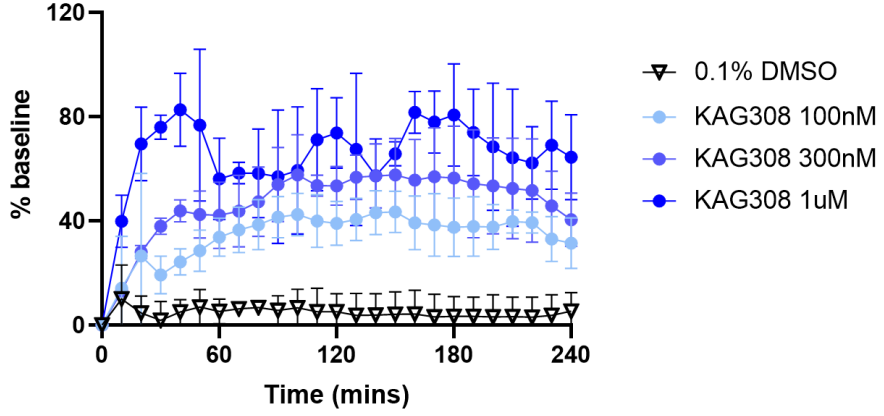
Favourable in vitro safety profile

EP4 agonists improve barrier function and colitis *in vivo*

Mouse organoid

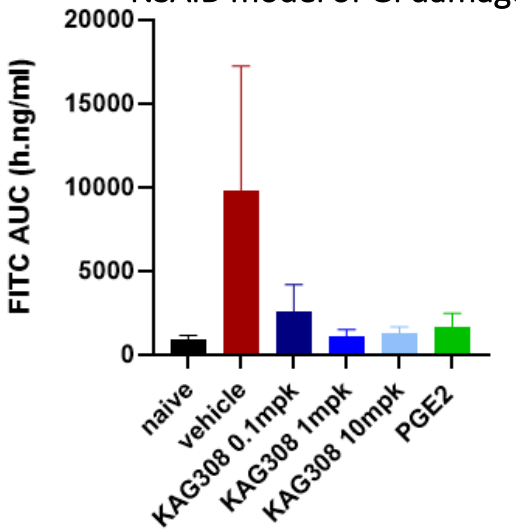


Mouse intestinal organoid

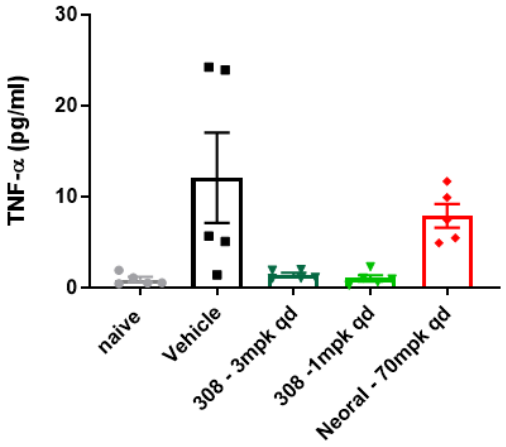


EP4 agonist shows protective effects on the intestinal barrier and shows potent anti-inflammatory effects

Improved GI permeability in NSAID model of GI damage



Anti-inflammatory effects in DSS colitis model



Summary

- Sosei Heptares has successfully developed 2 high quality lead assets with high potency, selectivity and excellent physchem properties.
  - Application of Sosei Heptares StaR platform to support Structure based drug design
  - EP4 represents an exciting GPCR target with opportunities in different therapeutic areas.
- EP4 Antagonist for Immune-oncology:
  - Successful partnership established with Cancer Research UK (2022).
  - HTL0039732 is a high affinity EP4 antagonist molecule anticipated to have class matching efficacy and low predicted oral daily dose
- EP4 Agonist for GI inflammatory disease (IBD):
  - Successful design of a novel, gut restricted EP4 agonist
  - Opportunity to promote epithelial repair and reduce immune mediated damage in the inflamed gut.
    - Differentiation from current SOC.

sosei HEPTARES

4

Q&A

Locations

SOSEI HEPTARES

PMO Hanzomon 11F

2-1 Kojimachi, Chiyoda-ku

Tokyo 102-0083

Japan

Steinmetz Building

Granta Park, Cambridge

CB21 6DG

United Kingdom

North West House

119 Marylebone Road

London NW1 5PU

United Kingdom