



FY2020 Financial Results

12-month period ended December 31, 2020

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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.

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Note: This material was created to explain the details of our company and is not intended to be used for investment decisions. In addition, the contents reflect the views of our company at the time of the creation of the material, and the accuracy of the information is not guaranteed. Investments should be made based on the independent views of investors



1

FY2020 Financial Results

Chris Cargill, CFO

Another year of successful execution

Summary Financial Highlights for the 12 months ended 31 December 2020

1

Revenue of ¥8,842m (\$83m) vs. ¥9,726m (\$89m) in prior corresponding period, driven by progress with existing collaborations, and effective execution of new partnerships and co-investments

2

Cash Earnings Profit of ¥2,904m (\$27m) vs. ¥2,846m (\$26m) in prior corresponding period, due to rigorous focus on collaborative partnerships, strategic execution and cost control

3

Operating Profit of ¥928m (\$9m) vs. ¥384m (\$4m) in prior corresponding period, successfully achieving our corporate goal to **target sustainable and/or profitable results** for the Full Year

4

~\$200m new growth capital raised, Japan's largest biotech financing during COVID-19, to support aggressive strategic growth plan

5

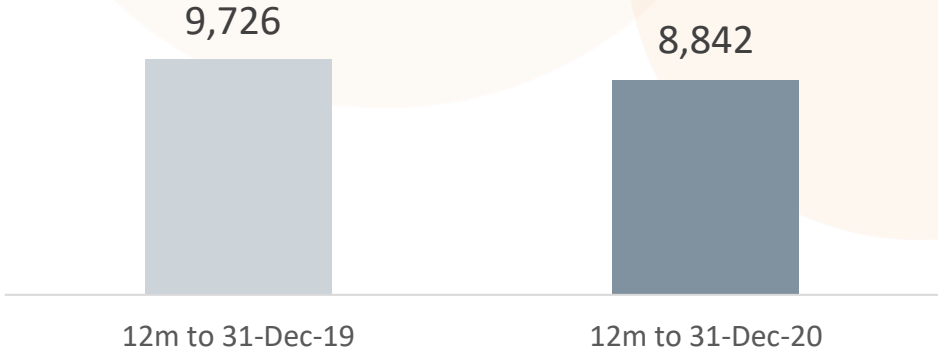
Net cash inflow of ¥24.6bn (\$246m), resulting in a **robust cash balance of ¥40bn** (\$387m) at year end

Our unique and balanced business model is driving a **sustainable financial profile**

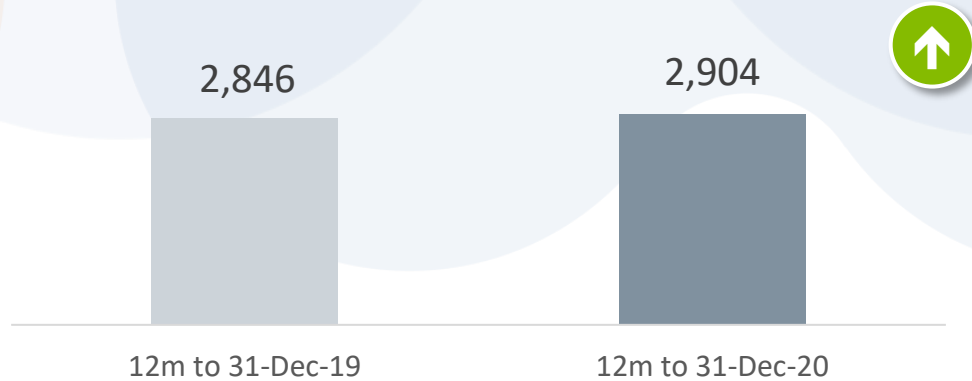
Note: USD:JPY FX rates used – 106.77 (FY2020) and 109.03 (FY2019)

Our focus on cost control and sustainable levels of R&D investment delivered a second consecutive year of profitable results

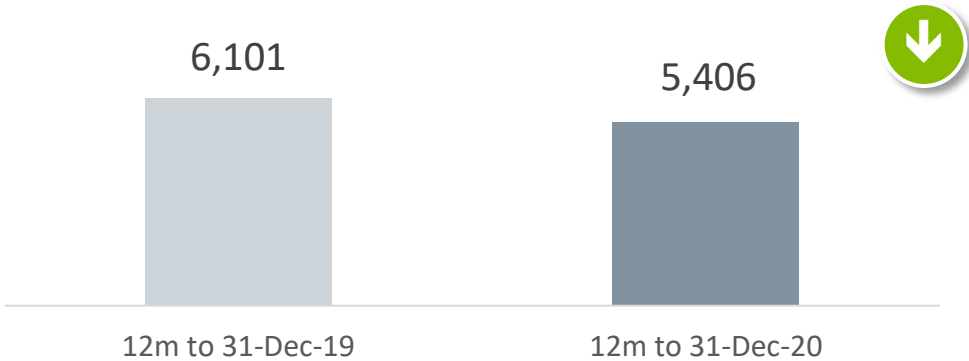
Revenue (JPY million)



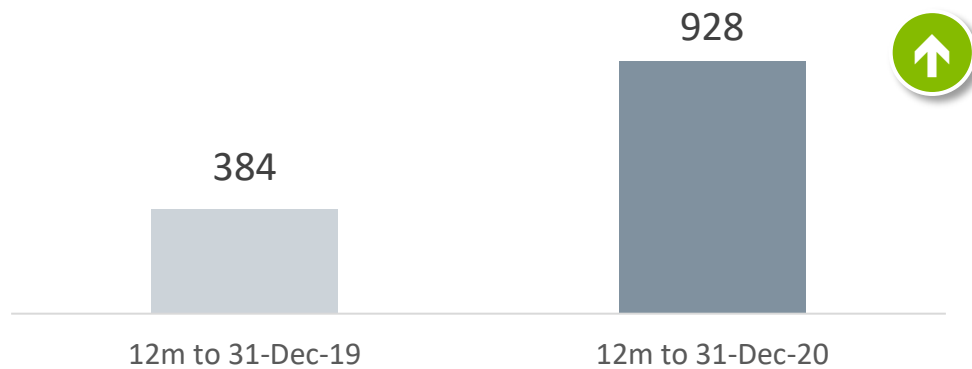
Cash Earnings Profit¹ (JPY million)



Cash Operating Expenses^{1,2} (JPY million)



Operating Profit (JPY million)



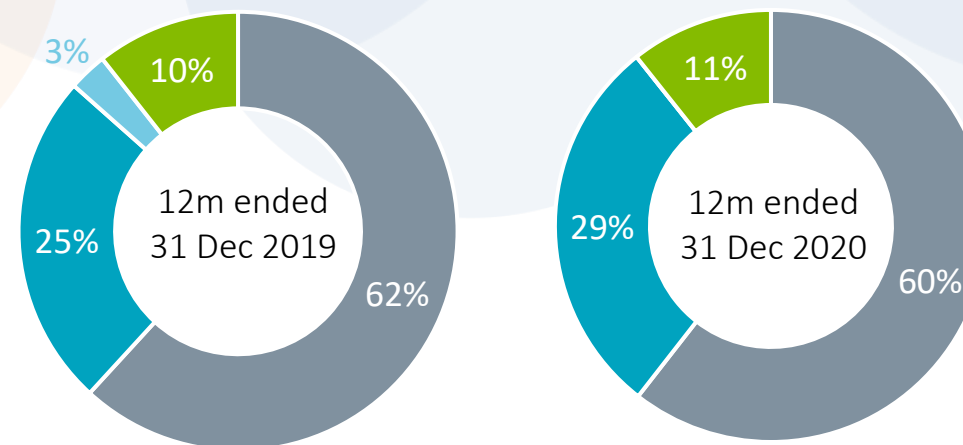
Note: ¹ Non-IFRS measure; ² Cash Operating Expenses = Cash R&D + Cash G&A

Our emphasis on collaborative drug discovery partnerships and co-investments drove a balanced split of revenues

	JPY million		USD million	
	12m ended 31 Dec 2019	12m ended 31 Dec 2020	12m ended 31 Dec 2019	12m ended 31 Dec 2020
Revenue	9,726	8,842	89.2	82.8
Cash Cost of Sales	(807)	(607)	(7.4)	(5.7)
Cash R&D	(3,937)	(3,411)	(36.1)	(31.9)
Cash G&A	(2,164)	(1,995)	(19.8)	(18.7)
Other Cash Income	28	75	0.3	0.7
Cash Earnings Profit	2,846	2,904	26.1	27.2
Non-Cash Costs	(2,462)	(1,976)	(22.6)	(18.5)
Operating Profit	384	928	3.5	8.7
Net Finance Costs	331	1,050	3.0	9.8
Equity Accounted Investments	(181)	(356)	(1.7)	(3.3)
Net Profit before income tax	534	1,622	4.9	15.2
Net Profit	1,432	1,479	13.1	13.8

Note: USD:JPY FX rates used – 106.77 (FY2020) and 109.03 (FY2019)

Revenue by Type

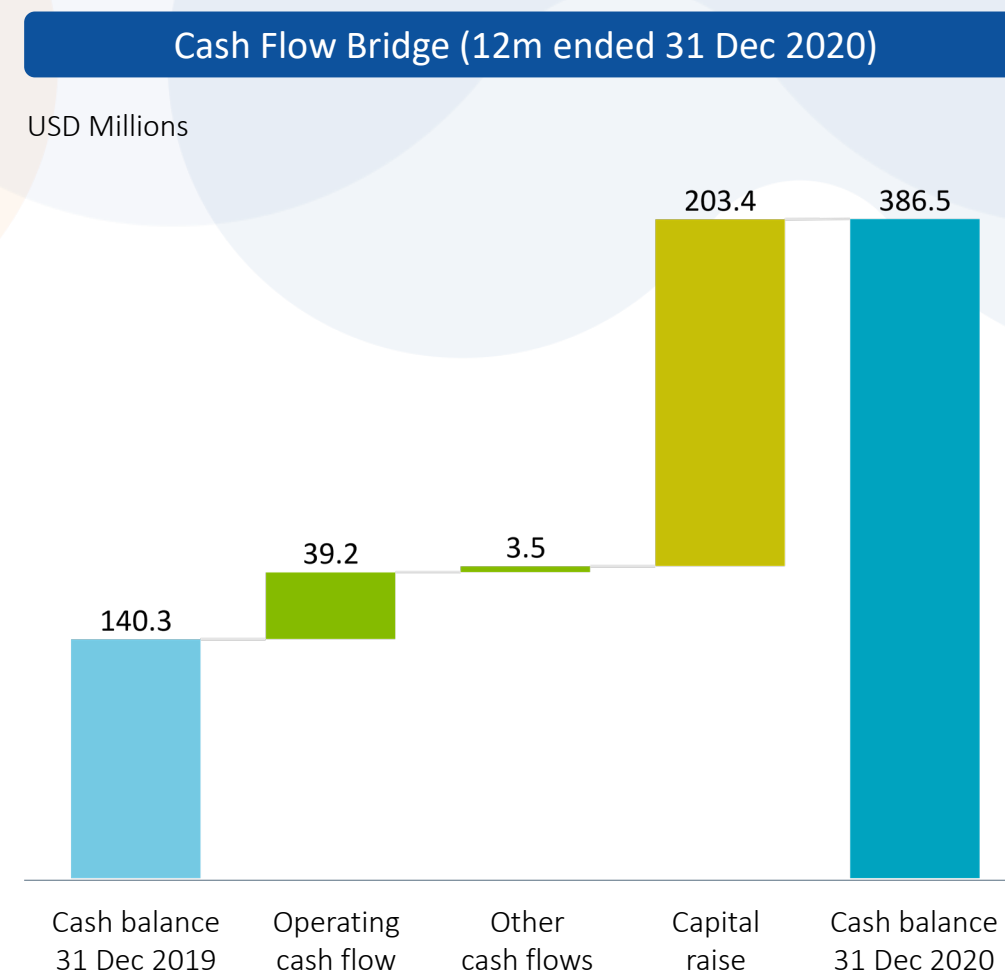


	12m ended 31 Dec 2019		12m ended 31 Dec 2020	
Milestone	¥6,013m	\$55.1m	¥5,353m	\$50.1m
Royalty	¥2,406m	\$22.1m	¥2,544m	\$23.8m
Product Sales	¥276m	\$2.5m	–	–
Other	¥1,031m	\$9.5m	¥945m	\$8.9m

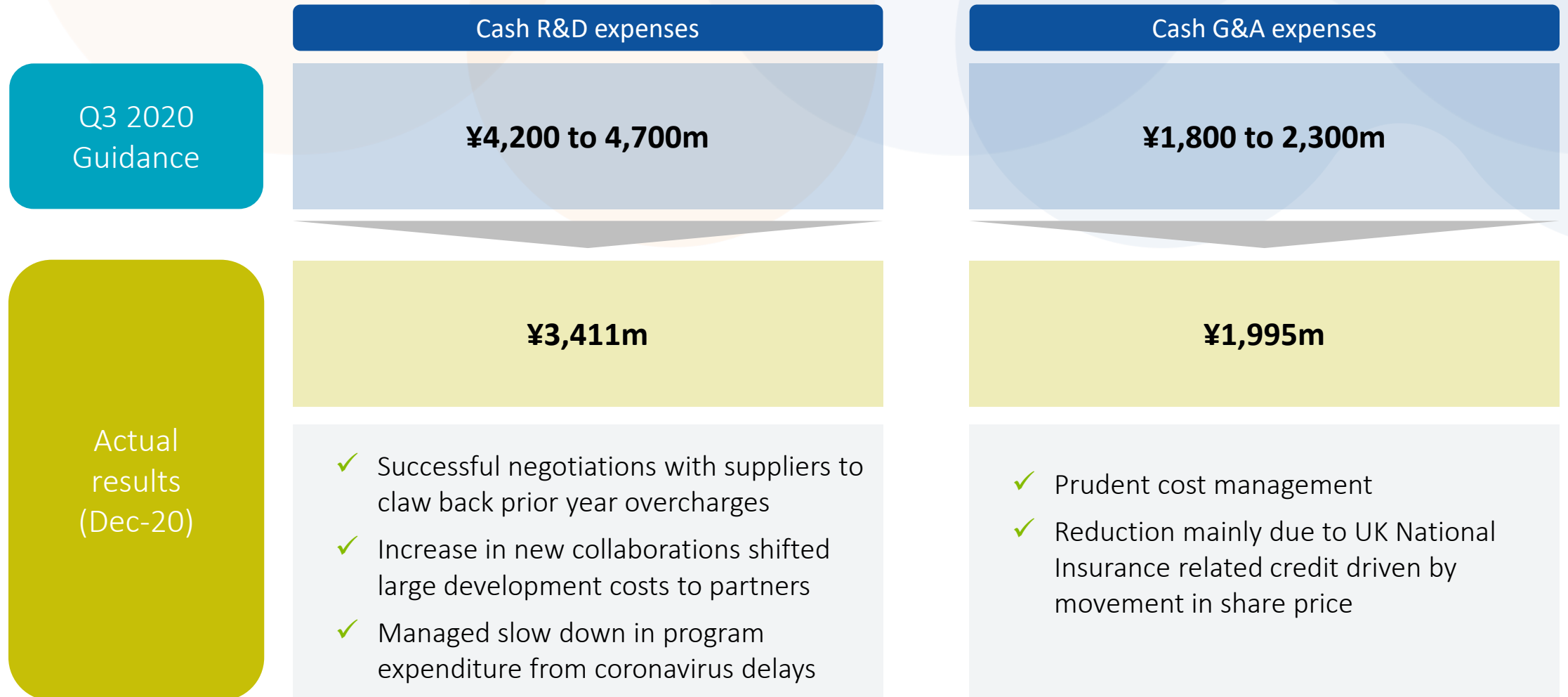
Positive operating cash flows and a highly successful capital raising have us well positioned to invest in enhancing corporate value

	JPY million		USD million	
	As of 31 Dec 2019	As of 31 Dec 2020	As of 31 Dec 2019	As of 31 Dec 2020
Goodwill & intangibles	27,364	25,936	249.8	250.5
Property, plant & equip.	4,120	3,824	37.6	36.9
Cash at hand	15,375	40,008	140.3	386.5
Equity Acc. investments	3,539	3,087	32.3	29.8
Other financial assets	2,053	1,593	18.7	15.4
Other assets	4,229	2,017	38.6	19.5
Total Assets	56,680	76,465	517.4	738.6
Corporate Bonds	–	14,789	–	142.9
Other liabilities	11,602	9,295	105.9	89.7
Total Liabilities	11,602	24,084	105.9	232.6
Net Assets	45,078	52,381	411.5	506.0

Note: USD:JPY FX rates used – 106.77 (FY2020) and 109.03 (FY2019)



Our commitment to sustainable and balanced risk and reward investing enabled us to keep costs under control



Modest increases in investment to fuel programs, add new major partners, and drive a step-up in our corporate valuation



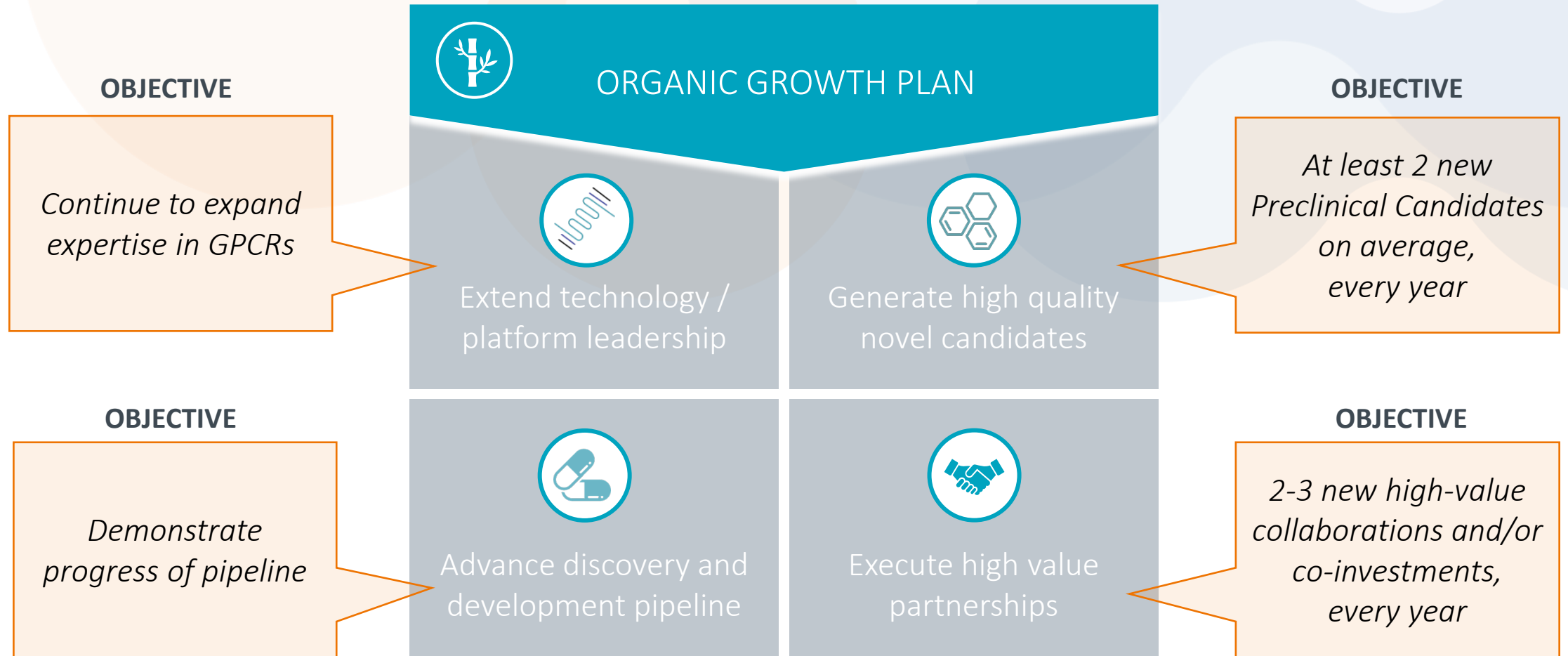


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FY2020 Operational Highlights

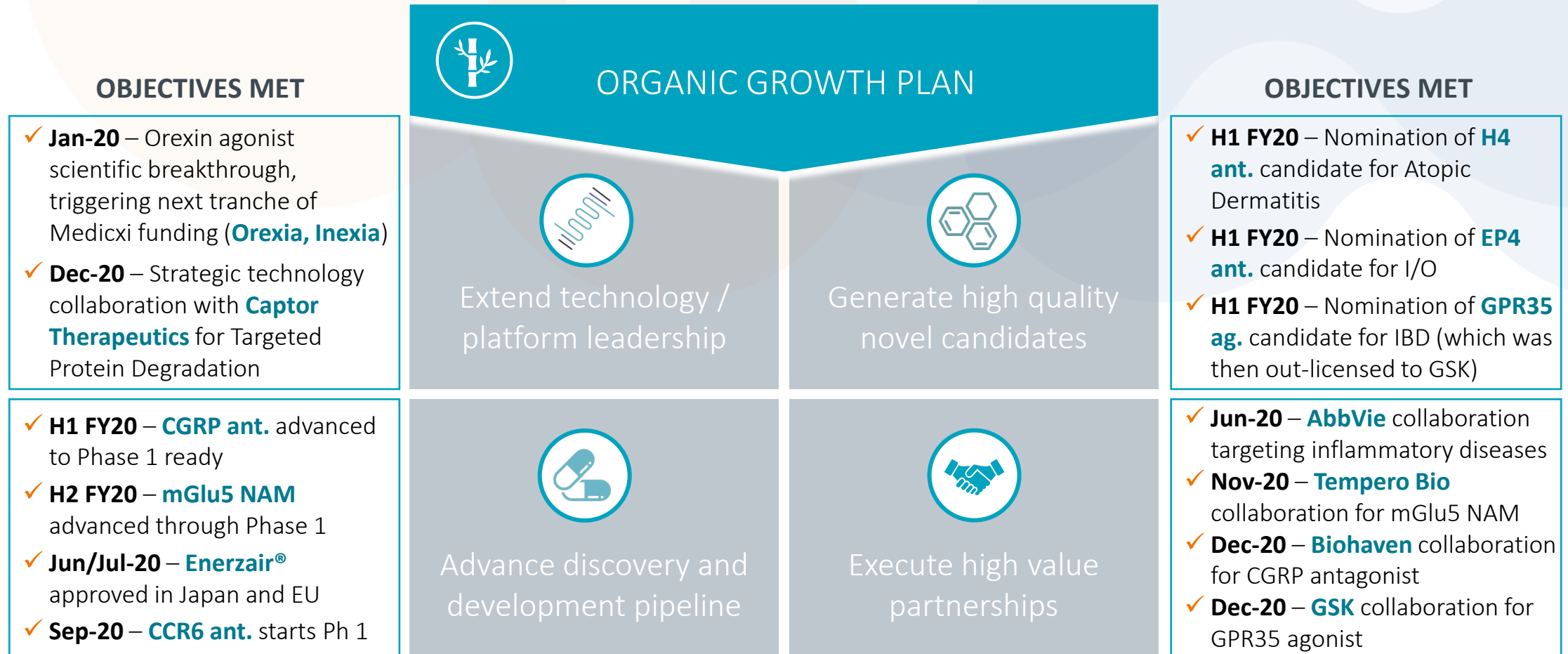
Chris Cargill, CFO

Organic growth plan driving our world-leading GPCR drug discovery



Building a broad pipeline to fuel the continued execution of high-value partnerships and co-investments

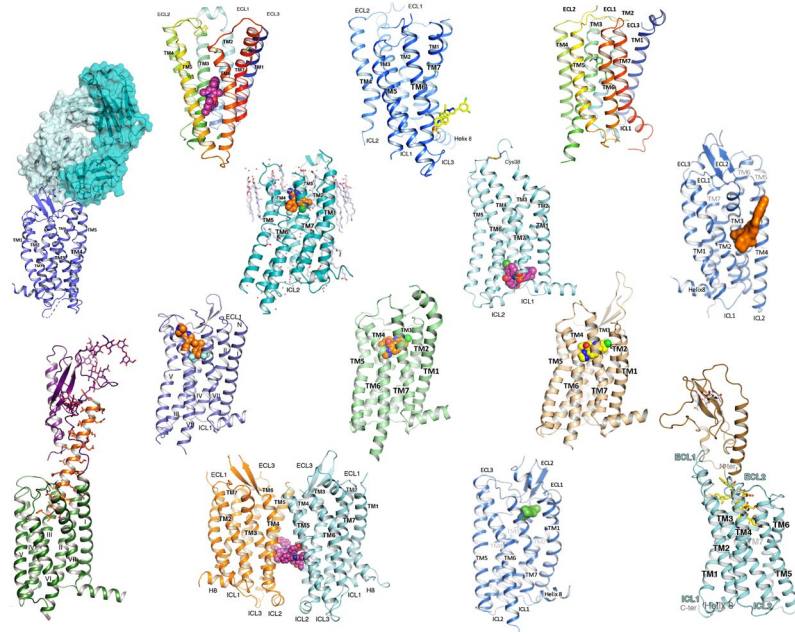
Organic growth plan driving our world-leading GPCR drug discovery



All organic growth objectives successfully achieved



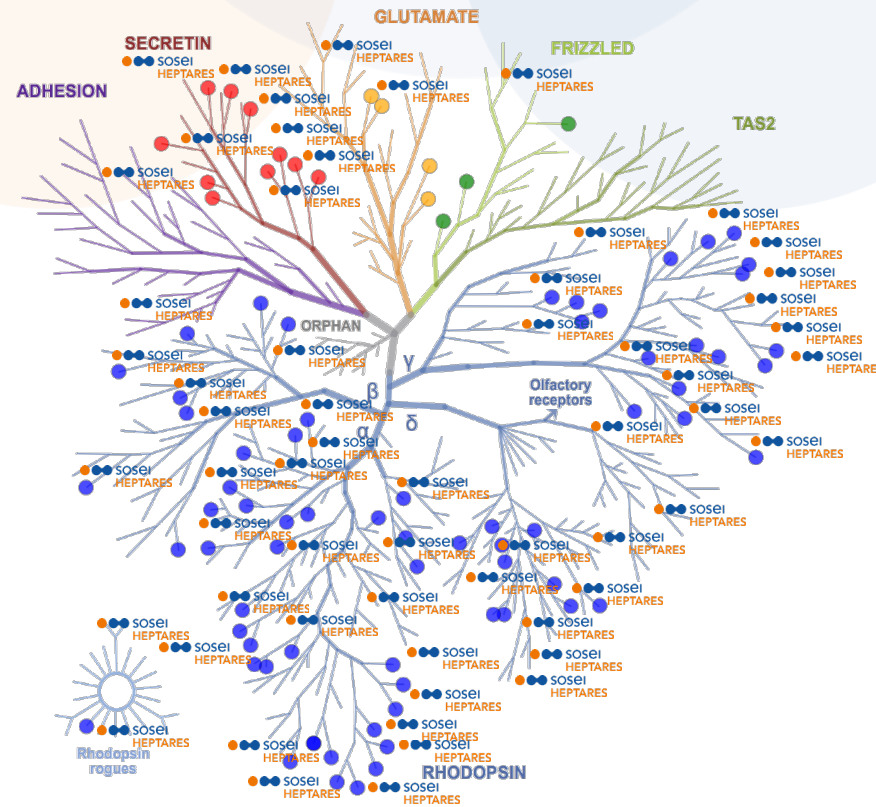
We continued to expand our expertise in GPCRs, having solved our 300th high-resolution structure from 30th GPCR drug target



Solved **300+** molecular structures from **30+** different receptors / **60+** StaRs

Highest resolution GPCR structure to date. Average resolution of **2.5Å** – higher than the average resolution reported globally.

Significant untapped GPCRome opportunity for years to come – **StaR[®] technology** is enabling us to unlock the potential of GPCRs



~400 GPCR targets

~75% Not yet drugged

Antagonist / Agonist bound

Small molecule / Antibody / Peptide discovery

Multiple indications

Source: "Unexplored opportunities in the druggable human genome", Nature Reviews, 2016; "Trends in GPCR in Drug Discovery – new agents, targets and indications", Nature Reviews, 2017; Management analyses, Protein Data Bank

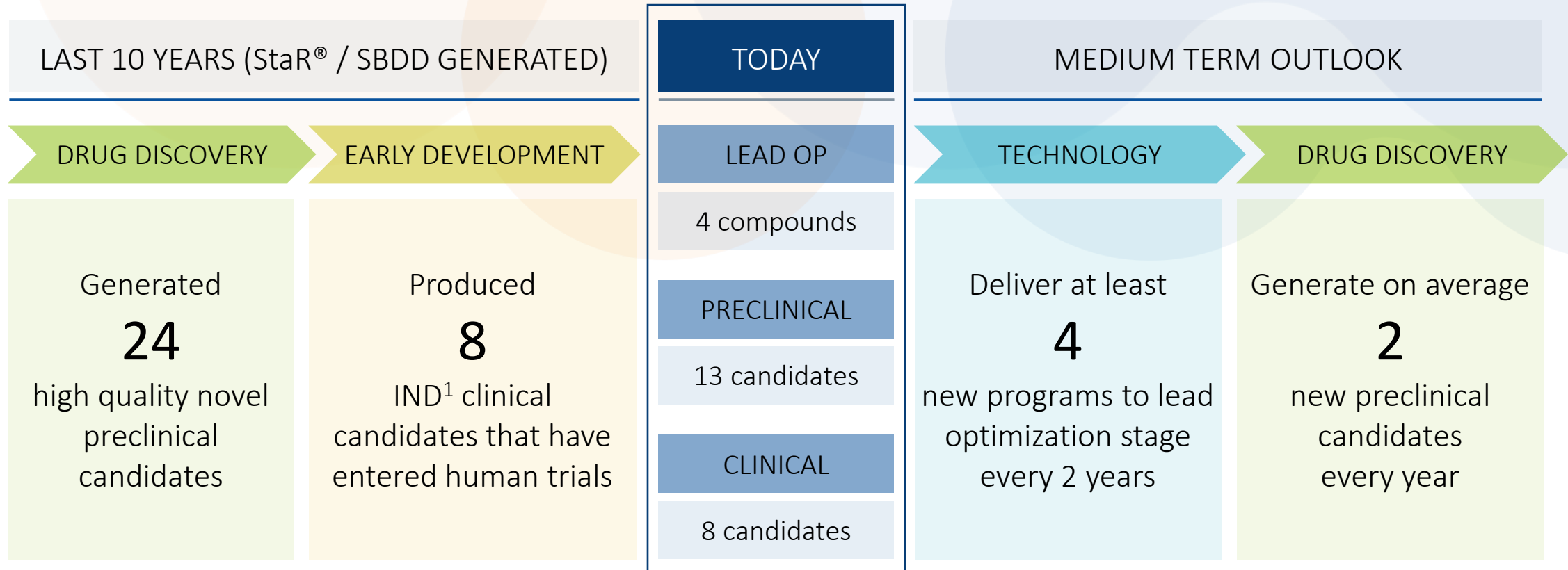
● Receptors for which a structure has been released in Protein Data Bank (public domain)

● sosei HEPTARES Receptors for which Sosei Heptares has developed a StaR[®]





Our StaR[®] technology and SBDD platform enables productive drug discovery and generates multiple high quality candidates



One of the most productive GPCR drug discovery teams in the world over the past 10 years

Note: ¹IND = Investigational New Drug



We leveraged our SBDD platform to support COVID-19 research in 2020, discovering a potent series of broad spectrum anti-virals



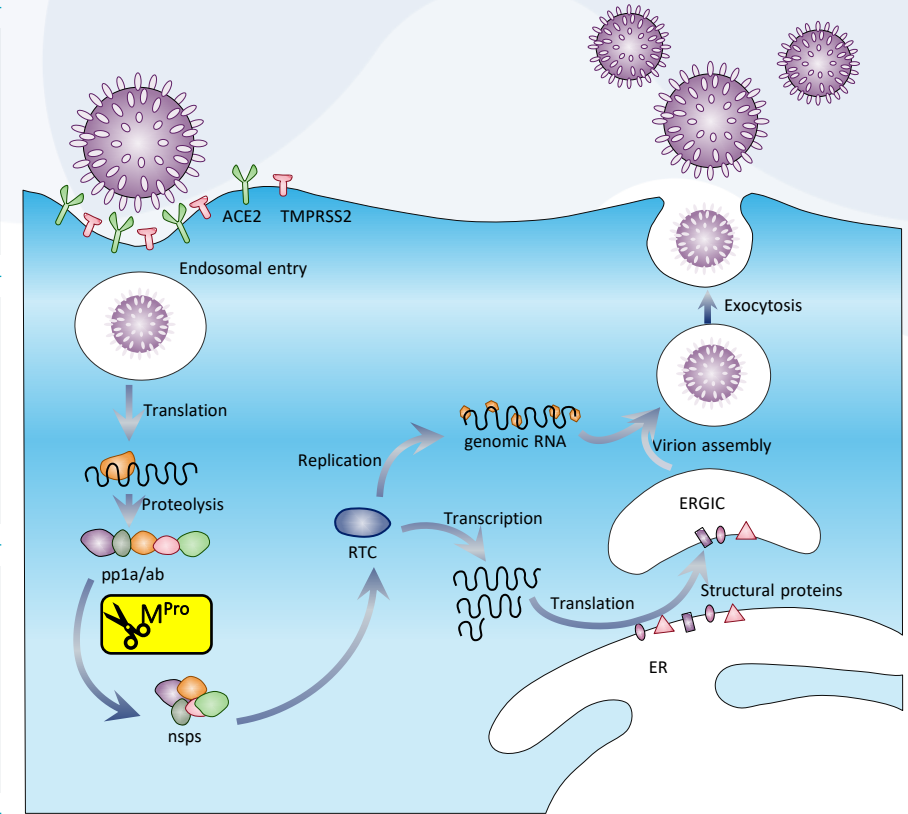
Program focused on inhibitors of **SARS-CoV-2 main protease**, a highly conserved protein essential for viral replication



Structure-based design approach has identified potent compounds for further development as **oral treatments** for SARS-CoV-2 infection and future coronavirus variants



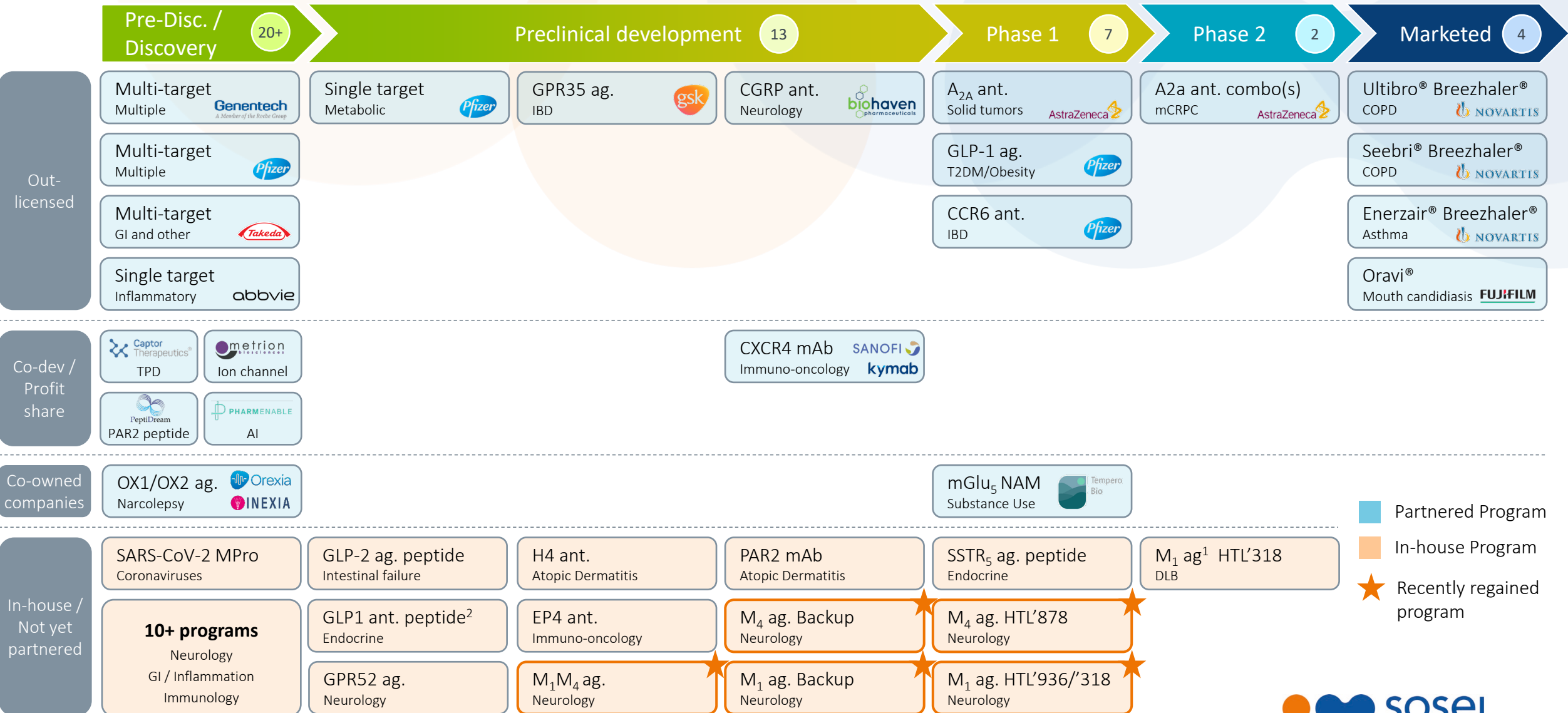
Program has advanced rapidly under an international collaboration of companies led by Sosei Heptares as part of its **commitment to socially responsible investing**



Now seeking partners with expertise in antiviral development for rapid progression of identified molecules for this important global fight against SARS-COV-2 and future coronavirus variants



We added multiple new partnered and in-house programs to our deep pipeline, which will drive more collaborations and value creation










- Partnered Program
- In-house Program
- Recently regained program

Note: Seebri®, Ultibro®, Energair® and Breezhaler® are registered trademarks of Novartis AG. ¹Phase 2 trial of HTL0018318 for DLB in Japan has been withdrawn. The Group may resubmit a new clinical trial notification for HTL0018318 (or another novel M₁ agonist) to the Japanese Pharmaceuticals and Medical Devices Agency (PMDA) in the future. ²The option to license GLP1 antagonist peptide was not exercised before 31 December 2020 and therefore the program is currently wholly in-house.



We continued to make excellent progress in collaborative drug discovery, adding three new pharma partnerships in 2020

Partner	Active Partnered Program	Therapeutic Area	UF / Near Term Payments	Potential deal value ¹
	2020 Collaboration and Licensing Agreement for GPR35 agonist	Gastrointestinal, immunology	\$44m	\$480m+
	2020 Collaboration and Licensing Agreement for CGRP antagonist	Neurology	\$10m	\$380m+
	2020 Discovery Collaboration and Option to License ²	Inflammatory and Autoimmune	\$32m	\$400m+
	2019 Multi-target Collaboration	Multiple; Initial focus on Gastrointestinal	\$26m	\$1.2bn+
 <small>A Member of the Roche Group</small>	2019 Multi-target Collaboration	Multiple	\$26m	\$1.0bn+
	2015 Multi-target Collaboration	Multiple	Nil	\$1.8bn+
	2015 Collaboration and Licensing Agreement for A _{2a} antagonist	Immuno-oncology	\$10m	\$500m+
TOTAL			\$148m	\$5.9bn+

¹ Potential option fees, development, regulatory and commercial milestone payments, plus royalties on global commercial sales;

² AbbVie has the option to expand the collaboration by an additional three targets



We created Tempero Bio, an exciting co-owned investment with the global pharma industry leaders at Aditum Bio

Tempero Bio to advance the clinical development of **mGlu5 NAM** program in neurological diseases

Tempero Bio – a new company created to develop the mGlu5 NAM program, including candidate HTL14242 (TMP-301), to develop therapies targeting **substance use disorders and anxiety**.

Aim of co-investment to combine **high quality mGlu5 NAM pharmacotherapy with digital devices** to support patient treatment, improve adherence and ultimately create better patient outcomes.

Tempero Bio plans to bring TMP-301 into a **Phase 2** clinical trial within 12 months, utilizing **TrialSpark** – a tech-enabled platform – as the innovative clinical research engine.

Sosei Heptares received \$5 million upfront payment and **strategic equity stake** in Tempero Bio, and is eligible to receive development and commercial milestone payments plus tiered royalties.



Nov 2020



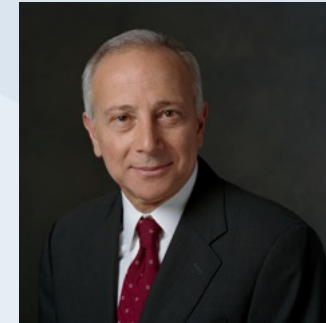
Co-founded by industry veterans:



Joe Jimenez



Former CEO



Mark Fishman



Founding President



Paul Sekhri



Former CEO

“We created Aditum Bio to select and develop clinical assets using a novel approach combining data, software and technology to speed development.” – Joe Jimenez

Strategic growth plan driving corporate value expansion



Adding new revenues, and accessing new technologies, to expand our future-proof our capabilities

 Collaborations in FY20
  Collaborations in FY21 (See Appendix)



We have taken our first step into the exciting area of Targeted Protein Degradation via a strategic collaboration with Captor

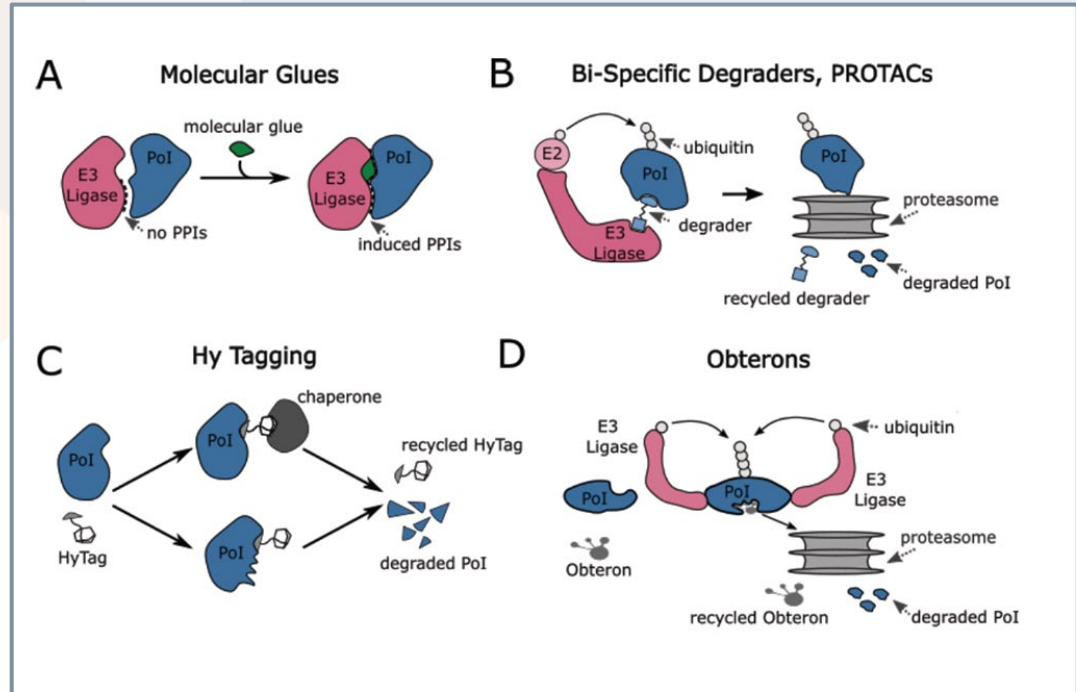
Strategic technology collaboration with **Captor Therapeutics** focused on **targeted GPCR degradation**

Explores the potential of our unique combination of technologies to **develop a novel GPCR degraders platform**, opening up so far intractable drug targets for us to address.

Targeted protein degradation – **novel approach to drug discovery** where the body’s natural process for degrading proteins is diverted using small molecule drugs to eliminate disease-causing proteins.

Expected to have **multiple advantages over classical drugs** such as inhibitors and antibodies for the development of novel therapeutics against a broad range of diseases.

Initial focus to identify small molecules targeting a GPCR with a key role in a strongly validated signalling pathway implicated in **gastrointestinal disorders**.



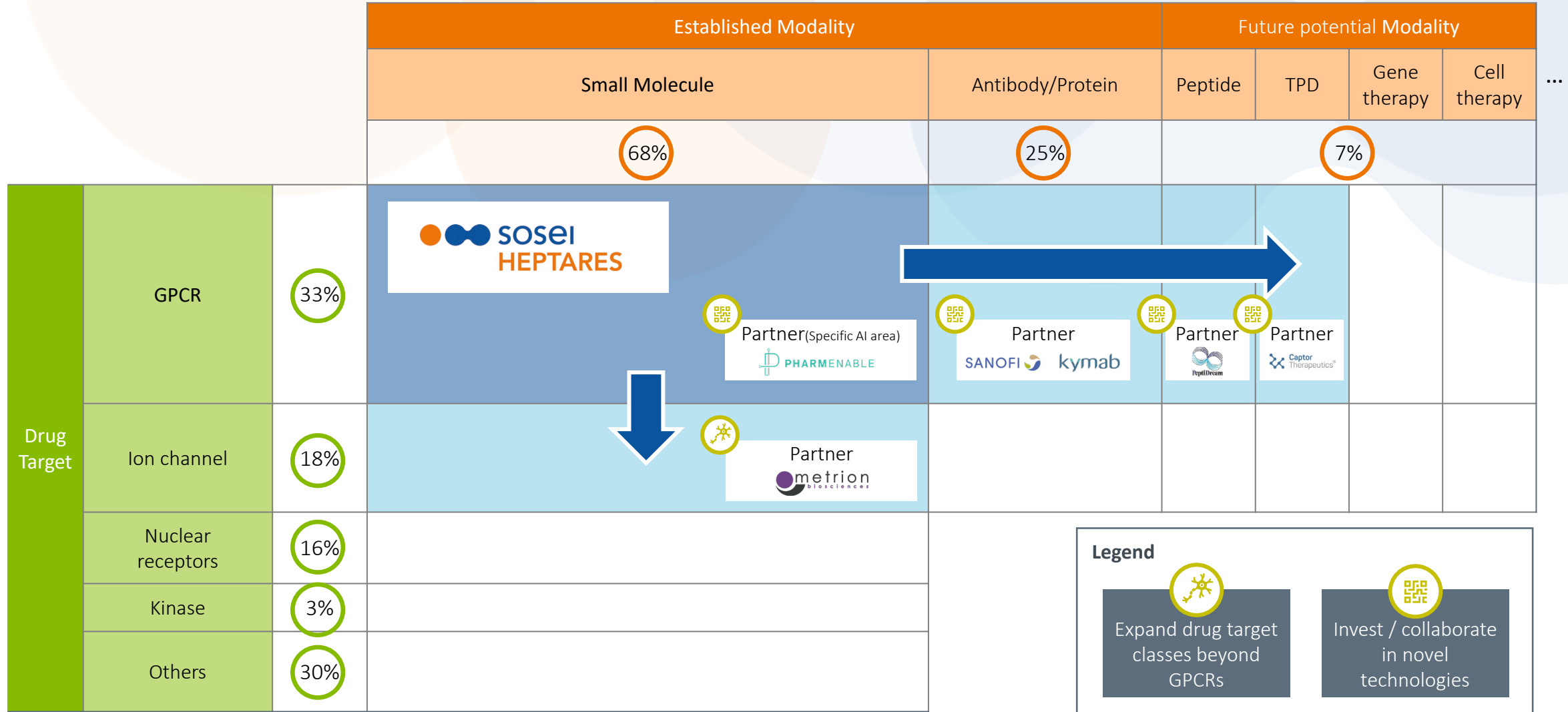
- ✓ The Captor platform includes Molecular Glues, Bi-Specific Degraders and Obterons
- ✓ Each approach has different characteristics and may be better suited to different targets or diseases



Dec 2020



We are covering ~50% of the drug discovery landscape through the tactical expansion of our strategic collaborations



○ : Proportion of small-molecule drugs that target major families (Nature Reviews Drug Discovery volume 16, pages19–34(2017))

○ : Proportion of new drugs approved by FDA (2015-2019) by modality



3

Key themes for the future

- Addressing challenges in drug discovery
- Being an ESG leader

Shinichi Tamura, Chairman and CEO

Three big challenges in drug discovery and development

KEY OPPORTUNITY



*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)



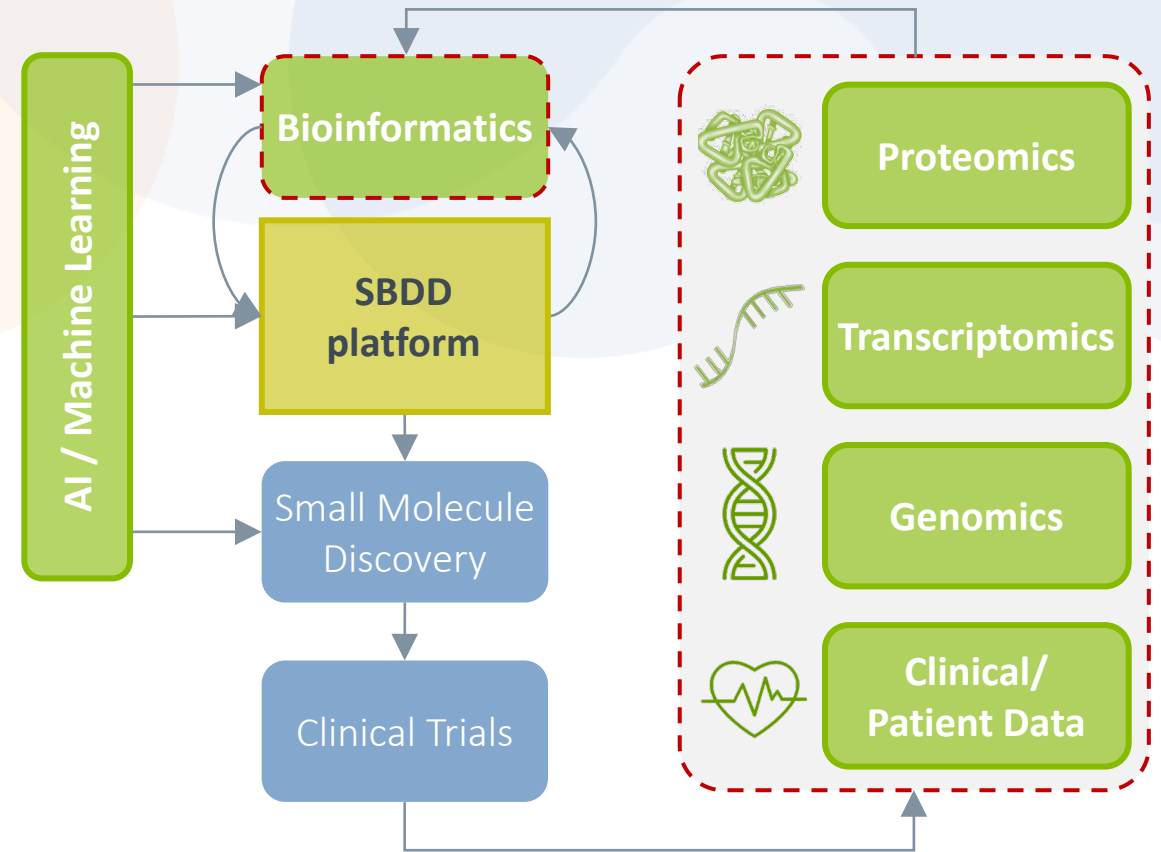
*Conducting
the right patient studies*

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

Our greatest opportunity is to leverage technology to choose the right drug targets that will become the transformational therapies of the future

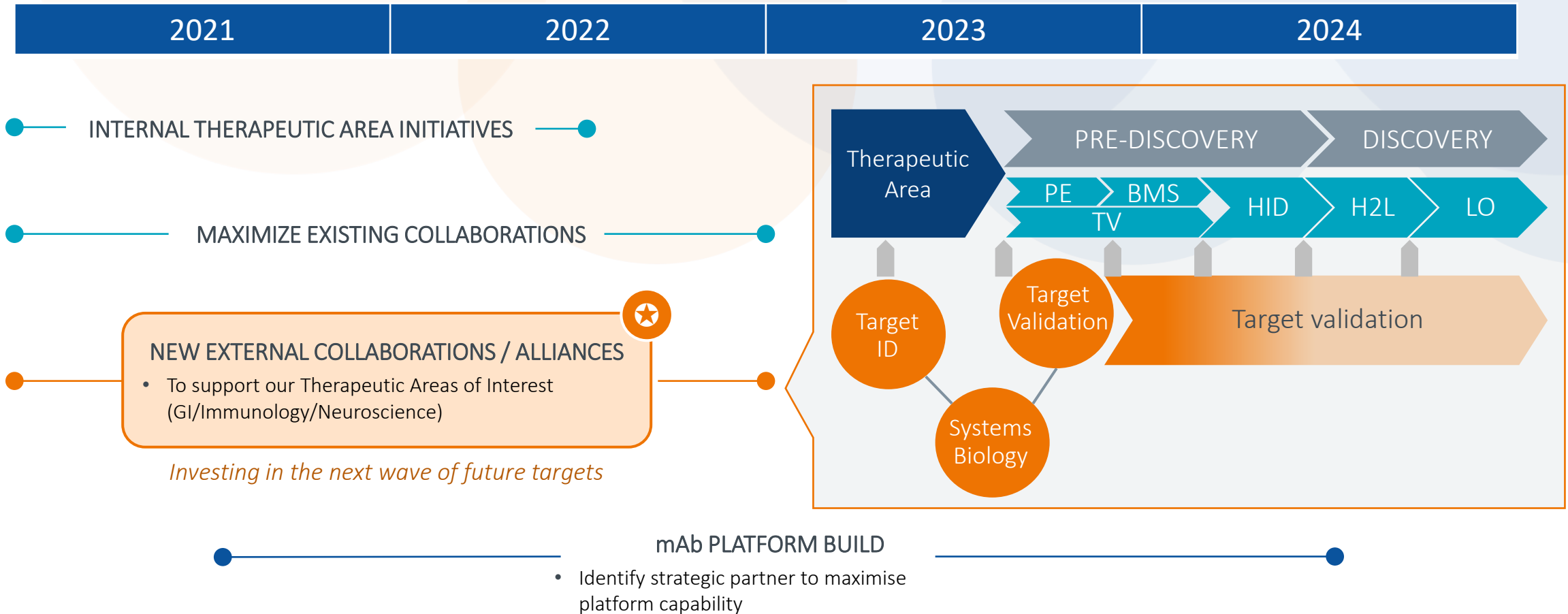
We have created the new target ID and validation (TIV) framework to accelerate our quest to **choose the right targets**

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

New TIV Framework - mid-term plan to pursue investments and external collaborations to hunt novel first-in-class drug targets



Commencing 2021 we will aggressively expand our external technology collaborations and alliances

Note: PE = Protein Engineering; BMS = Biomolecular Structure; TV = Target Validation; HID = Hit Identification; H2L = Hit-to-Lead; LO = Lead Optimization

Our commitment to ensure a sustainable future for all

Sustainable Development Goals adopted by the United Nations (Sep-15)



Sosei Heptares is undertaking initiatives focused on 10 of the 17 Sustainable Development Goals



E SUSTAINABILITY COMMITTEE

- Promoting efficient energy use and renewable energy sources
- Reducing waste and water usage
- Promoting efficiency in drug discovery

S CHARITY COMMITTEE

- Hosting events to raise monetary donations for multiple dementia-related charities
- Equipment donations to local educational institutions

G GOVERNANCE STRUCTURE

- Board of Directors –6 members (incl. 5 external independent)
- Investment Committee and Scientific Advisory Board provide recommendations to the Board

Source: United Nations
 LINK: https://soseiheptares.com/uploads/Sustainability/Sustainability_20201214_JP.pdf



4

FY2021 Strategic Outlook

Shinichi Tamura, Chairman and CEO

Priority objectives for FY2021



Being an ESG leader

- **Promote sustainable ESG practices and policies across global business**
- Establish collaborations with industry partners to further develop candidates as oral treatments for human coronaviruses



Progress the organic growth plan

- Extend technology / platform leadership
- **Generate high quality Preclinical-stage candidates**
- Advance discovery and development pipeline
- **Execute 2-3 new high value collaborations and/or co-investments**



Execute on the strategic growth plan

- **Seek out revenue-generating opportunities**
- **Invest / collaborate in novel technologies and expand drug target classes beyond GPCRs**
- In-license late-stage assets for Japan market

Thank you for continued investment and interest!

✓
1

Maintain **technology and platform leadership** in our chosen field

✓
2

Enter new high value drug discovery and development **partnerships with pharma /biotech**

✓
3

Achieve **important milestones** on existing partnered programs

✓
4

Seed multiple **new in-house drug candidates** in strategic areas for future high value partnering

✓
5

Advance selected in-house programs in early-stage clinical studies for higher value partnering

✓
6

Create new **asset-centric spin-out companies** backed by venture capital and retain equity holding

FY2020 Achievements

Orexin agonist scientific breakthrough



Tech collaboration for Targeted Protein Degradation (TPD)



Inflammatory and Autoimmune Collab
abbvie

CGRP ant. Out-licensing and Collaboration



GPR35 ag. Out-licensing and Collaboration



Launch of Enerzair® Breezhaler® for Asthma in EU and Japan



Phase 1 start of CCR6 ant. for inflammatory bowel disease



Nomination of H4 ant. candidate for Atopic Dermatitis



Nomination of EP4 ant. candidate for Immunoncology



Nomination of GPR35 ant. candidate and out-licensed



CGRP ant. advanced to Phase 1 ready and out-licensed to Biohaven



mGlu5 NAM advanced through Phase 1 and out-licensed to Tempero Bio



Created Tempero Bio with Aditum Bio to advance mGlu5 NAM program targeting substance use disorders and anxiety



Note: Enerzair® and Breezhaler® are registered trademarks of Novartis AG



5A

Appendix

Significant events post FY2020 close

Bolstered drug discovery capabilities with technology collaborations



Collaborate in novel technologies

Collaboration with **PharmEnable** to leverage its proprietary **artificial intelligence-enabled** and medicinal chemistry technologies to identify novel, highly specific drug leads for future development.

PharmEnable's approach **identifies 3D drug candidate hits** with improved specificity compared with traditional screening methods, enabling the company to tackle challenging biological targets.

Initial focus to apply these technologies on a **peptidergic GPCR target associated with neurological diseases** that has proved particularly difficult to drug.

Sosei Heptares and PharmEnable will **jointly conduct** and share the costs of the discovery and development program and will **co-own** any resulting products.



Jan 2021



Expand drug target classes beyond GPCRs

Collaboration with **Metrion Biosciences** to explore the potential of Sosei Heptares' SBDD technologies to address **disease-associated ion channels** in a similar way it has succeeded with GPCRs.

Ion channels – regulate the flow of ions across the cell membrane and represent a **large and established but under-exploited class of drug targets** beyond GPCRs.

Initial focus to identify novel, highly specific drug leads for further development against a single ion channel that is well-validated in **neurological diseases**.

Sosei Heptares will have **exclusive, full global rights** to all molecules identified and directed to the targets for development by Sosei Heptares.



Feb 2021



We regained a larger and strengthened selective muscarinic agonist portfolio following over \$55m of investment from Allergan

Sosei Heptares receives all programs under development, together with the associated IP and preclinical and clinical data generated from the partnership with Allergan

Includes a pipeline of next-generation selective muscarinic agonists with newly developed chemistry

StaR[®] and SBDD precision-design platform has delivered a patent estate of chemically diverse M₄, M₁ and M₁/M₄ muscarinic agonist back-ups in preclinical development

Program	Compound	Stage
M ₄ agonist	HTL'878	Ph 1
	Undisclosed	Preclinical
M ₁ agonist	HTL'318	Ph 1
	HTL'936	Ph 1
	Undisclosed	Candidate Selection
	Undisclosed	Discovery
	Undisclosed	Discovery
M ₁ / M ₄ dual agonist	Undisclosed	Candidate Selection



We have completed our internal review of the Muscarinic programs and will now **increase our investment of the M₄ agonist program** while maintaining investment in the other portfolio programs

Potential to deliver transformative new treatments for patients

Muscarinic M₄ and M₁ receptors are validated targets for psychosis and cognition

Muscarinic M₄ and M₁ receptors represent validated targets for the treatment of psychosis and cognition, respectively

Selective orthosteric agonists have been very challenging despite over 25 years of effort by major global pharma

Xanomeline, the M₄/M₁ preferring agonist, achieved human Proof of Concept in double-blind, placebo-controlled trials in SZ and AD patients

Selective muscarinic receptor agonist xanomeline as a novel treatment approach for schizophrenia

Anantha Shekhar¹, William Z Potter, Jeffrey Lightfoot, John Lienemann, Sanjay Dubé, Craig Mallinckrodt, Frank P Bymaster, David L McKinzie, Christian C Felder



Effects of xanomeline, a selective muscarinic receptor agonist, on cognitive function and behavioral symptoms in Alzheimer disease

N C Bodick¹, W W Offen, A I Levey, N R Cutler, S G Gauthier, A Satlin, H E Shannon, G D Tollefson, K Rasmussen, F P Bymaster, D J Hurley, W Z Potter, S M Paul

Muscarinic M₄ and/or M₁ receptor agonists **with selectivity** over peripheral muscarinic M₂ and M₃ receptor subtypes have the **potential to be transformative treatments**

Source: World Health Organization

Potential to deliver transformative new treatments for patients

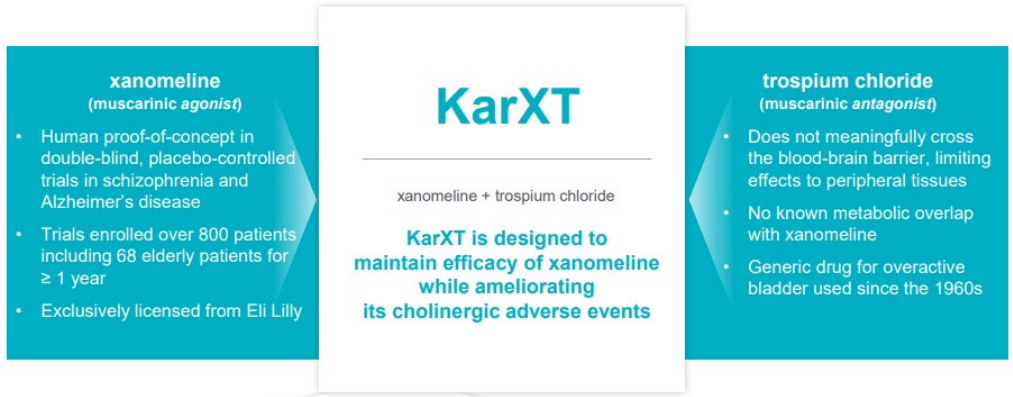
Karuna Therapeutics and Cerevel Therapeutics are advancing supportive muscarinic stories



KarXT (M₁/M₄ agonist, M₂/M₃ antagonist)

CVL-231 (M₄ PAM)

KarXT: Proprietary lead product candidate



Sources: Bodick et al. 1997; Shekhar et al. 2008



Cerevel's Selective M₄ Modulation: A Compelling and Differentiated Approach to Drive Antipsychosis

M₄ Selectively Impacts Brain Functions

Other Muscarinic Receptors	Potential Effect	M ₄ Muscarinic Receptor
-	Antipsychosis	✓✓
✓✓	Cognition	✓
✓✓	GI Side Effects	-
✓	Cardiovascular	✓

Receptor Subtype Selectivity Offers Potential Improvement

Xanomeline (M₁/M₄) data from Schizophrenia and Alzheimer's patients show targeting muscarinic receptor impacts brain function
But development limited by GI and CV side effects

Karuna's KarXT creatively addresses this by adding trospium to Xanomeline to offset side effects
Non-selective approach

M₄ Knock-out mouse data suggests M₄ receptors drive the antipsychotic activity of Xanomeline
M₁ receptors believed to contribute to worrisome side effects

CVL-231:
Highly Selective Once-daily (QD) M₄ PAM

>800x more selective for M₄ over M₁, 3 and 5

>390x more selective than for M₂



Source: 1. Shekhar et al. Am J Psychiatry, Vol 165, Aug 2008. N=20. 2 active and 3 placebo-arm patients discontinued the study, none due to adverse events.
2. Bodick et al. Arch Neurol, Vol 54, Apr 1997. N = 343. 52% of patients in high-dose arm discontinued treatment due to adverse events.

Karuna Therapeutics' KarXT¹ and Cerevel Therapeutics CVL-231² have reawakened investors and the pharma industry to the potential of muscarinic programs for the treatment of psychosis and cognition

1. KarXT is combination of xanomeline (muscarinic M₁/M₄ preferring agonist) and trospium chloride (muscarinic M₂/M₃ antagonist). Source: Karuna Therapeutics Company Presentation (December 2020) [LINK](#)
2. CVL-231 is a selective muscarinic M₄ positive allosteric modulator (PAM). Source: Cerevel Therapeutics Company Presentation (November 2020) [LINK](#)

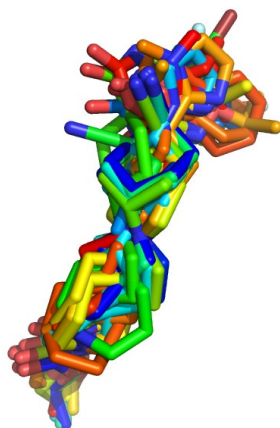
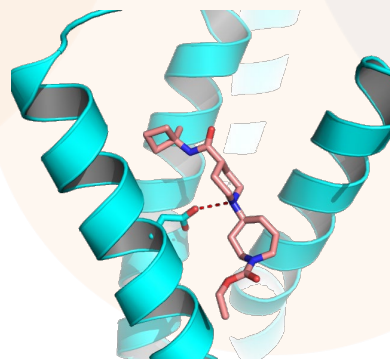


Potential to deliver transformative treatments for patients

M₄ agonist program a potential next-generation, first-in-class treatment for SZ

Using our proprietary StaR[®] technology, we have developed crystallography systems for Muscarinic receptors stabilized in agonist forms

Details obtained from structures of a compound series enable tuning of interactions and affinities across receptor sub-types



HTL'878

Highly selective M₄ receptor agonist for the treatment of psychosis in schizophrenia and dementias

- Potent orthosteric agonist of the M₄ receptor
- Highly selective vs other muscarinic receptor subtypes
- Highly selective vs other GPCRs and other drug targets
- Excellent CNS penetration and good druglike properties to ensure access to the target (target engagement)

Our StaR[®] / SBDD precision designed M₄ agonist program is **highly selective for the muscarinic M₄ receptor subtype**, offering a differentiated approach versus the competitors in development

Potential to deliver transformative treatments for patients

SZ remains a huge unmet medical need

Large market with blockbuster sales profiles...

~20M

SZ patients worldwide

Blockbusters sales profiles despite limited efficacy and severe side effects

\$10BN+ (2020)



\$13BN+ (2026)



...Despite no innovation in 70 years

Current treatments use the same MOA from the 1950s

1st Gen

D2 modulating

Atypicals

Dual D2/5HT modulating

2nd Gen Atypicals

Dual D2/5HT modulating



Huge opportunity for HTL'878

- ✓ Selective M₄ agonist
- ✓ Potential First in Class therapy with a novel MOA
- ✓ Improved tolerability
- ✓ Significant need for new treatment options in SZ

The severe side effect profile of Atypicals continues to drive high relapse rates, disease progression and discontinuation of treatment – **there is a significant need for new treatment options**

Source: World Health Organization; EvaluatePharma



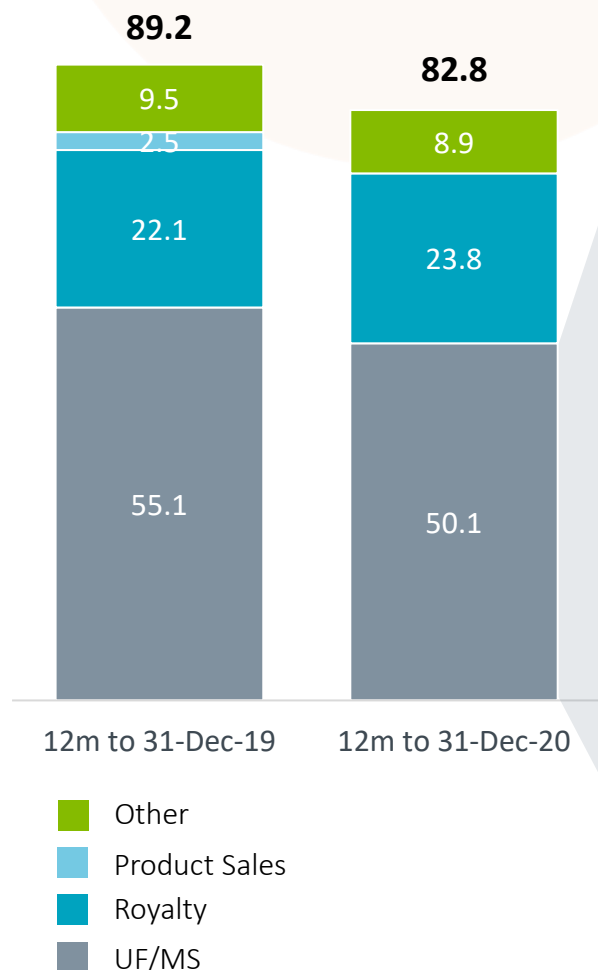
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Appendix

*Revenue and Pipeline
progression*

Revenue breakdown by type (IFRS)

USD (M)



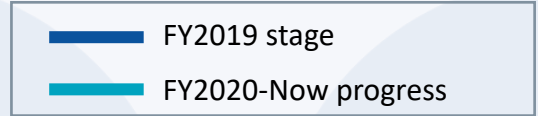
Upfront (UF)/Milestone (MS) revenue recognized in the full Financial Year¹

Date	FY19 UF/MS Event	Revenue (USDm)
Jan-19	AZD4635 Phase 2 start	15.0
Feb-19	Inexia collab upfront	0.3
Feb-19	Fair value of shares in Orexia and Inexia	2.3
Feb-19	Daiichi Sankyo structure solved	0.5
Feb-19	Fujifilm Oravi payments	1.8
May-19	Pfizer candidate nomination	3.0
May-19	Novartis Enerzair® Breezhaler® EMA filing	2.5
May-19	Pfizer candidate nomination	3.0
Jul-19	Genentech collab upfront	7.6
Aug-19	Takeda collab upfront	10.0
Sep-19	Genentech target nomination	0.8
Dec-19	Pfizer Phase 1 start	5.0
Dec-19	Pfizer candidate nomination	3.0
	Selected revenue	0.8

Date	FY20 UF/MS Event	Revenue (USDm)
Feb-20	Daiichi Sankyo lead identified	1.5
Jun-20	AbbVie collab upfront	2.5
Jun-20	Novartis Enerzair® Breezhaler® Japan approval	1.3
Jul-20	Novartis Enerzair® Breezhaler® EU approval	5.0
Aug-20	Takeda structure solved	0.3
Sep-20	Pfizer Phase 1 start	5.0
Nov-20	Tempero Bio collab upfront	5.0
Nov-20	Fair value of shares in Tempero Bio	2.0
Nov-20	Biohaven collab upfront	5.0
Nov-20	Biohaven share consideration	4.7
Dec-20	AbbVie StaR® structure solved	0.7
Dec-20	Takeda StaR® structure solved	0.3
Dec-20	GSK collab upfront	12.5
	Selected revenue	4.3

Note: ¹ Values relate to revenue recognized in the full financial year per accounting measures, as opposed to cash received in the full financial year.

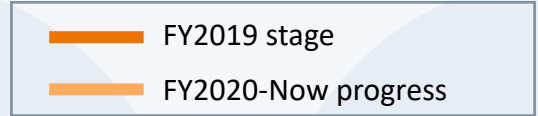
Progression of Partnered Pipeline



Compound	Target / Mechanism of Action	Modality	Indication	Partner	Disc.	PCC	Ph1	Ph2	Ph3	App	Mkt
Traditional Out-licensing Collaborations											
Seebri® Breezhaler®	LAMA	SME	COPD	NOVARTIS	█	█	█	█	█	█	█
Ultibro® Breezhaler®	LAMA+LABA	SME	COPD	NOVARTIS	█	█	█	█	█	█	█
Energair® Breezhaler®	LAMA+LABA+ICS	SME	Asthma	NOVARTIS	█	█	█	█	█	█	█
ORAVI®	Antifungal agent miconazole	SME	Oropharyngeal candidiasis	FUJIFILM	█	█	█	█	█	█	█
Imaradenant	Adenosine A2a ant. combo	SME	mCRPC	AstraZeneca	█	█	█	█	█	█	█
Imaradenant	Adenosine A2a antagonist	SME	Solid tumors	AstraZeneca	█	█	█	█	█	█	█
PF-07081532	GLP-1 agonist	SME	T2DM / Obesity	Pfizer	█	█	█	█	█	█	█
PF-07054894	CCR6 antagonist	SME	Inflammatory bowel disease	Pfizer	█	█	█	█	█	█	█
Not disclosed	Single target	SME	Metabolic and other	Pfizer	█	█	█	█	█	█	█
BHV3100	CGRP antagonist	SME	Neurology diseases	biohaven	█	█	█	█	█	█	█
Not disclosed	GPR35 agonist	SME	Inflammatory bowel disease	gsk	█	█	█	█	█	█	█
Not disclosed	Multi target	SME	Multiple indications	Pfizer	█	█	█	█	█	█	█
Not disclosed	Multi target	SME/LME	Multiple indications	Genentech	█	█	█	█	█	█	█
Not disclosed	Multi target	SME/LME	Gastrointestinal and other	Takeda	█	█	█	█	█	█	█
Not disclosed	Single target	SME	Inflammatory diseases	abbvie	█	█	█	█	█	█	█
Co-development / Profit-share Collaborations											
KY1051	CXCR4 mAb	mAb	Immuno-oncology	SANOBI kymab	█	█	█	█	█	█	█
Not disclosed	PAR-2	Peptide	Inflammatory diseases	peptidream	█	█	█	█	█	█	█
Not disclosed	Targeted Protein Degradation	SME	Gastrointestinal disorders	Captor Therapeutics®	█	█	█	█	█	█	█
Not disclosed	AI-Augmented Drug Discovery	SME	Neurology diseases	PHARMENABLE	█	█	█	█	█	█	█
Not disclosed	Ion Channel Drug Discovery	SME	Neurology diseases	metrion	█	█	█	█	█	█	█
Co-owned investments											
TMP301	mGlu5 NAM	SME	Substance use disorders	Temporo Bio	█	█	█	█	█	█	█
Not disclosed	OX1/OX2 agonist	SME (Oral)	Narcolepsy	Orexia	█	█	█	█	█	█	█
Not disclosed	OX1/OX2 agonist	SME (Intranasal)	Narcolepsy	INEXIA	█	█	█	█	█	█	█

Note: Seebri®, Ultibro®, Energair® and Breezhaler® are registered trademarks of Novartis AG.

Progression of In-house Pipeline



Compound	Target / Mechanism of Action	Modality	Indication	Originator	Dis	PCC	Ph1	Ph2	Ph3	App	Mkt.
In-house Programs (Not yet partnered)											
HTL0016878	Muscarinic M4 agonist	SME	Neurology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
HLT0018318	Muscarinic M1 agonist	SME	Neurology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
HLT009936	Muscarinic M1 agonist	SME	Neurology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	Muscarinic M1 agonist (B/U)	SME	Neurology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	Muscarinic M4 agonist (B/U)	SME	Neurology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	Muscarinic M1/M4 agonist	SME	Neurology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
HTL0030310	SSTR5 agonist	Peptide	Endocrine disorders	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed ¹	GLP-1 antagonist	Peptide	Endocrine disorders	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	GLP-2 agonist	Peptide	Intestinal failure	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	H4 antagonist	SME	Atopic Dermatitis	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	EP4 antagonist	SME	Immuno-oncology	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	GPR52 agonist	SME	Neurology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	PAR-2 mAb	mAb	Atopic Dermatitis	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Not disclosed	SARS CoV-2 Mpro	SME	Coronaviruses	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Multiple programs	Not disclosed	SME/LME	Neurology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Multiple programs	Not disclosed	SME/LME	GI and Inflammatory diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
Multiple programs	Not disclosed	SME/LME	Immunology diseases	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						
In-house Programs (Suspended)											
HTL0018318 ²	Muscarinic M1 agonist	SME	DLB	●●● SOSEI HEPTARES	[Progress bar: Dis, PCC, Ph1, Ph2, Ph3, App, Mkt.]						

Note: ¹The option to license GLP1 antagonist peptide was not exercised before 31 December 2020 and therefore the program is currently wholly in-house. ²Phase 2 trial of HTL0018318 for DLB in Japan has been withdrawn. The Group may resubmit a new clinical trial notification for HTL0018318 (or another novel M₁ agonist) to the Japanese Pharmaceuticals and Medical Devices Agency (PMDA) in the future.

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