



World leading drug discovery  
targeting GPCRs

UBS Healthcare Virtual Conference

# 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.

© Sosei Group Corporation. Sosei Heptares is the corporate brand and trademark of Sosei Group Corporation. Sosei, Heptares, the logo and StaR® are trademarks of Sosei Group companies.

# World leading drug discovery targeting GPCRs

**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

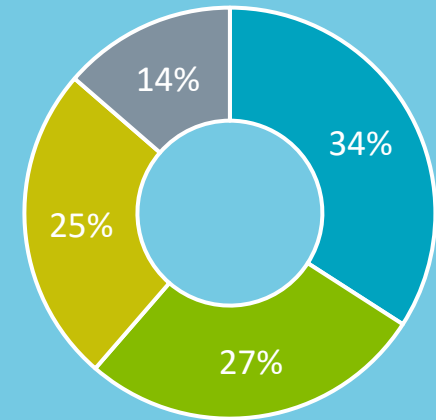
**Listed** on Tokyo Stock Exchange  
(4565-JP)



## 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



**200+**  
EMPLOYEES  
WORLDWIDE



**300+**  
STRUCTURES  
SOLVED



**500+**  
GLOBAL  
PATENTS



**15+**  
WORLD-LEADING  
PARTNERS

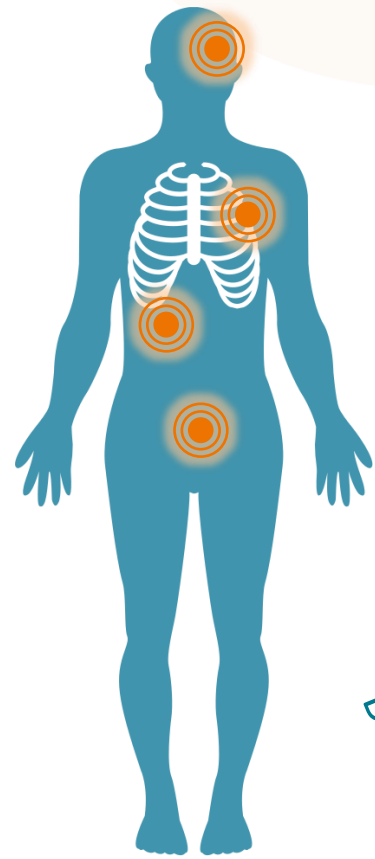


**\$700M+**  
PARTNER REV.  
RECEIVED TO DATE<sup>1</sup>

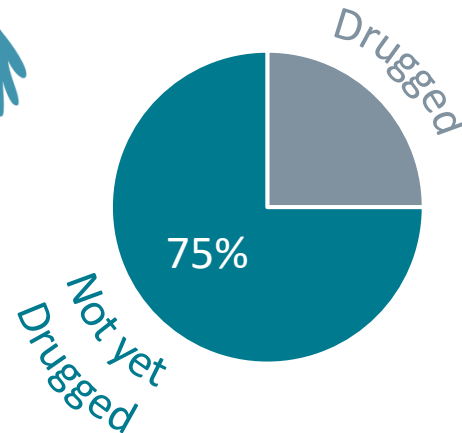
<sup>1</sup> Includes upfront and milestone payments, royalties and R&D funding received from active, inactive and completed partnerships from 2005 to 2020.

# We can unlock the potential of GPCRs with our StaR<sup>®</sup> technology

GPCRs are well-known targets with **significant untapped opportunity**



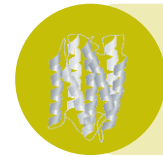
~400  
GPCR  
PROTEINS



StaR<sup>®</sup> enables us to **unlock the potential of GPCRs** via advanced understanding of their **structure and atomic/molecular interactions**



Unstable  
native GPCR



Stabilized  
StaR<sup>®</sup> protein

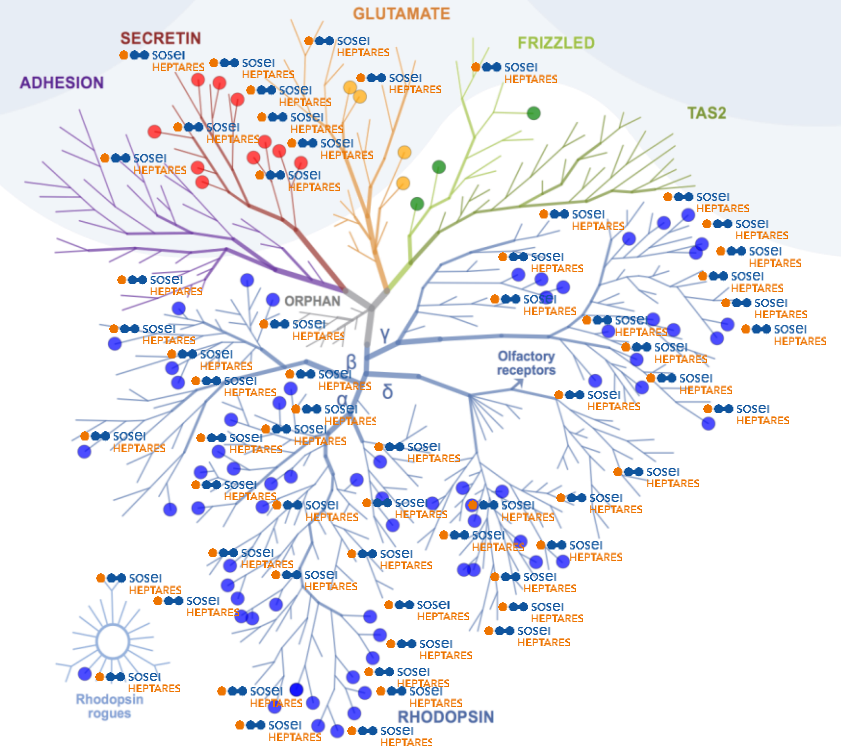
Enables mAb discovery

SBDD



Novel drug  
candidate

SMEs and Peptides



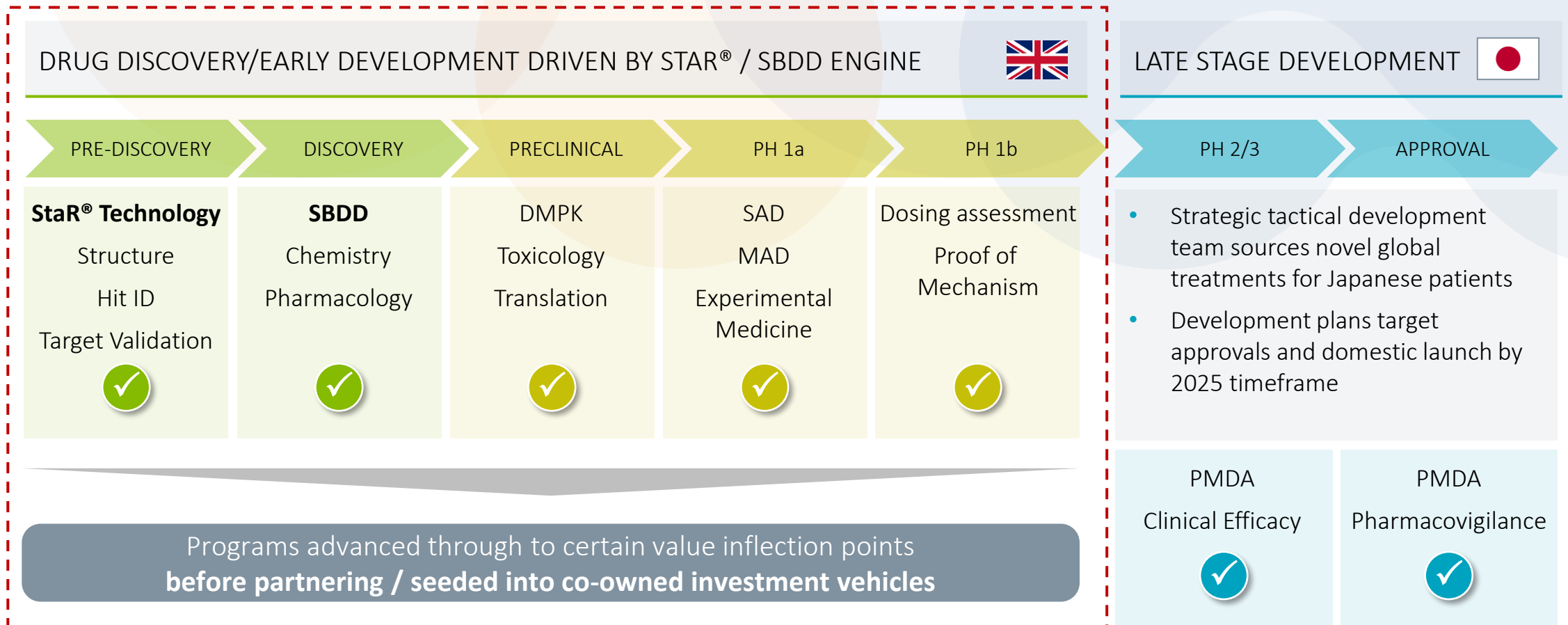
Solved **300+** molecular structures  
from **30+** different receptors / **60+** StaRs

Sources: "Unexplored opportunities in the druggable human genome", Nature Reviews, 2016 ;  
"Trends in GPCR in Drug Discovery – new agents, targets and indications", Nature Reviews,  
4 2017; Management analyses

● 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<sup>®</sup>

# Core capabilities in drug discovery and early development, with a late-stage development team in Japan focused on in-licensing



# Established track record of attracting world-leading partners

## Active Partnerships



**~\$700 million**

Upfront and milestone payments, royalties and R&D funding received from partners to date<sup>1</sup>

## Active Spin-Out Asset Centric Vehicles

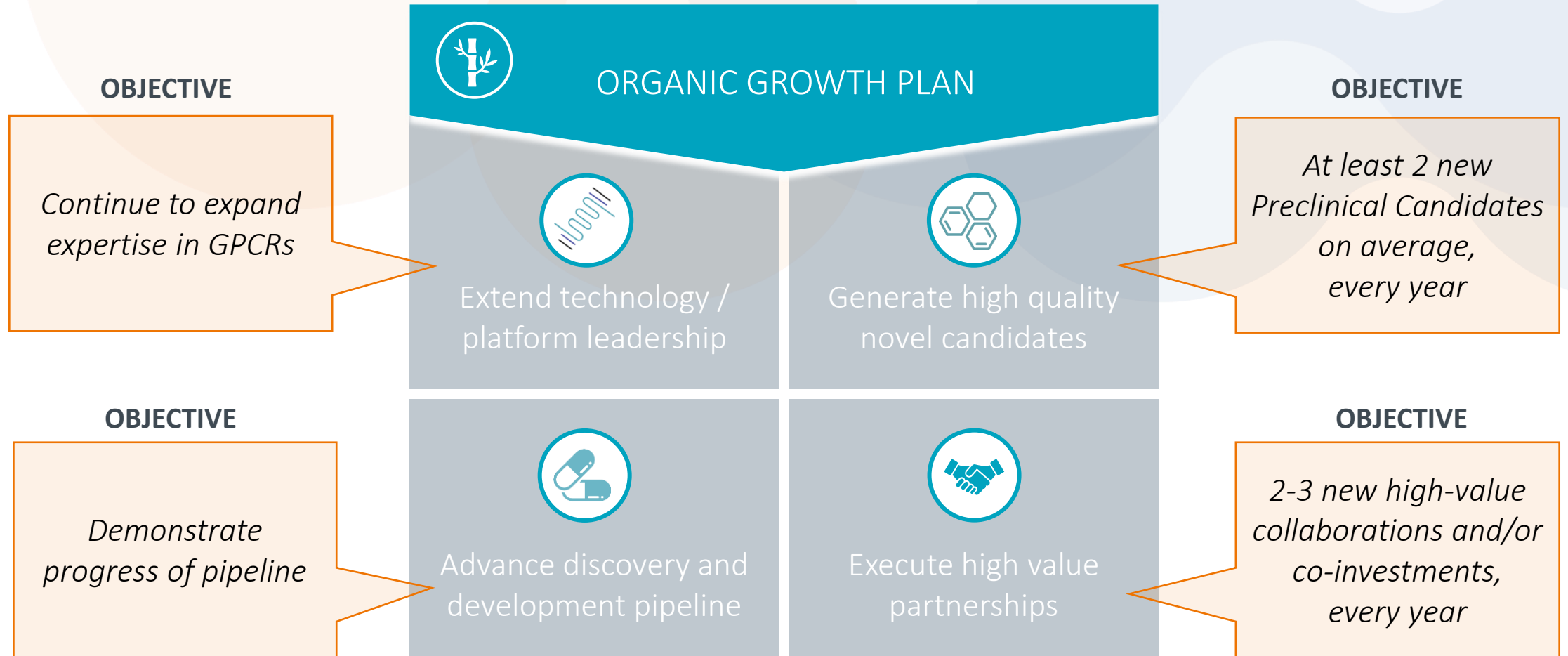


**~\$6 billion**

Total potential deal value of active partnerships<sup>2</sup>

<sup>1</sup> Encompasses payments received from active, inactive and completed partnerships from 2005 to 2020. <sup>2</sup> Includes potential option fees, upfront, development, regulatory and commercial milestone payments and committed R&D funding. Excludes potential royalty payments.

# 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

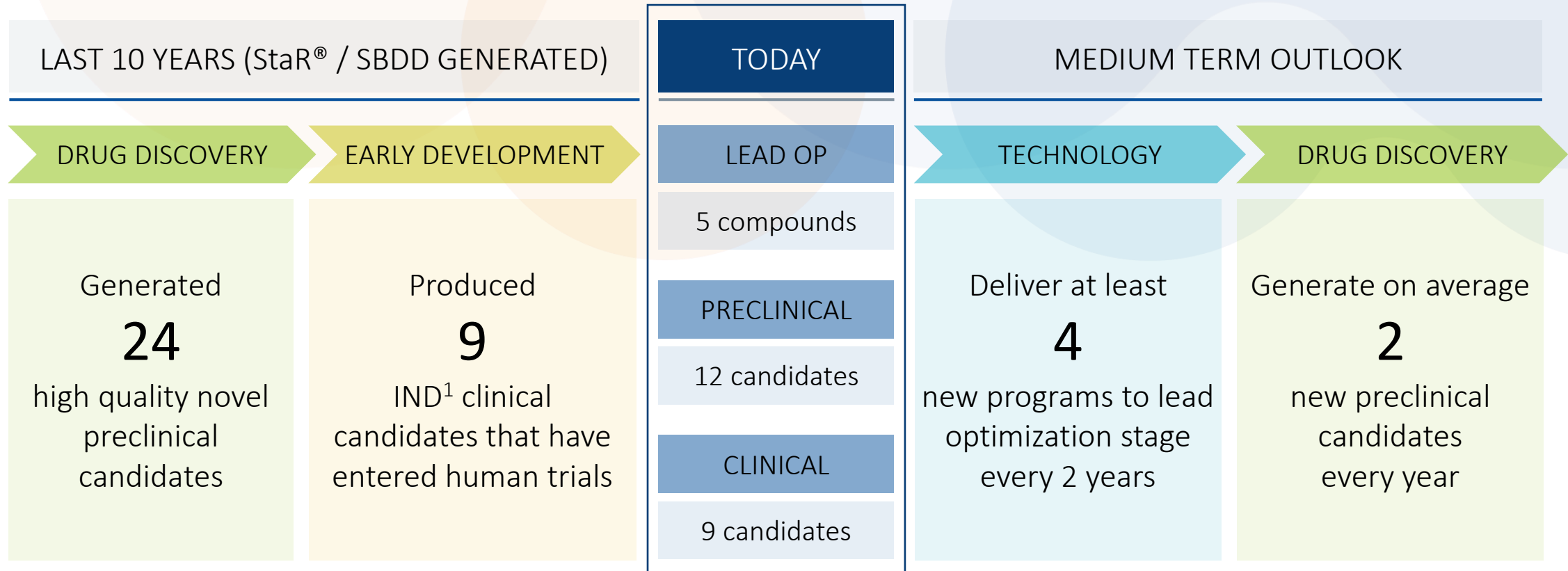


All organic growth objectives successfully achieved





# Our StaR<sup>®</sup> 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: <sup>1</sup>IND = Investigational New Drug



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

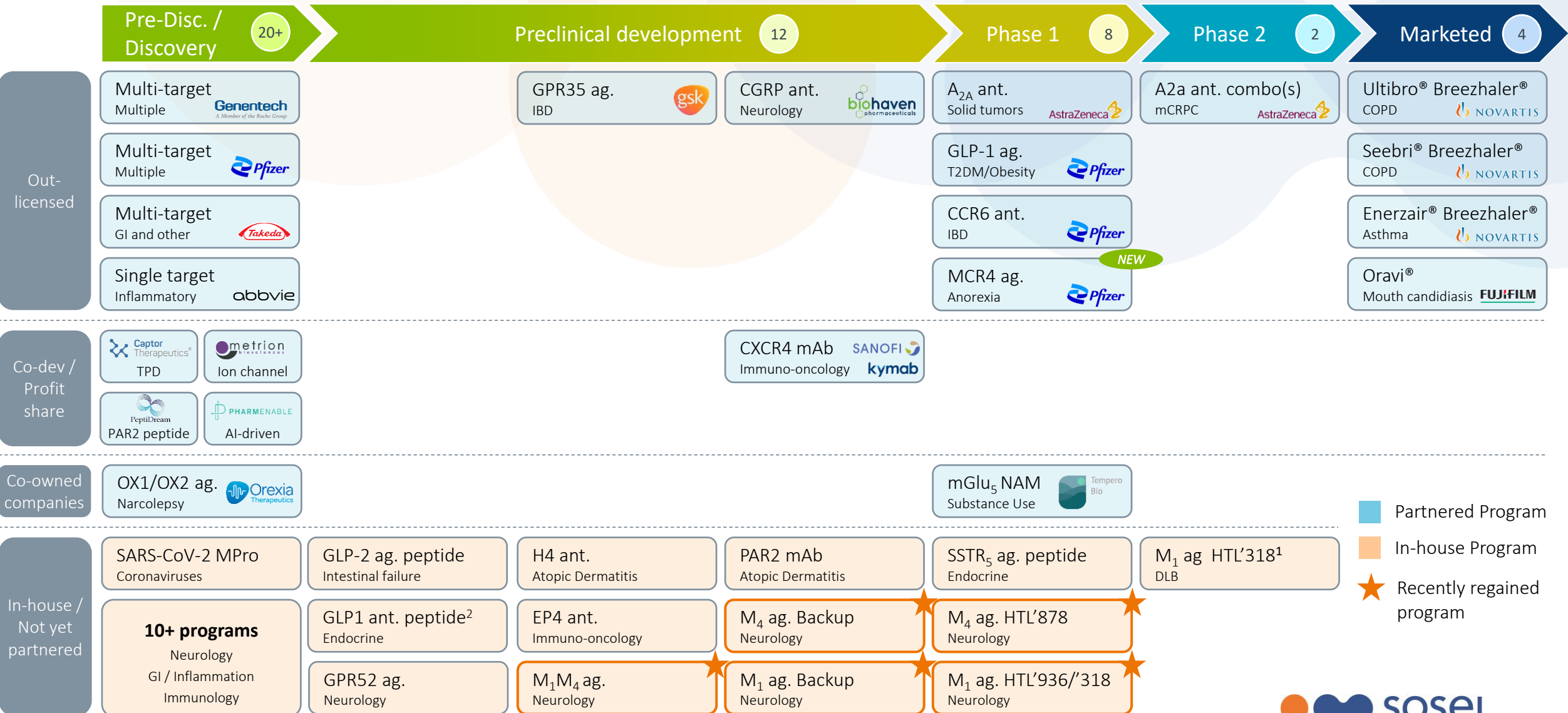
Partner	Active Partnered Program	Therapeutic Area	UF / Near Term Payments	Potential deal value <sup>1</sup>
	2020 Collaboration and Licensing Agreement for GPR35 agonist	Gastrointestinal, immunology	\$44m	\$480m+
	2020 Collaboration and Licensing Agreement for CGRP antagonist	Neurology	\$10m	\$380m+
	2020 Discovery Collaboration and Option to License <sup>2</sup>	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 <sub>2a</sub> antagonist	Immuno-oncology	\$10m	\$500m+
<b>TOTAL</b>			<b>\$148m</b>	<b>\$5.9bn+</b>

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

<sup>2</sup> AbbVie has the option to expand the collaboration by an additional three targets



# 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. <sup>1</sup> Phase 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 M<sub>1</sub> agonist) to the Japanese Pharmaceuticals and Medical Devices Agency (PMDA) in the future. <sup>2</sup>The option to license GLP1 antagonist peptide was not exercised before 31 December 2020 and therefore the program is currently wholly in-house.



# Potential to deliver transformative new treatments for patients

Muscarinic M<sub>4</sub> and M<sub>1</sub> receptors are validated targets for psychosis and cognition

Muscarinic M<sub>4</sub> and M<sub>1</sub> 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 M<sub>4</sub>/M<sub>1</sub> 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 Shekhar <sup>1</sup>, 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 Bodick <sup>1</sup>, 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 M<sub>4</sub> and/or M<sub>1</sub> receptor agonists **with selectivity** over peripheral muscarinic M<sub>2</sub> and M<sub>3</sub> receptor subtypes have the **potential to be transformative treatments**

Source: World Health Organization



# HTL'878 potential to deliver transformative treatments for patients

Schizophrenia 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

1<sup>st</sup> Gen

D2 modulating

Atypicals

Dual D2/5HT modulating

2<sup>nd</sup> Gen Atypicals

Dual D2/5HT modulating



Huge opportunity for HTL'878

✓ Selective M<sub>4</sub> 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



# HTL'878 is now the focus of increased capital allocation from us to enable acceleration, whilst maintaining investment other programs

Program	Compound	Stage	FY2021	FY2022	Muscarinic budget R&D allocation*
M <sub>4</sub> agonist	HTL'878	Ph 1	Preparation for Phase 2	Phase 2 start Phase 2 trial activity	50%
M <sub>1</sub> agonist	HTL'318	Ph 1	Toxicity test Data analysis / comparison with backup	Prioritization of which selective M <sub>1</sub> agonist program to progress, to be decided by end of 2021	25%
	Undisclosed (M <sub>1</sub> Backup)	Candidate Selection	Preclinical development		
M <sub>1</sub> / M <sub>4</sub> dual agonist	Undisclosed	Candidate Selection	Preclinical development		25%
<b>Portfolio Partnering Activity</b>			Active negotiations with multiple potential partners	Targeting partnership execution by end of 2021	-

Note: Progress schedule outlined for key muscarinic programs only.

\*Budget allocation within the Muscarine program, not overall R&D budget allocation

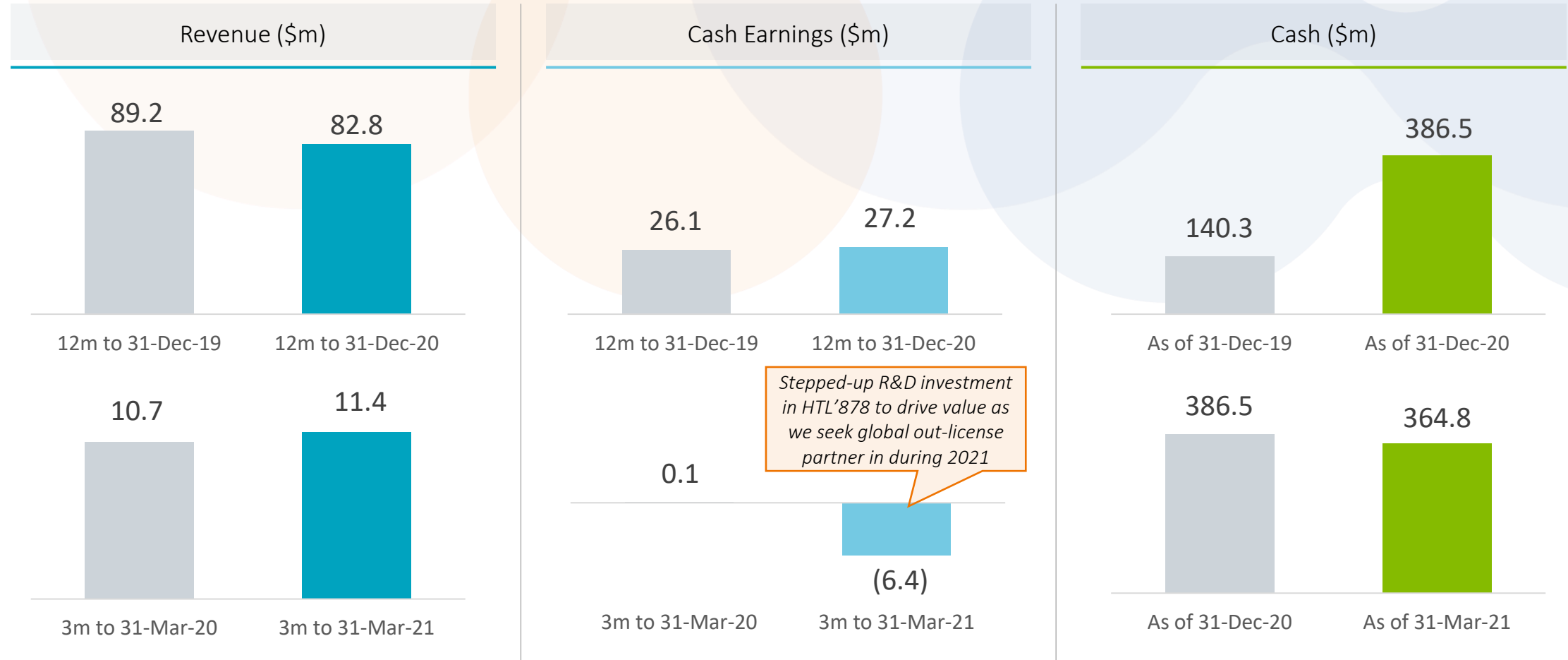
# Strategic growth plan driving corporate value expansion



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

✓ Recent collaborations FY20/FY21

# Summary Financial Highlights (FY20 and 1Q 21)



Our balanced business model supports a **biotech with a unique investment/risk profile**.  
**Strong potential upside** from novel drug discovery, with the **stability of sustainable financials**

Note: USD:JPY FX rates used – 108.91 (FY2021), 106.77 (FY2020) and 109.03 (FY2019)



# Priority objectives for FY2021



## Progress organic growth plan

- Extend technology / platform leadership
- Generate high quality novel candidates
- Advance discovery and development pipeline
- Execute high value partnerships



## Execute strategic growth plan

- Transformative revenue-generating acquisition
- In-license late-stage assets for Japan market
- Invest / collaborate in novel technologies
- Expand drug target classes beyond GPCRs



## Commitment to sustainable development goals

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

Thank you for your attention

Chris Cargill  
*Chief Financial Officer*

IR@soseiheptares.com

## 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



[www.soseiheptares.com](http://www.soseiheptares.com)



[@soseiheptaresco](https://twitter.com/soseiheptaresco)



[@soseiheptaresco](https://www.linkedin.com/company/soseiheptaresco)



[@soseiheptaresco](https://www.youtube.com/channel/UC...)