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## Agenda

- Business Overview
- Strategic Roadmap
- Our Medicines and Pipeline
- Our NxWave<sup>TM</sup> Platform
- Financial Results
- Appendix





## Leading the Next Era of Medicine. From Japan, for Japan, and the world

World-leading NxWave<sup>TM</sup> platform (UK), coupled with Japan's most effective development and commercial organization

## Our Mission

To accelerate the development of life-changing medicines, by investing in science and technology.

## Our Vision

To lead the next era of medicine.

From Japan, for Japan, and the world.

## Our Values

- Patients come first
- Innovation and teamwork
- Focus
- Speed and agility
- Operational excellence



#### We are Nxera Pharma

A technology-powered biopharma in pursuit of new specialty medicines to improve the lives of patients

#### Cutting-edge Science

WORLD-LEADERS IN GPCR STRUCTURE-BASED DRUG DESIGN

Strong focus on GPCR targets – solved 375+ molecular structures

## Programs by Design

**30+ ACTIVE PROGRAMS** 



CNS



GI 33%



IMM 9%



Other

#### Real Human Outcomes

#### PROTECTING LIVES EVERYDAY

10,300+ patients have received Pivlaz® (Japan and shortly South Korea) +4 other partnered marketed products



TSE: 4565

Tokyo Stock Exchange Prime



350+ FTE Employees



5 Global Locations

Tokyo, Cambridge, London, Seoul & Basel



Revenue-Generating \$350m+ Cash in hand (Dec-2023)



### Global Corporate Structure

Over 350 team members employed across Japan, South Korea, UK and Switzerland





# Nxera Pharma UK Limited (formerly "Heptares Therapeutics") Cambridge | ~170 staff



Nxera Pharma Japan Co., Ltd. (formerly "IPJ" and "Sosei Co.")
Tokyo | ~130 staff



Nxera Pharma Korea Co., Ltd. (formerly "IPK")

Seoul | ~6 staff

#### Research & Drug Discovery

- NxWave<sup>TM</sup> SBDD Platform
- Drug Discovery
- Translational Medicine
- Early Clinical Development
- Business Development

#### **Drug Development & Commercial Operations**

- Clinical Development
- Regulatory Affairs
- Marketing Authorisation Holder
- Commercial Sales (direct and via partners)

#### **Drug Development & Commercial Operations**

- Clinical Development
- Regulatory Affairs
- Marketing Authorisation Holder
- Commercial Sales (via partners)



Eiko Tomita

**Reg Affairs** 

## Agile and decisive leadership team

#### **BOARD OF DIRECTORS**

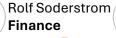






Tomohiro Toyama/ Legal





















Tech/ESG m) POWER Morgan Stanley

Miwa Seki

#### **EXECUTIVE MANAGEMENT**



J.P.Morgan

Kieran Johnson **Chief Accounting Officer** 







**Group Operations** Tokyo / London



Chris Cargill **Chief Executive Officer** 



J.P.Morgan

Hironoshin Nomura **Chief Financial Officer** 



Toshihiro Maeda **Chief Operating Officer** 



Bristol Myers Squibb

Kazuhiko Yoshizumi **Chief Compliance Officer** 



**UK Research & Development Operations** 







Research & Early Development Discovery / Preclinical / Phase I

Development & Commercialization Phase II / III / IV

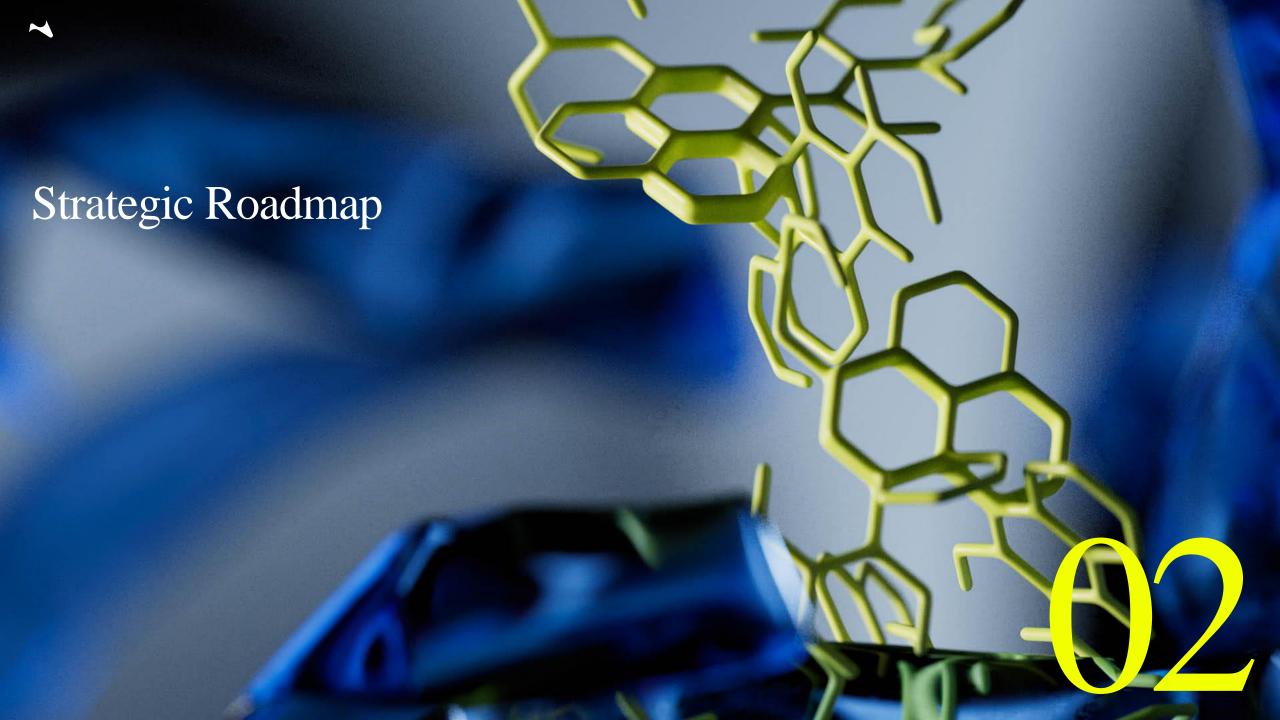




Satoshi Tanaka **President of Nxera Pharma Japan** 







## Our History

Strategic steps taken to build Nxera over the last two decades

#### 2000s

# Launched a public company dedicated to **bringing innovation to**Japan

✓ IPO on TSE (MOTHERS) in 2004

Made strategic acquisitions to bring **steady revenue** through groundbreaking medicines

- \$186m acquisition of Arakis Limited in

  2005
- Royalty revenues from Breezhaler® medicines from 2012 to present

**ARAKIS** 

2015

# Out-licensed several programs to global pharma to generate profit, a cash reserve and a larger market valuation

√ 15+ partnered programs that generate upfront and milestone revenue (plus future royalties)

Invested in research-focused companies that could generate a continuous pipeline of new medicines

\$400m acquisition of Heptares Therapeutics Limited in 2015



2023

Elevated our status in the **Tokyo Stock Exchange**, improving access to institutional investors

- ✓ Promotion to TSE (PRIME) segment in 2023
- First public healthcare investment by the Japan Investment Corporation in 2023

Acquired a commercial-stage pharmaceutical company which provided an **integrated platform** for even greater sustainable revenue growth

- \$466m acquisition of Idorsia Pharmaceuticals Japan and Korea
- Rapidly growing revenues from sales of PIVLAZ®



2024



Launched new corporate branding:

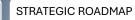
#### **Nxera Pharma Co**

With a vision to lead the next era of medicine.

From Japan, for Japan, and the world.



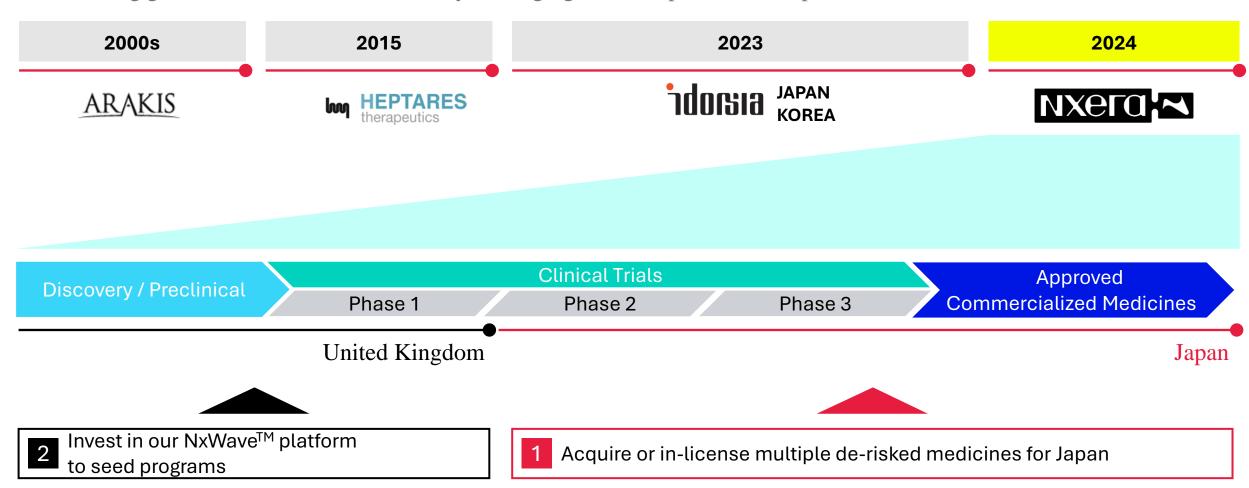




**OVERVIEW** 

## Building a fully integrated biopharma from Japan

Accelerating growth to achieve our mission by leveraging business platform in Japan and UK



#### Our mission is clear

Accelerate the development of life-changing medicines

1

Acquire or in-license multiple de-risked medicines for Japan

2

Invest in our
NxWave<sup>TM</sup> platform
to seed programs

3

Build a first-class technology environment

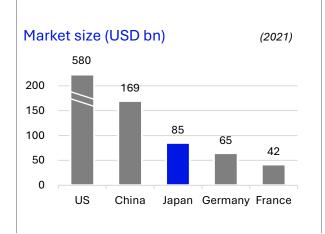
Focusing on these three areas is how we plan to make our mission happen as fast as possible



## Japan will serve as our base to expand across APAC markets

Japan is an attractive, established market with strong volumes

Japan is the second largest pharma market (ex-China)



Tailwinds from nearterm regulatory changes

Japan Phase 1 Drug

Longer Needed for

Global Clinical Trials

Clinical Trials No

**✓** 

 Excellent access to Doctors/HCPs who evaluate novel drugs

High quality clinical

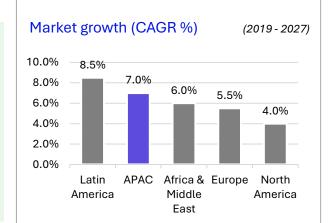
and regulatory

environment

- Typically achieve strong patient uptake
- Reduces drug loss and drug lag for Japan patients

APAC is the second highest growth pharma market





Source: IQVIA Market Prognosis, Sep 2022; IQVIA Institute, Nov 2022.

APAC (ex-China) territory includes South Korea, Australia, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, New Zealand, Philippines, Singapore, Taiwan, Thailand and Vietnam



# Priority objectives for FY2024

01 ) JPY 16 billion+ NHI sales for PIVLAZ®

ON-TRACK

02

JNDA approval for daridorexant in Japan

**ON-TRACK** 

03

Acquire/in-license <u>at least one</u> late-stage medicine for Japan/APAC (ex-China)

ON-TRACK

04

Execute at least one new major partnership, and initiate <u>at least one</u> new in-house Ph.1 study







EP4 ag.



PMI investment in new brand concept, plus systems and applications for efficiency and scalability

ON-TRACK



## Achievements and several potential catalysts in 2024 and early 2025

Potential catalysts of in-house and out-licensed programs (excluding new business development transactions)

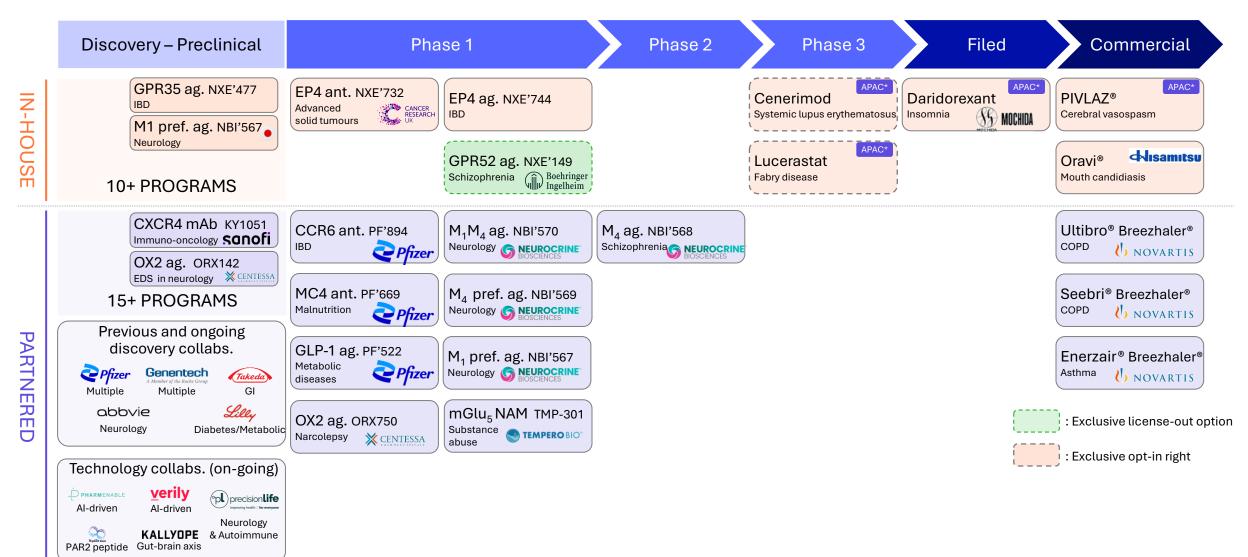
	PROGRAM	PARTNER	TIMING	EVENT
$\bigcirc$	EP4 Ag	NXera <mark>∼</mark>	Achieved (Mar. 2024)	Ph.1 start
$\bigcirc$	GPR35 Ag	GSK NXera:≺	Achieved (Mar. 2024)	Program reversion
$\bigcirc$	GPR52 Ag	Boehringer Ingelheim	Achieved (Mar. 2024)	Option-to-license agreement
$\bigcirc$	NBI-568 (M4 Ag)	S NEUROCRINE BIOSCIENCES	Achieved (Apr. 2024)	Long-term TOX study completed
$\bigcirc$	NBI-567 (M1 pref. Ag)	S NEUROCRINE° BIOSCIENCES	Achieved (May 2024)	Ph.1 start
$\bigcirc$	ORX750 (Ox2 Ag)	CENTESSA	Achieved (May 2024)	Ph.1 start
$\bigcirc$	NBI-568 (M4 Ag)	NEUROCRINE® BIOSCIENCES	Achieved (Aug. 2024)	Ph.2 topline data
	Cenerimod	idorsia	2H 2024	Exclusive opt-in decision
	Lucerastat	idorsia	2H 2024	Exclusive opt-in decision
	Daridorexant (Sth Korea)	NXera¦∼	2H 2024	New Partnership & Ph.3 start
	Daridorexant (Japan)	MOCHIDA PHARMACEUTICAL <sup>1</sup>	2H 2024	NDA Approval & Launch
	ORX750 (Ox2 Ag)	<b>EXECUTES SA</b>	2H 2024	Ph.1 completion & POC data
	TMP-301 (mGlu5 NAM)	TEMPERO BIO"	2H 2024	Ph.2 start
	NBI-568 (M4 Ag)	NEUROCRINE® BIOSCIENCES	1H 2025	Ph.3 start
	PIVLAZ® (Sth Korea)	HANDOK OF NXCIO	1H 2025	New partnership (achieved) & Launch

<sup>&</sup>lt;sup>1</sup> Co-development and co-promotion agreement with Mochida





## Active Pipeline Overview





## Our product: PIVLAZ®

Our first commercially available medicine protecting Japanese lives every day

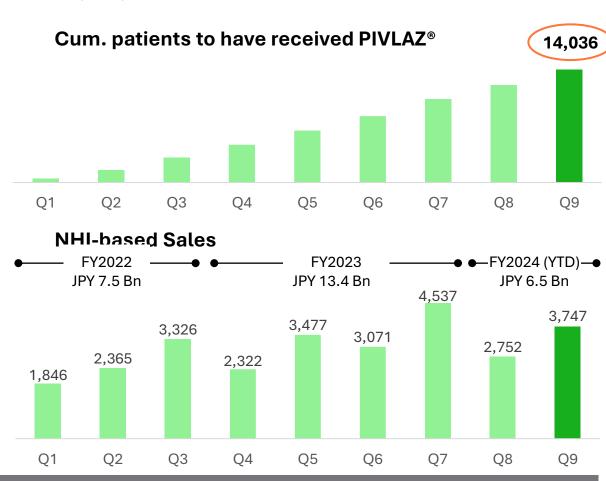


#### JP GUIDELINES INCLUSION FOR MANAGEMENT OF STROKE<sup>1</sup>

- Aug '23: Authorized and recommended by the Japanese Stroke
   Society
- Excellent efficacy demonstrated for prevention of cerebral vasospasm following Subarachnoid Hemorrhage (SAH)
- Provides confidence to neurosurgeons to prescribe PIVLAZ® as a new standard of care for SAH based on strong evidence it can prevent delayed cerebral ischemia and poor outcomes

#### MARKETING APPROVAL FOR SOUTH KOREA

- Dec '23: Received Marketing Approval in South Korea
- Early 2025: Commercially available to patients



PIVLAZ® rapidly building real world evidence mitigating the risk of cerebral vasospasm



## In-house pipeline: Daridorexant

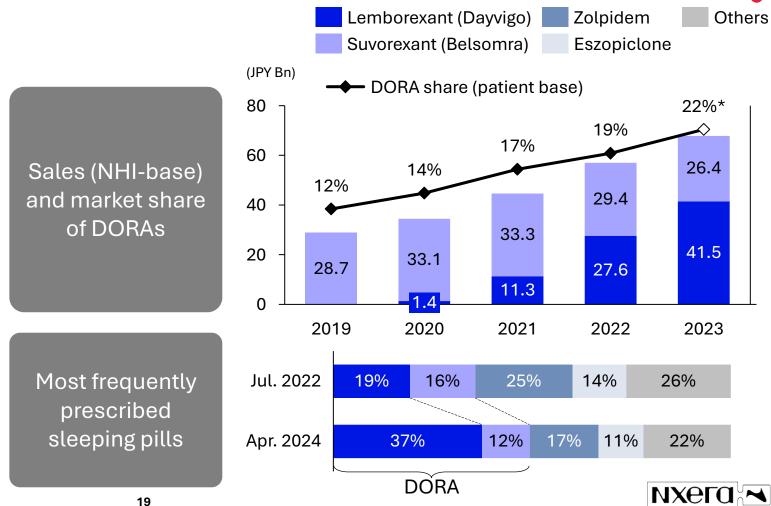
On-track for JNDA approval in H2 2024

#### **About daridorexant**

- Dual orexin receptor antagonist (DORA) for the treatment of chronic insomnia
- Approved in the US, Europe, Canada (2022) - marketed as QUVIVIQ®
- Positive results in Japan Phase 3 trial reported in Oct 2022, and JNDA filing submitted in Oct 2023
- Market exclusivity until 2038 (Japan and South Korea)

# (daridorexant) 25 mg, 50 mg

#### DORA: rapidly establishing its position in insomnia treatment

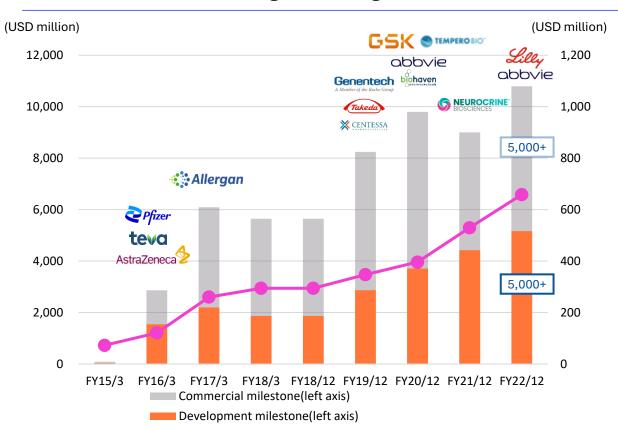


Source: Nikkei Medical (2022/7/23, 2024/4/13), IQVIA, Encise \* Estimation

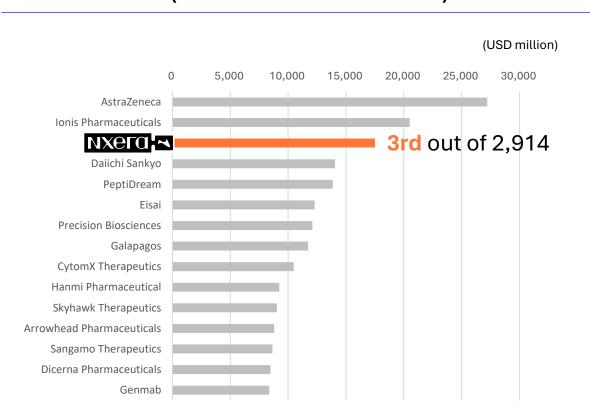
## Our track record of major licensing transactions speaks for itself...

Income from licensing provides a great source of non-dilutive financing to support our growth

# Balance of potential milestone income from existing license agreements<sup>1</sup>



# Top 15 pharmaceutical/biotech companies by license value<sup>2</sup> (cumulative total since 2015)



Balance as of the end of the fiscal year of only those currently under contract. TEVA and Abbvie (formerly Allergan), for which compounds were returned, are excluded from the balances from FY2018 and FY2021, respectively.



<sup>&</sup>lt;sup>2</sup> The figures are based on 'Licensing' category on third party's (EvaluatePharma's) proprietary database and therefore do not completely match the amounts shown in the LHS chart. Source: Company's data (LHS) and EvaluatePharma (as of 2023/2/6) (RHS)

## ... hundreds of millions of dollars received, billions of dollars in potential milestones to come

New collaboration and exclusive option to license agreement recently executed with Boehringer Ingelheim

Partner	Execution	Program	Therapeutic Area(s)	Upfront and Initial Milestones	Potential Total Milestone <sup>1</sup>
Boehringer Ingelheim	March 2024	Collaboration and exclusive option-to- license agreement for GPR52 agonist	Schizophrenia	EUR25m	EUR670m
Lilly	December 2022	Multi-target Collaboration	Diabetes and Metabolic	\$37m	\$800m
abbvie	August 2022	Multi-target Collaboration	Neurological disorders	\$80m	\$1.2bn
S NEUROCRINE' BIOSCIENCES	December 2021	Collaboration and license agreement for M <sub>4</sub> , M <sub>1</sub> and M <sub>1</sub> /M <sub>4</sub> dual agonist	Neurological disorders	\$100m	<b>\$2.6bn</b>
GSK	December 2020	Collaboration and license agreement for GPR 35	Gastrointestinal, immunology	\$44m	\$480m
biohaven Pharmaceuticals	December 2020	Collaboration and license agreement for CGRP portfolio	Neurology	\$10m	\$380m
abbvie	June 2020	Discovery Collaboration and Option to License <sup>2</sup>	Inflammatory and Autoimmune	\$32m	\$400m
Takeda	August 2019	Multi-target Collaboration	Multiple; Initial focus on Gastrointestinal	\$26m	\$1.2bn
Genentech A Member of the Roche Group	July 2019	Multi-target Collaboration	Multiple	\$26m	\$1bn
<b>₹</b> Pfizer	November 2015	Multi-target Collaboration	Multiple	-	\$1.8bn

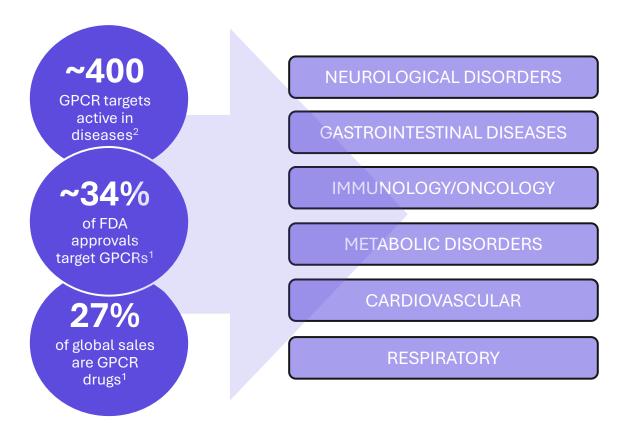
<sup>&</sup>lt;sup>1</sup>Potential option fees, development, regulatory and commercial milestone payments agreed at the time of transaction. Nxera is also eligible to receive tiered royalties ranging from high single digit to mid-teen percentage on future net sales of any products developed under the partnership. <sup>2</sup> AbbVie has the option to expand the collaboration by an additional three targets



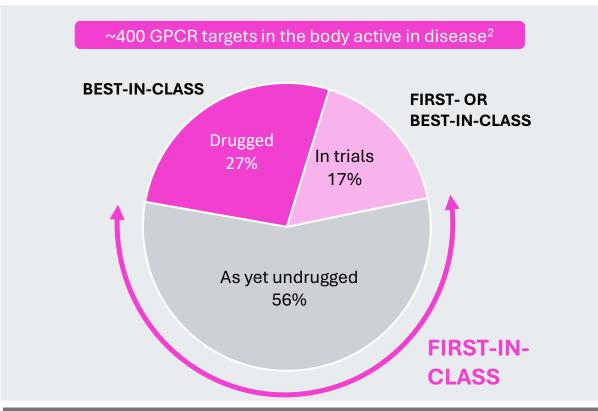


## NxWave<sup>TM</sup> platform is focussed on drugging GPCRs

GPCRs are the largest family of drug discovery targets – comprising 1/3 of all FDA approved drugs



GPCRs are active in a wide range of disease areas, and offer broad therapeutic potential



Significant opportunity to target new first-in-class and/or improved best-in-class GPCR medicines



## NxWave<sup>TM</sup> platform enables faster, cheaper and more precise drug discovery

World-leading science and platform enables efficient drug discovery against difficult targets

	Conventional drug discovery	Our drug discovery
Approach	Empirical design	Rational design (computer-based)
Method	High Throughput Screening (HTS <sup>1</sup> )	Proprietary NxWave™ Platform
Period <sup>2</sup>	4.5 years on average	3.0 years on average
Costs <sup>2</sup>	\$15 million	\$5 million
Features <sup>3</sup>	Difficult to design drugs precisely  – high development attrition rate	Execute more precise drug design – lower development attrition rate
Target <sup>3</sup>	Difficult for GPCRs with unstable structures	Best for GPCRs with unstable structures

<sup>&</sup>lt;sup>1</sup> HTS/High Throughput Screening is a method to find drug candidates by reacting tens of thousands to millions of compounds with drug targets using large machines and human hands.

<sup>&</sup>lt;sup>3</sup> Precise drug design make clear the binding site of target, make easier to improve compound, create backups and redo – potentially increase the success rate. GPCR is most popular drug target which account for 30% of current drug target.



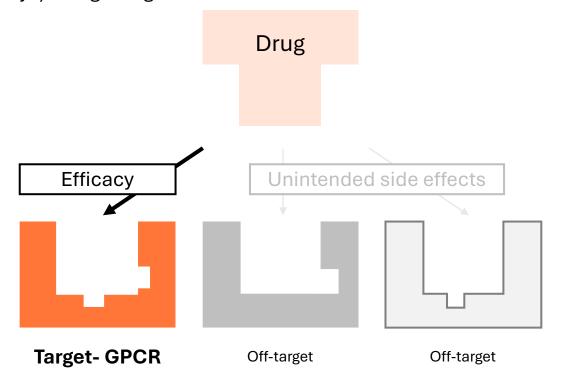
<sup>&</sup>lt;sup>2</sup> The period from target selection to preclinical testing. For conventional drug discovery, figures are taken from NATURE REVIEWS Drug Discovery (MARCH 2010).

## Our platform enables to design precise GPCR models

Only by performing detailed structural analysis can we design great drugs.

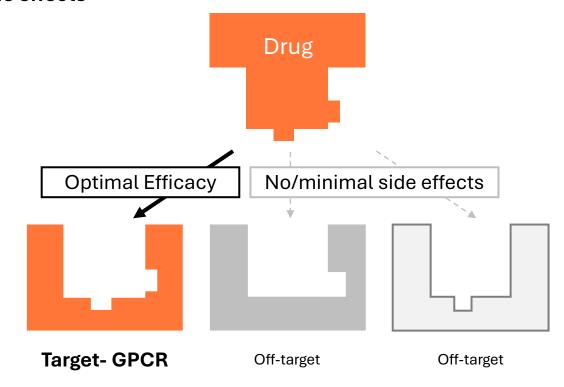
#### Imprecise GPCR model: Standard Medicine

Poorly understood GPCRs (locks) led to suboptimal drugs (keys) being designed



## Precise GPCR model: Optimized Medicine

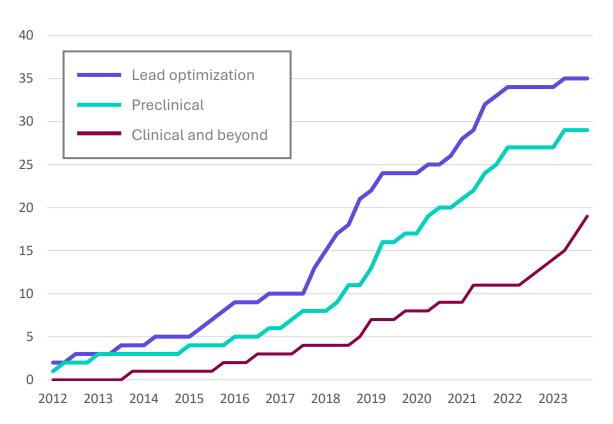
High selectivity enables to **optimize efficacy and minimize side effects** 





## NxWave<sup>TM</sup> platform has proven to be more productive than conventional approaches

#### Trends in the number of programs per stage (cumulative)\*



#### Number of programs\* 2022 vs 2023

	2022	2023
Drug discovery	20+	20+
Lead optimization	7	8
Preclinical	9	6
Clinical - Phase 1	7	11
Clinical – Phase 2	3	3
Clinical – Phase 3	0	0
Approval application	0	0
Approved	0	0

<sup>\*</sup> The number of programs here represents the number of all drug candidates generated to date from our NxWave<sup>TM</sup> drug discovery platform by stage and includes programs that are not currently being actively developed by us or our partners due to lower priority.



## Exposed to the fastest growing areas of medicine

Advancing with world-leaders in neuropsychiatry, metabolic disease, and sleep disorders

#### Neuropsychiatry



- Oral, selective muscarinic M4 agonist (NBI-568) for Schizophrenia. Phase 2 POC<sup>1</sup> data readout expected Q3 2024
- Most comprehensive portfolio of muscarinic agonists in development globally, sourced from Nxera

1. POC = Proof Of Concept



- Option to license collaboration with BI for FIC GPR52 agonists (NXE-149) advancing through Phase 1
- Potential to simultaneously address positive, negative and cognitive symptoms of Schizophrenia

#### Metabolic disease



- NxWave<sup>TM</sup> SBDD used by Pfizer (PFE)
- Oral small molecule GLP-1 agonist (PFE-522) for Type 2 Diabetes Mellitus



- NxWave<sup>™</sup>SBDD used by Eli Lilly & Co (LLY)
- Multiple next-gen oral small molecule targets ongoing in discovery

#### Sleep disorders



- NxWave<sup>TM</sup> SBDD used by Centessa Pharmaceuticals (CNTA)
- Oral small molecule orexin 2 agonist (ORX750) for Narcolepsy ongoing in Phase 1

Perfectly positioned with the best partners in the hottest areas of medicine



27



## Financial summary for 1H FY2024

Another period of successful business execution with a new collaboration and development milestone events

- 01
- Revenue of ¥12,720m (\$84m) vs. ¥2,146m (\$16m) in the prior comparative period.

Revenue is higher primarily due to (i) the inclusion of PIVLAZ® sales in Japan (ii) a new 'option to license' transaction with Boehringer Ingelheim signed in March 2024 (iii) \$15m M4 long term tox milestone from Neurocrine (iv) \$4.6m milestone from Centessa and (v) \$10m milestone from AbbVie

- 02
- Core Operating Profit of ¥1,176m (\$8m) vs. Loss of ¥2,720m (\$20m) in the prior comparative period.

The change from Core Operating Loss to Profit is due to the increase in revenue per above, partially offset by an increase in costs, including additional core costs totaling  $\pm$  4,988m (\$33m) relating to the inclusion of NPJ/NPK\* in the scope of consolidation in July 2023.

- 03
- Operating Loss of ¥3,654m (\$24m) vs. ¥4,168m (\$31m) in the prior comparative period.

Amortization charge on intangible assets, PIVLAZ® inventory adjustment and integration costs were recorded as non-core costs

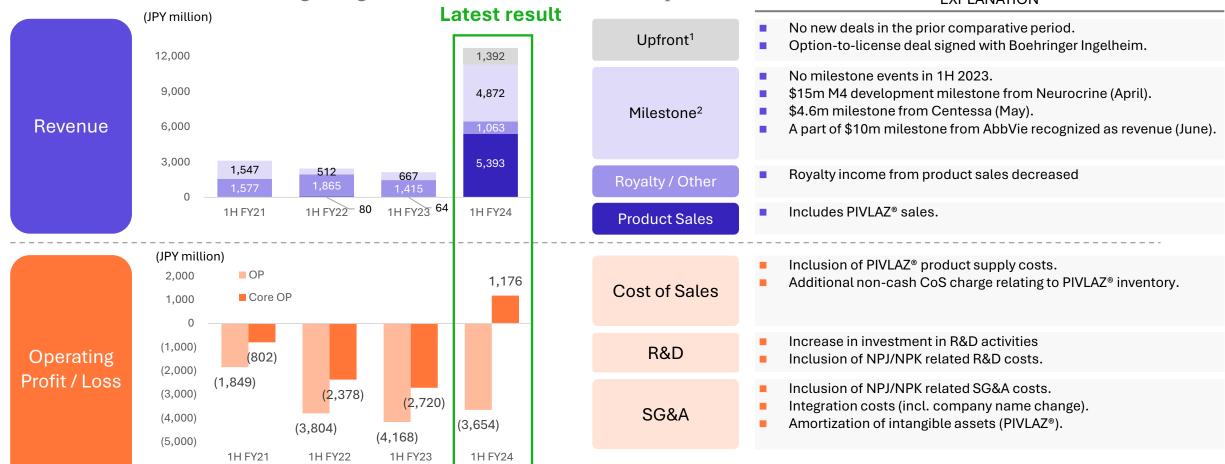
- 04
- **¥51bn (\$317m) cash balance** as at June 30, 2024.

We have maintained a sufficient cash balance and investment capacity.



# Key financial indicators

Quarterly revenues are substantially higher than prior comparative quarters due to the inclusion of PIVLAZ® product sales, revenue from the new Boehringer Ingelheim deal and several development milestones.



<sup>&</sup>lt;sup>1</sup> Upfront fee revenue recognised at deal inception



<sup>&</sup>lt;sup>2</sup> Milestone revenue recognised at milestone event + deferred revenue releases

#### Breakdown of 1H 2024 result

Impact of Non-cash/Non-recurring costs on full-year result is more significant in 2024 due to the inclusion of Idorsia businesses

(JPY million)	Legacy Business	NPJ / NPK*2	Consolidated P&L (Core)	Non-cash costs 🕕	Non-recurring Costs	Consolidated P&L (IFRS)						
Revenue	7,327	5,393	12,720			12,720						
Cost of Sales + SG&A	(3,039)	(4,290)	(7,329)		(1,619) AZ® inventory adjustment (563) Integration (1,323) Other	(11,514)						
R&D	(4,143)	(699)	(4,842)	D	(645)	(5,487)						
Other income	626	1	627			627						
OP/Core OP	771	405	Core OP 1,176			OP (3,654)						
Idorsia & Integration related Costs	A Additional CoS charge for current PIVLAZ® stock. This impact will continue until around 3Q 2024.  B Amortization of intangible assets (currently relates to PIVLAZ®). Annual charge to increase to c. JPY 1,800m per year from 2025.  C Integration costs including IT system integration and Corporate rebranding.											
Other	Amortization of other int		depreciation (e.g. labor	atory equipment), share-based	d payments and other rest	ructuring costs.						

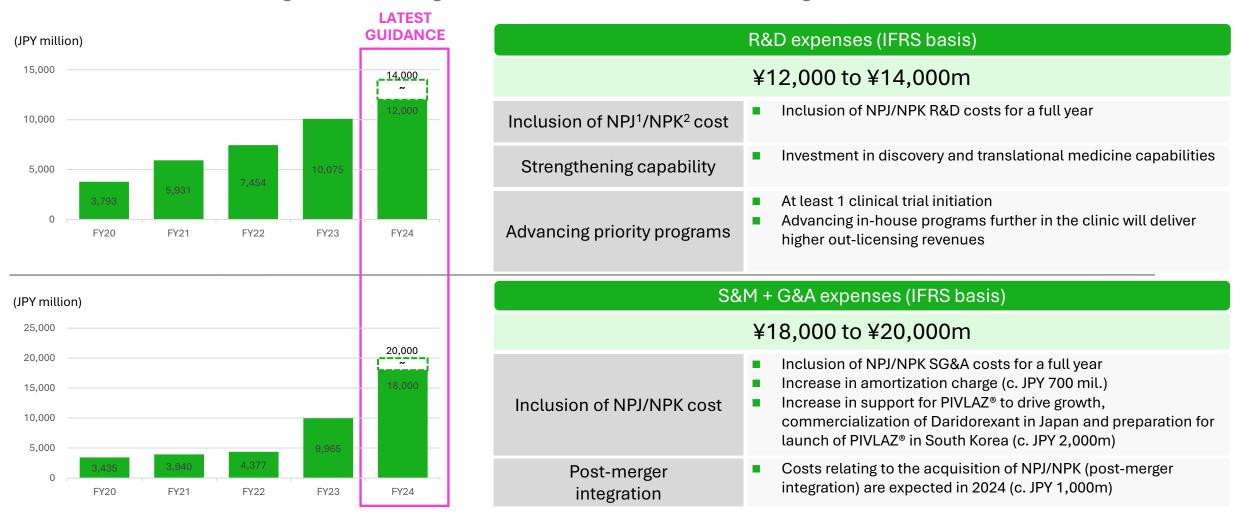
<sup>\*1 =</sup> Nxera Pharma Co. Ltd. (formerly Sosei Group Corporation) + Nxera Pharma UK Ltd (formerly Heptares Therapeutics Ltd.) + Sosei K.K



<sup>\*2 =</sup> Nxera Pharma Japan (formerly Idorsia Pharmaceuticals Japan) + Nxera Pharma Korea (formerly Idorsia Pharmaceuticals Korea)

## Full year cost guidance

Incremental investment designed to deliver greater returns over the medium to long term





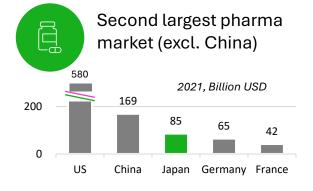


## Japan will serve as our base to expand across APAC markets

APAC is one of the most rapidly growing markets in the world



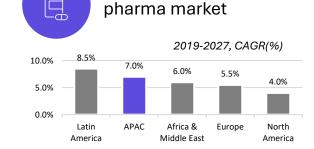
#### **Established market with strong volumes**



- (b) Universal health care system
- Relatively weak incumbents
- Attractive market for newcomers
- Large, ageing population
- Stable, pro-innovation market

#### APAC\*

#### One of the fastest growing pharma regions globally



Second highest growth

- Significant population growth
- Developing GDP/economies
- Attractive market for newcomers
- Large, ageing population
- Accessible via other regulatory approvals



Source: IQVIA Market Prognosis, Sep 2022; IQVIA Institute, Nov 2022.



<sup>\*</sup>APAC (ex-China) territory includes South Korea, Australia, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, New Zealand, Philippines, Singapore, Taiwan, Thailand and Vietnam

#### Utilizing Japan's high quality clinical data in development and marketing

Expanding into APAC by leveraging clinical innovations based on Japan's high-quality data

#### **Quality Clinical Development**









# Quality Regulatory Environment





Deep understanding of disease and treatment by Doctors/HCPs High quality data from clinical studies through to Post Marketing Surveillance High penetration in of patient population during commercial phase

Excellent access to Doctors/HCPs who evaluate novel drugs

Typically achieve strong patient uptake

Reduces drug loss/lag for Japan patients

Reasonable NHI
price for
reimbursement
supported by
high quality
clinical trial and
PMS data

Prolongation of patents via extended clinical development

Regional optimization makes clinical trials cheaper and faster to execute

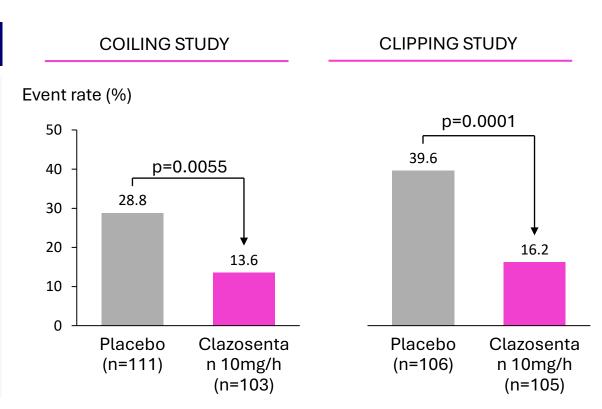


#### **PIVLAZ®**

Positive top-line results from Japan specific registration program

#### RESULTS OF TWO PIVOTAL PHASE 3 STUDIES IN JAPAN<sup>1</sup>

- PIVLAZ® (clazosentan) demonstrated significant reduction of vasospasm-related morbidity and all-cause mortality in patients following aSAH (primary endpoint)
- Clazosentan showed a numerical reduction of all-cause morbidity and mortality in both studies. The effect of clazosentan on this endpoint was significant (p<0.05) in a pre-planned pooled analysis
- Encouraging positive trends were observed on long-term measures of clinical outcome (GOSE and mRS) at week 12
- There were no unexpected safety findings
- Results published in the Journal of Neurosurgery: Endo H, et al. April 01, 2022; DOI: 10.3171/2022.2.JNS212914



PIVLAZ® significantly reduced vasospasm-related morbidity and all-cause morbidity and mortality in domestic Phase 3 trials. It is a highly impactful medicine used to prevent death and disability after aSAH.

<sup>&</sup>lt;sup>1</sup> Two prospective, multicenter, double-blind, randomized, placebo-controlled, pivotal Phase 3 studies assessing the efficacy and safety of clazosentan in reducing vasospasm-related morbidity and all-cause mortality events in adult Japanese patients post-aSAH, were conducted in parallel in 57 neuro surgical centers in Japan. Patients were randomized 1:1 to receive continuous infusion of either 10 mg/hr of clazosentan or placebo within 48 hours of the onset of aSAH for up to a cumulative maximum of 15 days after aSAH. Protocols were identical, each study enrolling 221 patients, except for the securing intervention, which was either endovascular coiling (JapicCTI-163369; the "coiling study") or surgical clipping (JapicCTI-163368; the "clipping study")

## Daridorexant – Global And Japan-Specific Program

Positive Japanese Phase 3 study; in-line with US study as published in The Lancet<sup>1</sup>

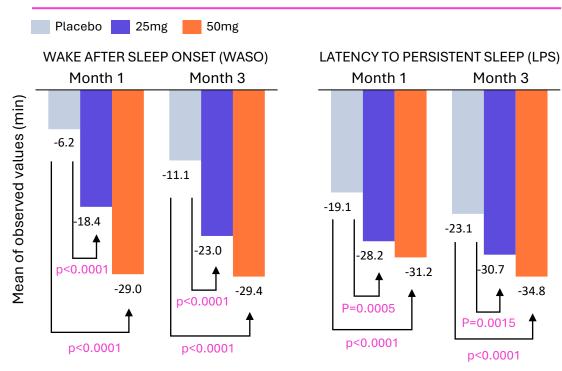


#### RESULTS OF GLOBAL AND JAPANESE PIVOTAL TRIALS<sup>1</sup>

- A Japanese Phase 3 trial<sup>1</sup> in 490 adult and elderly patients met both primary and secondary efficacy endpoints, with similar results to the global study published in Lancet Neurology
- Daridorexant significantly improved total sleep time (sTST, p<0.001 for 50 mg dose) and significantly improved latency to sleep onset (sLSO, p<0.001 for 50 mg) v placebo at 28 days
- The rate of adverse events was comparable between placebo and daridorexant
- In the global trial, daridorexant also demonstrated significant improvement in daytime sleepiness, which means patients reported feeling less mentally and physically tired, less sleepy and more energetic during the day
- Submission to the PMDA based on the global and Japanese data is planned for 2H 2023

 $^{1}$ The global study published in the Lancet Neurology is Mignot E, et al. Lancet Neurol 2022; 21: 125–39. The Japanese study (JRCT2031200452) was a randomized, double-blind, placebo-controlled, Phase 3 study to investigate the efficacy and safety of daridorexant. 490 randomized adult and elderly patients (30.1% ≥ 65 years) with insomnia disorder received receive 50 or 25 mg doses of daridorexant or placebo once daily for 28 days.

#### TWO PRIMARY ENDPOINTS FULLY MET IN GLOBAL PHASE 3 TRIAL



Daridorexant significantly improves wake after sleep onset, latency to persistent sleep, subjective total sleep time, and next-day sleepiness/daytime functioning (as measured by IDSIQ sleepiness domain) compared to placebo



#### Cenerimod and Lucerastat

Exclusive opt-in rights for two potentially exciting product opportunities

	Cenerimod
Indication	Systemic Lupus Erythematosus (SLE)
MoA	Selective S1P <sub>1</sub> receptor modulator
Stage	Global Ph3 studies ongoing
Number of Patients	~120,000 in Japan
Major therapies* (Japan)	<ul> <li>Total Market Size: c.300 Oku JPY</li> <li>Benlysta (GSK, 50~100 Oku JPY est. peak sales)</li> <li>Saphnelo (AZ, 50~100 Oku JPY est. peak sales)</li> <li>Plaquenil (Sanofi, ~50 Oku JPY)</li> </ul>
Value proposition	<ul> <li>Potential to be the first oral, disease-modifying SLE therapy that acts by reducing circulating T and B cells early in the immune cascade</li> <li>S1P<sub>1</sub> modulation is a well-established mechanism in other diseases, such as MS (Gilenya, Zeposia)</li> <li>Broadly-applicable mechanism means potential to expand to other autoimmune diseases</li> </ul>

	Lucerastat
Indication	Fabry Disease
MoA	Glucosylceramide synthase inhibitor
Stage	<ul> <li>Phase 3 (MODIFY) study primary endpoint (neuropathic pain) not met, however, renal function and echocardiography secondary endpoints were positive</li> <li>Open Label Extension (OLE) study ongoing</li> </ul>
Number of Patients	~1,000 in Japan
Major therapies* (Japan)	Total Market Size: c.300 Oku JPY  Replagal (ERT, Takeda, ~140 Oku JPY) Fabrazyme (ERT, Sanofi, ~100 Oku JPY) Galafold (PCT, Amicus, ~46 Oku JPY)
Value proposition	Potential to provide a broadly-applicable oral monotherapy option as an alternative to IV enzyme replacement therapy (Galafold is currently the only available oral therapy, and applicable to patients with certain rare mutations)

Small opt-in fee to license each program, with Nxera responsible for all development plans and future costs in the territory. If successfully commercialized, Nxera is obligated to pay tiered single digit royalties to Idorsia for each product.



## Exclusive Opt-in Rights And ROFN/ROFR<sup>1</sup>

Option to develop up to seven clinical programs for Japan and APAC (ex-China) from Idorsia

	Program	Mechanism of Action	Indication	Stage	Region
Exclusive	Cenerimod	S1P1 receptor modulator	Systemic lupus erythematosus	Phase 3	
Opt-in Right	Lucerastat	Glucosylceramide synthase inhibitor	Fabry disease	Phase 3	
	Selatogrel	P2Y12 antagonist	Suspected acute myocardial infarction	Phase 3*	
	ACT-1004-1239	ACKR3 / CXCR7 antagonist	Multiple sclerosis and other demyelinating diseases	Phase 2*	APAC (ex-China) <sup>2</sup>
ROFR /ROFN <sup>1</sup>	ACT-1014-6470	C5aR1 antagonist	Immune-mediated disorders	Phase 1*	
	IDOR-1117-2520	Undisclosed	Immune-mediated disorders	Phase 1*	
	ACT-777991	CXCR3 antagonist	Recent-onset Type 1 diabetes	Phase 1*	



<sup>&</sup>lt;sup>1</sup> ROFN/ROFR - Right of first negotiation / Right of first refusal

<sup>&</sup>lt;sup>2</sup> Territories include Japan, South Korea, Australia, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, New Zealand, Philippines, Singapore, Taiwan, Thailand and Vietnam

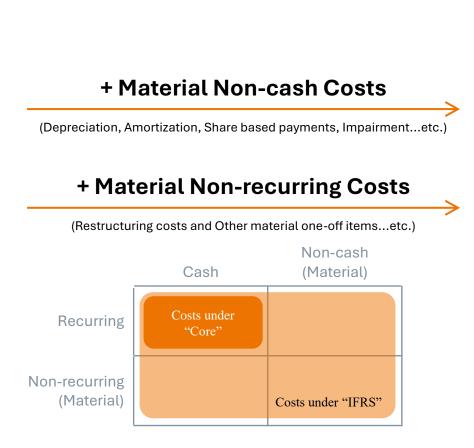
<sup>\*</sup> Global Phase

#### Core Operating Profit - Definition

Core Operating Profit/Loss – a financial indicator closer to the reality of our business

# "Core"

- Core Operating Profit/ Loss is a key financial indicator that highlights the underlying recurring cash generating capability of our business.
- Core Operating Profit/Loss is defined as IFRS Operating Profit + material Non-cash costs + material non-recurring costs
- Material Non-cash Costs include depreciation, amortization, share based payments and impairment.
- Material Non-recurring Costs include restructuring costs, M&A related professional fees and other material one-off items.



#### **Operating Profit**

## "IFRS"

 Financial results recorded and prepared in accordance with International Financial Reporting Standards (IFRS)



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## Estimation of potential market size

Multi-billion USD annual peak sales potential for our post-pre-clinical pipeline

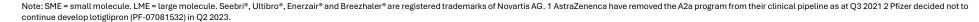
Category		Number of			
Category	Indication <sup>2</sup>	Patients	Market Size	Individual Products	Our Candidates
	Dementia	~55 million	\$7.3 billion (2010)	\$3.9 billion (2009/Aricept)	M1 agonist, M1/M4 agonist
	Schizophrenia	~20 million	\$20.7 billion (2011)	\$5.7 billion (2013/Abilify)	M4 agonist, M1/M4 agonist, GPR52 agonist
Neurological disorders	Substance use disorders	~10.4 million <sup>1</sup>		-	mGlu5 NAM
	Narcolepsy	~3 million	\$2.3 billion (2022)	\$1.7 billion (2020/Xyrem)	OX2 agonist
	Other	-			CGRP antagonist, GPR52 agonist
	Cancer	~42 million	\$178.9 billion (2022)	\$21.0 billion (2022/Keytruda)	A2a antagonist, EP4 antagonist, CXCR4 mAb
Immunological disorders	IBD	~10 million	\$23.5 billion (2022)	\$7.5 billion (2022/Humira)	CCR6 antagonist, GPR35 agonist, EP4 agonist
	Atopic Dermatitis	~13.3 million	\$8.1 billion <sup>3</sup> (2022)	\$7.0 billion (2022/Dupixent)	H4 antagonist, PAR2 mAb
Oth - "	T2DM/Obesity	~420 million	\$58.3 billion (2022)	\$8.8 billion (2022/Ozempic)	GLP1 agonist
Other	Anorexia	~10 million		-	MC4 antagonist
	Total		~\$299 billion/year	~\$56 billion/year	

Source (Number of patients): World Health Organization, Evaluate Pharma, The European Federation of Crohn's & Ulcerative Colitis Associations (EFCCA), Narcolepsy Network, Inc., GBD 2015 Disease and Injury Incidence and Prevalence Collaborators (October 2016). "Global, regional, and national incidence, prevalence, and years lived with disability for 310 diseases and injuries, 1990-2015: a systematic analysis for the Global Burden of Disease Study 2015". Lancet. 388 (10053): 1545–1602 <sup>1</sup> The number of patients with drug addiction

Source (Peak Sales): Sales of each indications are extracted form Evaluate Pharma's data of sales by disease and sales by individual products (as of 30 June. 2022). Nxera may target one segment in the market for specific diseases. Since there is no applicable indication category, the market size of "Eczema" is stated. Current market size for Atopic Dermatitis may be larger than stated above.

## Partnered pipeline (1/2)

Compound	Target / Mechanism of Action	Modality	Indication	Partner		Disc.	Disc. PCC	Disc. PCC Ph1	Disc. PCC Ph1 Ph2	Disc. PCC Ph1 Ph2 Ph3	Disc. PCC Ph1 Ph2 Ph3 App
artnered											
Seebri® Breezhaler®	LAMA	SME	COPD	<b>U</b> NOVARTIS	•						
Ultibro® Breezhaler®	LAMA+LABA	SME	COPD	<b>U</b> NOVARTIS							
Enerzair® Breezhaler®	LAMA+LABA+ICS	SME	Asthma	<b>U</b> NOVARTIS							
ORAVI®	Antifungal agent miconazole	SME	Oropharyngeal candidiasis	<b>Alsamitsu</b>							
Imaradenant <sup>1</sup>	Adenosine A2a ant. combo	SME	mCRPC	AstraZeneca			_				
NBI-1117568	Muscarinic M4 agonist	SME	Schizophrenia	S NEUROCRINE BIOSCIENCES							
NBI-1117569	Muscarinic M4 preferring agonist	SME	Neurology diseases	NEUROCRINE* BIOSCIENCES							
NBI-1117570	Muscarinic M1/M4 agonist	SME	Neurology diseases	NEUROCRINE BIOSCIENCES							_
NBI-1117567	Muscarinic M1 preferring agonist	SME	Neurology diseases	S NEUROCRINE' BIOSCIENCES				_		_	
PF-07081532 <sup>2</sup>	GLP-1 agonist	SME	T2DM/Obesity	<b>P</b> fizer				_	_		
PF-07054894	CCR6 antagonist	SME	Inflammatory bowel disease	<b>P</b> fizer				_	_		
PF-07258669	MC4 antagonist	SME	Malnutrition	<b>P</b> fizer					_		
PF-06954522	GLP-1 agonist	SME	Metabolic diseases	<b>P</b> fizer				_	_		
(Not disclosed)	CGRP antagonist	SME	Neurology diseases	<b>P</b> fizer			-	-	-		
(Not disclosed)	Multi target	SME/LME	Multiple indications	Genentech A Member of the Roche Group							
(Not disclosed)	Multi target	SME/LME	Gastrointestinal and other	Takeda							
(Not disclosed)	Multi target	SME	Neurology	abbvie							
(Not disclosed)	Multi target	SME	Diabetes/Metabolic	Lilly							





## Partnered pipeline (2/2)

Compound	Target / Mechanism of Action	Modality	Indication	Partner	Disc.	PCC	Ph1	Ph2	Ph3	Арр	Mkt
Co-development											
KY1051	CXCR4 mAb	mAb	Immuno-oncology	sanofi							
(Not disclosed)	PAR-2	Peptide	Inflammatory diseases	Pepti Dream							
(Not disclosed)	Al-Augmented Drug Discovery	SME	Neurology diseases	PHARMENABLE	_						
(Not disclosed)	Multi target AI-powered	SME/LME	Immune diseases	<u>v</u> erily	_						
(Not disclosed)	Gut-brain axis drug discovery	SME	Gastrointestinal disorders	KALLYOPE							
Co-owned compan	ies										
TMP301	mGlu5 NAM	SME	Substance use disorders	TEMPERO BIO"			_				
ORX750	OX2 agonist (Oral)	SME	Narcolepsy	CENTESSA OF THE			_				
ORX142	OX2 agonist (Oral)	SME	EDS in neurology	CENTESSA OF Therapeutics							



# In-house pipeline

Compound	Target / Mechanism	Modality	Indication	Originator	Disc.	PCC	Ph1	Ph2	Ph3	Арр	Mkt
In-house Programs											
PIVLAZ®	ETA antagonist	SME	Cerebral vasospasm	NX6La.'✓							
Daridorexant	Dual Orexin antagonist	SME	Insomnia	NX6LG ₩							
NXE'149	GPR52 agonist	SME	Neurology diseases	NXeLG.'⊶			_				
NXE'732	EP4 antagonist	SME	Immuno-oncology	NX6LG ₩			_				
NXE'744	EP4 agonist	SME	Inflammatory bowel disease	NX6LQ.'⊶			_				
NXE'477 <sup>2</sup>	GPR35 agonist	SME	Inflammatory bowel disease	NXeLG →							
(Not disclosed)	Muscarinic M1 agonist (JP)	SME	Neurology diseases	NX6LQ.'✓							
(Not disclosed) <sup>1</sup>	H4 antagonist	SME	Atopic Dermatitis	NX6LQ.₩							
(Not disclosed)	SARS CoV-2 Mpro	SME	Coronaviruses	NX6LQ.	_						
Multiple programs	Not disclosed	SME/LME	Neurology diseases	NX6LQ;✓	_						
Multiple programs	Not disclosed	SME/LME	GI and Inflammatory diseases	NX6LQ.	_						
Multiple programs	Not disclosed	SME/LME	Immunology diseases	NX6LQ¦✓	_						
In-house Programs (No	longer internally funded. Targetin	g academic / i	ndustrial partnership)								
NXE'310	SSTR5 agonist	Peptide	Hypoglycaemic disorders	ихега ~							
NXE'097	GLP-1 antagonist	Peptide	Hypoglycaemic disorders	NXeLG '✓							
NXE'023	Dual GLP-2/GLP-1 agonist	Peptide	Intestinal failure/NASH	NXeLG '✓							
(Not disclosed)	Apelin agonist	Peptide	Pulmonary Arterial Hypertension	NXera ∴							
NXE'641	Dual orexin antagonist	SME	Insomnia and sleep disorders	NXELQ.'▼							
(Not disclosed)	PAR-2 mAb	mAb	Atopic Dermatitis/Pain	NX6LQ¦✓							





# Glossary

	Basic Terminology/Technology		
GPCR	G Protein-Coupled Receptor	There are about 800 types of GPCRs in the human body. While 400 of them are known to be potential drug targets, about 300 of them are not yet drugged	
StaR	Stabilized Receptor	Nxera' proprietary technology to stabilize a GPCR by engineering a small number of single point mutations outside of the ligand-binding site. It enables to identify the structure of GPCRs to be used for SBDD drug discovery as well as antibody drug discovery as antigens	
SBDD	Structure-Based Drug Design	A method to design drugs on a computer base based on the analysis of the three-dimensional structure of the drug target (e.g., protein receptor)	
TPD	Targeted Protein Degradation	Drugs that promote the degradation of target proteins (e.g., receptors) in cells and aim for therapeutic effects by reducing disease-causing proteins	
PAM	Positive Allosteric Modulator	A regulator that binds to unusual active sites (allosteric sites) on the receptor to increase the affinity and effect of the agonist	
NAM	Negative Allosteric Modulator	A regulator that binds to an unusual active site on the receptor (allosteric site) and reduces the affinity and effectiveness of the agonist	
Ag	Agonist	A therapeutic drug that binds to a receptor and activates an intracellular signaling system similar to biological substances	
Ant	Antagonist	A therapeutic drug that suppresses biological reactions by binding to receptors and preventing them from binding to biological substances	
PK	Pharmacokinetics	Research and testing on the relationship between drug dosage and blood concentration. Mainly describes the rate process of ADME	
PD	Pharmacodynamics	Research and testing on the relationship between drug concentration and pharmacological effects	
ADME	Absorption, Distribution, Metabolism and Excretion	A series of process in the absorption of drugs into the body, distribution within the body, metabolism in the liver and other organs, and excretion in the kidneys and other organs	
POM	Proof of Mechanism	Proof of mechanism of action, mainly through biomarkers. It can suggest the possibility of efficacy in fewer cases than POC	
POC	Proof of Concept	Proof of a therapeutic concept, primarily through clinical efficacy and safety	
Ach	Acetylcholine	A neurotransmitter released from the peripheral parasympathetic and motor nerves to transmit nerve stimuli	
IND	Investigational New Drug	Information packages for development candidates to be submitted to the U.S. Food and Drug Administration (FDA) at the time of initiation of clinical trials	
Ph1	Phase1	A study in humans. The main purpose is to confirm the safety of the drug candidate mainly by healthy volunteers.	
Ph2	Phase2	A study in humans. The main purpose is to confirm the efficacy of the drug candidates on a small scale (however, the number of patients varies greatly depending on the disease)	
Ph3	Phase3	A study in humans. The main purpose is to determine the efficacy of the drug candidates on a large scale (however, the number of patients varies greatly depending on the disease)	
NDA	New Drug Application	An application to the U.S. Food and Drug Administration (FDA) for approval to market a new drug	

Disease/Drug		
LAMA	Long Acting Muscarinic Antagonist	An inhalant that dilates bronchial tubes and improves respiratory function by inhibiting the action of acetylcholine receptors (M3), which increase parasympathetic nerves.
LABA	Long Acting Beta2-Agonist	An inhalant that improves respiratory function by stimulating sympathetic beta2 receptors to dilate the bronchi.
ICS	Inhaled Corticosteroid	An inhalant that suppresses airway inflammation to prevent coughing attacks and other symptoms caused by asthma, also promotes the action of beta 2 stimulants and improve airway hyperresponsiveness.
mCRPC	Metastatic Castration–Resistant Prostate Cancer	Cancer that has spread (metastasized) beyond your prostate gland and for which hormone therapy is no longer effective in stopping or slowing the disease.
COPD	Chronic Obstructive Pulmonary Disease	A group of diseases that causes damage to the bronchi and lung due to smoking or inhalation of toxic substances, resulting in breathing problems.
AD	Alzheimer's Disease	Alzheimer's disease is a progressive neurologic disorder that causes the brain to shrink (atrophy) and brain cells to die, the most common cause of dementia.
DLB	Dementia with Lewy Bodies	Protein deposits, called Lewy bodies, develop in nerve cells in the brain regions involved in thinking, memory and movement (motor control), the second most common type of dementia.







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