

# Data science & AI



Break-out session

7 MARCH

Thomas Senderovitz SVP Data Science

**Lars Fogh Iversen** SVP R&ED Digital Science & Innovation

#### Forward-looking statements

Novo Nordisk's reports filed with or furnished to the US Securities and Exchange Commission (SEC), including the statutory Annual Report 2023 and Form 20-F, which both were filed with the SEC in January 2024 in continuation of the publication of the Annual Report 2023, this presentation, and written information released, or oral statements made, to the public in the future by or on behalf of Novo Nordisk, may contain forward-looking statements. Words such as 'believe', 'expect, 'may', 'will', 'plan', 'strategy', 'prospect', 'foresee', 'estimate', 'project', 'anticipate', 'can', 'intend', 'target' and other words and terms of similar meaning in connection with any discussion of future operating or financial performance identify forward-looking statements. Examples of such forward-looking statements include, but are not limited to:

- Statements of targets, plans, objectives or goals for future operations, including those related to Novo Nordisk's products, product research, product development, product introductions and product approvals as well as cooperation in relation thereto,
- Statements containing projections of or targets for revenues, costs, income (or loss), earnings per share, capital expenditures, dividends, capital structure, net financials and other financial measures,
- · Statements regarding future economic performance, future actions and outcome of contingencies such as legal proceedings, and
- Statements regarding the assumptions underlying or relating to such statements.

These statements are based on current plans, estimates and projections. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific. Novo Nordisk cautions that a number of important factors, including those described in this presentation, could cause actual results to differ materially from those contemplated in any forward-looking statements.

Factors that may affect future results include, but are not limited to, global as well as local political and economic conditions, such as interest rate and currency exchange rate fluctuations, delay or failure of projects related to research and/or development, unplanned loss of patents, interruptions of supplies and production, including as a result of interruptions or delays affecting supply chains on which Novo Nordisk relies, shortages of supplies, including energy supplies, product recalls, unexpected contract breaches or terminations, government- mandated or market-driven price decreases for Novo Nordisk's products, introduction of competing products, reliance on information technology including the risk of cybersecurity breaches, Novo Nordisk's ability to successfully market current and new products, exposure to product liability and legal proceedings and investigations, changes in governmental laws and related interpretation thereof, including on reimbursement, intellectual property protection and regulatory controls on testing, approval, manufacturing and marketing, perceived or actual failure to adhere to ethical marketing practices, investments in and divestitures of domestic and foreign companies, unexpected growth in costs and expenses, strikes and other labour market disputes, failure to recruit and retain the right employees, failure to maintain a culture of compliance, epidemics, pandemics or other public health crises, the effects of domestic or international crises, civil unrest, war or other conflict and factors related to the foregoing matters and other factors not specifically identified herein.

For an overview of some, but not all, of the risks that could adversely affect Novo Nordisk's results or the accuracy of forward-looking statements in the Annual Report 2023, reference is made to the overview of risk factors in 'Risk Management' of the Annual Report 2023.

Unless required by law, Novo Nordisk has no duty and undertakes no obligation to update or revise any forward-looking statement after the distribution of the Annual Report 2023, whether as a result of new information, future events, or otherwise.

#### Important drug information

Victoza<sup>®</sup> and Ozempic<sup>®</sup> are approved for the management of type 2 diabetes only Saxenda<sup>®</sup> and Wegovy<sup>®</sup> are approved for the treatment of obesity only



#### Novo Nordisk has a foundation to leverage data and AI





### AI brings innovation across the Novo Nordisk value chain

Resear	rch & early elopment	£ <sup>7</sup> 3	Clinical development	te	Pi	roduct supply	C	Ś	Commercial	
Target discovery		Identifying sub populations from RCTs		AI-driven production optimisation			Resource allocation and forecasting			
Knowledge mining		Optimising trial design & site selection			Deep Learning in product		Patient journey predictions			
Robotics to decrease design cycles		Fore trial	Forecasting in clinical trials		inspections					
Predictive pharmacology		Pattern recognition in event adjudication			AI-augmented process analytics			Targeted marketing material		
<b>ک</b> Support	Novo Nordisk ChatGPT & GenAI tools to increase productivity									
	AI-assisted Job advert generator									
	AI career coach personalising learning recommendations									



#### Novo Nordisk utilises best-in-class clinical data within the cardiometabolic space







#### FounData makes billions of clinical data points accessible across the entire value chain

Unlea	shing the power of data for secondary use
FounData	<b>A seamless infrastructure</b> where all data from completed clinical trials are pooled and prepared for insights-generation
Q	<b>Easy to Find</b> available data from clinical trials including real- world data, omics and imaging
	<b>Easy to access</b> clinical trial data in a seamless yet controlled way
Ş	<b>Easy to connect</b> multiple data types and sources across the organisation
$\bigcirc$	<b>Easy to solve</b> for advanced clinical data insights





Data science & AI

7

## NovoScribe platform enables automated authoring of structured documents, reducing time to regulatory submissions

Potential to expand NovoScribe to full Automated authoring Value generated today submission package automation Automation of all documents in NovoScribe is an **automated** regulatory submission packages ~70% faster authoring platform powered document production by AI All submission documents ready one day after data becomes available Creates documents in an efficient and accurate way, Augmented production of based on defined content rules educational and scientific Automation across the value chain communication First-human dose trial documents Developed in-house by Novo Clinical study reports Nordisk Drug stability reports HCP education material



### Pioneering methodology in collaboration with Microsoft outperforms best clinical standards in patient risk prediction





## Combining AI with high-throughput experimentation yields first-ever new compound class for amylin selection

**Inputs and process** 





**First ever** calcitonin-based amylin selective compound identified

**Realised value** 



**<sup>10</sup>x** higher amylin selectivity



Using 50-75% fewer design rounds



### Bi-specific mini protein identified with animal-free evaluation and sets new standard for target discovery





### Partnerships and collaborations play an important part in accelerating AI capabilities





	Next steps					
Γ	Near-term					
-	<b>Exploring investments in larger alliances</b> to co-create and design solutions tailored to Novo Nordisk					
Γ	Mid-term					
	<b>Investing large-scale in high</b> <b>performance computing hardware</b> to ensure sufficient computing power for AI ambitions					
Γ	Long-term					
	<b>Expanding quantum computing</b> <b>community</b> into exploration of potential					

use cases

CMD24 CAPITAL MARKETS DAY

### **Closing remarks**

41

Novo Nordisk leverages data and AI across the value chain

Access to clinical data drives AI based innovation in Research & Development

External partnerships and collaborations to continue playing an important role in reaching AI ambitions