Building a healthier tomorrow

The global prevalence of serious chronic diseases is growing by the day, impacting millions

of lives and placing a heavy burden on overstretched healthcare systems. This has created

unprecedented demand for our life-changing GLP-1-based medicines. Over the past four

years, we have more than quadrupled the number of people reached with these treatments

and increased our volume market share in the GLP-1 segment to 63%. In 2024, we served

more than 45.2 million people living with serious chronic diseases, while our global sales

and operating profit both grew by 26% at constant exchange rates.

As we strive to keep pace with the growing demand for our medicines, our production

capacity has been stretched. In response, we have continued to invest heavily in scaling up

our manufacturing capabilities with capital expenditure and acquisitions amounting to more

than DKK 129 billion in 2024. The acquisition of three fill-finish sites formerly run by contract

and development manufacturer Catalent Inc., along with significant expansions of our existing

production facilities in Denmark, France, Brazil, China and the US, are testament to our

commitment to improving supply stability.

In order to meet increasing demand and ensure a stable supply of our medicines, we are also

taking steps to consolidate our product portfolio by gradually phasing out some of our older

insulin products. This will create much-needed space in our global manufacturing network as

we seek to reach millions more people with our medicines over the next decade. At the same

time, we strive not to leave existing patients without alternative treatment options, either from

Novo Nordisk or other companies, and we remain committed to working closely with local

health authorities and the medical community to enable access to affordable care.

Our belief that health is a fundamental human right drives our extensive partnership

programmes and access initiatives. In times of geopolitical instability, safeguarding access to

care for those in conflict zones and underserved areas is paramount. Our partnerships with

humanitarian organisations such as the Danish Red Cross play a crucial role in this effort,

demonstrating our dedication to making a difference where it is needed most.

2024 was a year of significant growth for Novo Nordisk, characterised by continued innovation, capacity expansions and strong

commercial execution. As we reflect on our progress, we also recognise the magnitude of the challenges that lie ahead.

Chair of the Board

of Directors,

Helge Lund (left) and

President and CEO,

Lars Fruergaard

Jørgensen (right).

Moreover, we are increasing our investment in preventive health measures through initiatives like

Cities for Better Health – a pioneering urban health partnership now active in 51 cities worldwide

– and our collaboration with UNICEF to prevent childhood obesity. These efforts aim to address

the root causes of serious chronic diseases, thereby reducing the global health burden and

fostering a healthier future. Our Transformational Prevention Unit complements our partnership-

driven approach, looking to develop scalable, science-based solutions that can predict and

pre-empt obesity and its consequences.

The same scientific rigour is being applied across our R&D activities, which are driving

transformative change across multiple therapy areas. Rooted in our deep understanding of

proteins and peptides and fuelled by research partnerships, AI-driven drug discovery and the

acquisition of new technology platforms, we are striving to accelerate the discovery of new

targets and optimise our clinical trials to the benefit of people living with serious chronic diseases.

Innovation remains our core contribution to society and the driving force behind our continued

growth. The past year has seen us add to the growing body of clinical evidence supporting the

broad cardiometabolic and societal benefits of semaglutide – the molecule at the heart of our

flagship GLP-1-based medicines Ozempic®

, Wegovy® and Rybelsus® – and we are confident that

our pipeline has the potential to add even more value.

In obesity, we completed the first phase 3 trial of CagriSema, currently in development for the

treatment of obesity or overweight and type 2 diabetes. After 68 weeks, if all people adhered to

treatment, CagriSema demonstrated a statistically significant weight loss of 22.7% vs 2.3% with

placebo alone. This is among the highest weight reductions yet seen in a phase 3a programme

for a GLP-1 combination therapy. We intend to further explore the weight loss potential of

CagriSema in an additional study.

Earlier in our obesity pipeline, topline results from a phase 1b/2a trial of subcutaneous amycretin

have demonstrated the weight lowering potential of the unimolecular GLP-1 and amylin receptor

agonist, supporting previous data seen with the oral formulation. When evaluating the effects of

treatment if all people adhered to treatment, those receiving a 20 mg dose of amycretin experienced

an estimated average weight loss of 22.0% over 36 weeks compared to 2% weight gain with placebo.

In diabetes, the first launches of Awiqli® – the world’s first once-weekly basal insulin – exemplify

our enduring commitment to innovation in this space more than 100 years after we first started

producing insulin. Moreover, our dedication to addressing unmet needs within rare disease is

exemplified by the pending regulatory submission of Mim8 for the treatment of haemophilia A.

The growth of our business has inevitably led to an increase in our environmental footprint, and

we are stepping up efforts to mitigate this impact. We have introduced comprehensive, updated

roadmaps targeting reductions in our emissions, plastic footprint and impact on nature and

biodiversity. Achieving these ambitions will be no small feat given the increasing global demand for

our medicines, but we are rising to the challenge. Our roadmaps include measures to decouple our

environmental impact from our continued growth by incorporating the use of low-carbon materials

across our value chain, supporting our suppliers through a transition to renewable energy and

facilitating a switch from disposable to reusable injection devices for our medicines wherever possible.

Our operating environment is also becoming more complex, shaped by geopolitical tensions,

global conflicts and technological advancements. Our unique ownership structure, underpinned

by the Novo Nordisk Foundation as controlling shareholder, provides us with the stability we need

to navigate these uncertainties. This model supports our sustainable growth by allowing us to take

a long-term view on our investments and strategies; crucial in a volatile world where short-term

market pressures can often lead to reactive decision-making.

We are similarly mindful of the importance of sustainably scaling our organisation. We are now

77,349 colleagues worldwide – an increase of 20% compared to 2023 that reflects our commitment

to scaling up in the face of growing demand. Our focus is on ensuring new hires receive the

support and resources they need to fully integrate into our global workforce and connect with the

Novo Nordisk Way – the core guiding principles that underpin everything we do. This approach

also safeguards our focus on diversity and inclusion, fostering an environment where every

employee feels valued and included.

As we look forward to 2025 and beyond, we are optimistic about the opportunities that lie ahead

as we strive to serve millions more people with serious chronic diseases. However, we are also

mindful of the challenges inherent to our growth and the need to balance short-term costs with

long-term societal value.

Our purpose remains clear: driving change to defeat serious chronic diseases. By staying true

to our purpose and values, we are confident in our ability to navigate the complexities of the

ever-evolving global healthcare landscape and to continue making a meaningful difference in

the lives of millions of people worldwide.

We would like to extend our gratitude to all Novo Nordisk colleagues worldwide for their hard

work and dedication at a time of unprecedented demand for our life-changing medicines, and

to our shareholders for their continued support of our company.

##PARTTWO##

PURPOSE AND SUSTAINABILITY

Driving change in human

and planetary health

As the global prevalence of serious chronic diseases continues to increase, overburdened healthcare

systems face growing pressure to deliver cost-effective, quality care, while millions of people lack

access to essential treatments. In 2024, we reached more than 45.2 million people with our life-

changing medicines – an increase of 3.6 million compared to 2023. As our business grows, so does

our social responsibility to support vulnerable populations, and this year we were able to reach 8.4

million vulnerable people living with diabetes – a slight decrease compared to 2023. With the aim

of addressing growing health inequities, we are broadening our access and affordability initiatives,

including programmes like Changing Diabetes® in Children. Since its inception in 2009, this

programme has provided care and support to more than 64,000 young people – keeping us on

track to achieve our ambition of reaching a total of 100,000 children by 2030.

Prevention is similarly critical to reducing the global health burden, and we are investing more in

preventive health measures than ever before. Our GLP-1-based medicines hold the potential to deliver

substantial long-term healthcare savings by improving patient outcomes and reducing the need for

more intensive treatments. Meanwhile, the 2024 expansion of our pioneering urban health initiative,

Cities for Better Health, showcases our growing ambition to drive change outside the clinic. Building

upon a decade of insights, this expanded partnership programme now includes a Childhood Obesity

Prevention Initiative (COPI) aiming to deliver measurable, community-driven interventions that

promote healthy eating and physical activity among children living in underprivileged urban

communities. Initially launching in six cities across five continents, COPI complements our existing

work with UNICEF to prevent this escalating problem.

We also prioritise environmental sustainability – including nature and biodiversity – across our value

chain and have a clear focus on decoupling our environmental impact from our growth as we progress

towards our net zero 2045 emissions target. This will be a significant challenge with emissions continuing

to rise as our business expands to keep pace with demand, but we are determined to step up to the task.

To this end, we have updated roadmaps targeting reductions in our emissions, plastic footprint and

impact on nature and biodiversity, each laying out a clear path towards creating a more sustainable

business. Key focus areas include supporting our suppliers through a transition to renewable energy,

switching to reusable injection devices for our medicines wherever possible and exploring the use of

low-impact glucose alternatives in our production processes.

Despite the scale of the challenges ahead, our commitment to improving human and planetary

health remains unwavering. We are determined to do more with less – reaching more vulnerable

people with our life-saving medicines and doing more to curb the rising prevalence of serious

chronic diseases, all while minimising our environmental impact

Driving change in chronic

disease prevention

Tackling growing

health disparities

Cities reached via our Cities for

Better Health programme

Children playing in Campinas, Brazil,

one of the launch cities of COPI.

Bilguissa Balde was one of the first people

supported by CDiC. Today, she guides and

inspires younger children also living with

type 1 diabetes in Guinea.

Millions currently lack access to diabetes care due to high costs

or unavailability, often with devastating consequences.

In 2024, we reached 8.4 million vulnerable people with diabetes,

a 5% decrease from last year, mainly due to reduced tender sales of

human insulins. Despite this, our commitment to addressing health

inequity remains unwavering. We are intensifying efforts to make

care more affordable for vulnerable populations, improve supply

chains and build capacity for diagnosis and disease management.

Key initiatives include Changing Diabetes® in Children (CDiC),

which has reached over 64,000 children with type 1 diabetes

in low- and middle-income countries since 2009. Support can

include free life-saving medicine, blood glucose monitoring

equipment and medical supplies for young people under 25.

In the past year, the programme integrated new digital elements

to support access to care in vulnerable settings. This includes the

‘Diabetes Besties’ video series, which helps bridge the gap in

patient education for children living with diabetes.

Other initiatives include Partnering for Change, a collaboration

with the Danish Red Cross to address health issues in

humanitarian crises, and iCARE, an integrated business model

aimed at breaking down barriers to diabetes care in Middle Africa

and Indonesia. iCARE provides affordable insulin, trains healthcare

providers and empowers people with diabetes to improve their

health and quality of life.

13

Annual review / Strategic Aspirations / Purpose and sustainability

1. The 2023 figure has been restated; read more about this and our emissions targets on page 57.

Our commitment to delivering life-changing medicines to

millions of people worldwide compels us to responsibly manage

our use of water, energy and resources.

We have made significant progress in reducing our scope 1 and

2 emissions since 2019. However, our scope 3 emissions, which

comprise about 96% of our total emissions, continue to rise as

we grow to meet increasing demand for our medicines. To achieve

net zero emissions by 2045, we have a roadmap to reduce scope 3

emissions by 33% by 2033, using 2024 as the baseline. This

target – which covers nearly 70% of our scope 3 emissions in

accordance with Science Based Targets initiative (SBTi) provisions

– is aligned with climate science and has been submitted to the

SBTi for validation.

Key decarbonisation measures include switching to low-carbon

materials and feedstock across our production network, shifting

our distribution model to low-emissions transportation and

supporting our suppliers in transitioning to renewable energy. To

date, more than 1,800 suppliers have already committed to make

the switch. At the same time, we acknowledge that these measures

will not be enough to meet our target, and will therefore investigate

additional levers – including new technologies – to close this gap.

Additionally, we have sharpened our focus on the impact of our

operations on nature and biodiversity, setting an ambition to halt

nature loss across our value chain by 2033 and achieving nature-

positive status by 2045.

Decoupling environmental

impact from our growth

Reducing our

plastic footprint

Around the world, millions of people with serious chronic

diseases depend on medical devices. Once used, many of

these devices end up in landfills or are incinerated, wasting

tonnes of valuable materials that could be recycled. As the

number of people who rely on our medicines increases, so

does our obligation to help address the related environmental

issues – including plastic waste.

To this end, we are targeting a 30% reduction in the amount of

plastic used per patient by 2033, underpinned by the adoption

of a reduce, change and avoid approach across our diabetes

and obesity portfolio. We aim to achieve this by transitioning

from disposable to reuseable devices and by developing new

medicines designed to be administered less frequently.

In addition, we are scaling up our ReMed™ device take-back

scheme to avoid plastic waste ending up in landfills. ReMed™

is built on the success of our local take-back pilot programmes,

enabling pen users to return their used devices to give the

plastic a new life. Four years on, and more than four million

returned pens since the launch of the first pilot, the scheme is

now active in seven key markets – including Denmark, where

we collaborate with other healthcare companies to offer a

unique industry-wide solution. The same collaborative model

will be piloted in the UK in 2025.

“We are targeting a 30%

reduction in the amount

of plastic used per patient

by 2033”

0.4

0.3

0.2

0.1

0

Plastic footprint

Plastic footprint per patient, kg/patient/year

2024 2033

Plastic Target

0.35

0.25

0

20242023

2,500

2,000

1,500

1,000

500

0

20452033

Scope 1, 2 and 3 emissions1

CO2e emissions (1,000 tonnes)

Scope 1:

Direct emissions from

owned/controlled sources

Scope 2:

Indirect emissions from

purchased energy

Scope 3:

Indirect emissions in the

value chain

Scope for 2033 target

Target

1,000

+23%

-33%

-30%

1,836

2,261

14

Annual review / Strategic Aspirations / Purpose and sustainability

We create value by

having a patient-centred

business approach.

We set ambitious goals

and are empowered to

achieve them.

We are accountable

for our financial,

environmental and

social performance.

We are curious and

innovate for the benefit

of patients and society

at large.

We build and maintain

good relations with

our stakeholders.

We value diversity

and treat everyone

with respect.

We focus on

performance and

personal development.

We have a healthy and

engaging working

environment.

We strive for agility

and simplicity in

everything we do.

We never compromise

on quality and ethics.

The extraordinary surge in demand for our life-changing medicines in recent years has led to

a substantial increase in the number of new hires as we expand our workforce to keep pace.

Last year alone, we added 13,030 employees across our global organisation, which now

comprises 77,349 colleagues worldwide.

Our focus is on sustainably scaling our organisation; ensuring it is run efficiently, our priorities

remain clear and our resources are used optimally. This approach helps safeguard the

wellbeing of our expanding workforce and bolsters our reputation as a highly engaged and

supportive place to work. Last year, we recorded an overall engagement score of 85% in our

annual company survey, which saw a record 90% of all employees participate.

To support the integration of our new colleagues, we aim to equip all new hires with the

support and resources they need to onboard and connect with our strong company culture

and purpose, which remain essential to our success.

By dedicating additional time and resources to this integration process, we also help to foster

an environment that values diverse perspectives and ensures every employee feels included.

Moreover, it is crucial that we maintain a sustainable work-life balance for all our employees.

As our business grows, we are carefully monitoring workplace stress levels, targeting a 10%

annual reduction in the number of employees reporting symptoms of stress. Although we did

not meet this target in 2024, when overall stress levels remained unchanged year-on-year at

13.8%, we will continue to implement new measures to address symptoms of stress at the

earliest opportunity.

The foundation of our commitment to supporting the wellbeing and development of our

employees is the Novo Nordisk Way; a set of guiding principles constituting the core of our

identity and operations. It bridges our company’s past, present and future, steering our

strategy, decisions and behaviours. By familiarising new employees with the 10 Essentials that

direct the decisions and actions of every Novo Nordisk colleague, we uphold our dedication to

the company’s core values of openness, accountability and respect. We employ a distinctive,

systematic approach known as facilitation – value audits – to ensure that all employees adhere

to these Essentials.

Sustainably scaling

our organisation

The Novo Nordisk Way Essentials

1

2

3

4

5

8

9

10

7

6

“Our focus is on sustainably scaling our organisation; ensuring it is run

efficiently, our priorities remain clear and our resources are used optimally”

15

Annual review / Strategic Aspirations / Purpose and sustainability

Governance structure

The shareholders of Novo Nordisk exercise their rights at the Annual General Meeting, which

is the supreme governing body of the company. The general meeting, inter alia, adopts the

company’s Articles of Association, approves the Annual Report and elects the Board of Directors.

Any shareholder has the right to raise questions at general meetings. Resolutions can generally

be passed by a simple majority. However, resolutions to amend the Articles of Association require

two-thirds of the votes cast and capital represented, unless other adoption requirements are

imposed by the Danish Companies Act.

Novo Nordisk has a two-tier management structure consisting of the Board of Directors and

Executive Management. The governance structure and rules of Novo Nordisk are further

described in our Articles of Association and our Corporate Governance Report, both available

at: www.novonordisk.com/about/corporate-governance.html.

Foundation ownership

Novo Holdings A/S, a Danish company wholly owned by the Novo Nordisk Foundation, holds

the majority of votes at Novo Nordisk A/S’ general meetings. The combination of foundation

ownership and stock listing enables Novo Nordisk to embark on long-term sustainable

strategies while maintaining short-term transparency on performance. Our foundation

ownership supports the overarching imperative to be both commercially successful and

responsive to the wider needs of society.

The Novo Nordisk Foundation has two objectives: to provide a stable basis for the commercial

and research activities of Novo Nordisk, Novonesis and additional companies in Novo Holdings’

investment portfolio; and to support scientific, humanitarian and social causes. Please refer to

the section on value creation on page 9. For more information about the ownership structure of

Novo Nordisk, see page 36.

Corporate governance reporting

Novo Nordisk reports in accordance with the Danish Corporate Governance Recommendations,

which are implemented by Nasdaq Copenhagen in the Nordic Main Market Rulebook for Issuer

of Shares, as well as the Corporate Governance Standards of the New York Stock Exchange

applicable to foreign private issuers.

Novo Nordisk complies with the Danish Corporate Governance Recommendations as we account

for which recommendations we comply with or deviate from and explain our chosen approach.

You can find further information about our corporate governance practices and statement on our

approach to each of the Danish Corporate Governance Recommendations as well as the Corporate

Governance Standards of the New York Stock Exchange in our Corporate Governance Report,

available at: www.novonordisk.com/about/corporate-governance.html.

Remuneration

Executive remuneration is linked to financial performance as well as non-financial performance

(e.g. innovation and sustainability). Novo Nordisk has prepared a separate Remuneration Report

describing the remuneration awarded or due during 2024 to the Board of Directors and Executive

Management members registered with the Danish Business Authority. The Remuneration Report

is submitted to the Annual General Meeting for an advisory vote. The Remuneration Policy and the

Remuneration Report are available at: www.novonordisk.com/about/corporate-governance.html.

Disclosure regarding change of control provisions

It is disclosed that Novo Nordisk does not have any material contracts that take effect, alter or

terminate upon a change of control of Novo Nordisk following implementation of a takeover bid.

In the event of termination – whether by Novo Nordisk or by the individual – due to a merger,

acquisition or takeover of Novo Nordisk, members of Executive Management registered with the

Danish Business Authority are, in addition to the notice period, entitled to a severance payment of

24 months’ base salary plus pension contribution.

Ethics and compliance

In Novo Nordisk, we have an ethics and compliance programme which comprises of a code of

conduct (OneCode), requirements (The Ethics Navigator), processes and awareness and capability

building as stipulated in the seven elements of an effective compliance programme. Data privacy is

a key component in our ethical principles, ensuring guardrails are in place to manage and mitigate

risks, thus safeguarding our patients and society at large. We have also adopted a set of principles

for data and artificial intelligence (AI) ethics to support ethical decision-making. We have initiated

building our AI Ethics & Compliance framework, incorporating elements such as principles,

requirements and risk assessments, as well as building AI literacy training and capabilities.

You can read more about these principles, in accordance with the Danish Financial Statements

Act Section 99d, at: www.novonordisk.com/data-privacy-and-user-rights/data-ethics.html.

Corporate governance

16

Annual review / Strategic Aspirations / Purpose and sustainability

INNOVATION AND THERAPEUTIC FOCUS Our evolution from a diabetes-centric company to an organisation with a broader focus on

metabolic and cardiovascular health requires even sharper prioritisation across our portfolio.

To do this, we have established the role, purpose and ambition level for each therapy area based

on future opportunities, while at the same time assessing our competitive strengths and the

capabilities required to unlock these opportunities.

The result is a clear set of priorities that guide our R&D and external business development

activities across therapy areas. These include significant investments in novel technological

platforms as well as strategic collaborations and acquisitions that expand our research horizons

and ensure we remain at the forefront of therapeutic innovation.

Our primary strategic focus remains on strengthening our leadership position in diabetes and

obesity. The latter is an increasingly critical area of unmet medical need, impacting more than one

billion people worldwide. Our robust pipeline underscores our ambition to develop transformative

treatment solutions. Notable advancements include the phase 3 development of CagriSema, an

innovative once-weekly combination of an amylin analogue (cagrilintide) and GLP-1 receptor agonist

(semaglutide), and successfully completing the phase 1b/2a trial with subcutaneous amycretin,

a unimolecular long-acting GLP-1 and amylin receptor agonist.

Driven by a strong focus on strategic partnerships and external innovation, our modality portfolio

has expanded significantly in recent years, and now incorporates diverse approaches including

proteins and peptides, small interfering ribonucleic acid (siRNA), small molecules, cell therapy

and gene editing. This diversification enables us to leverage multiple modalities for target biology,

enhancing our ability to address complex diseases. Ongoing projects include collaborations with

biotech firms including Heartseed (cell therapy) and Ventus Therapeutics (small molecules) to

identify novel drug candidates for the treatment of heart failure and atherosclerotic cardiovascular

disease, while the acquisition of the megaTAL technology platform from longstanding partner

2seventy bio has enhanced our in-house gene editing capabilities in haemophilia.

Artificial intelligence (AI) and human data also play a pivotal role in our R&D activities. By leveraging

real-world evidence and diverse data cohorts, we are able to enhance our early discovery processes,

while our AI-driven data mining and analyses help us mitigate risks involved in translating findings

from animal models to humans. This approach accelerates the discovery of new targets and

increases the likelihood of clinical success. Our R&D hub in the greater Boston area, a world-leading

life sciences cluster, exemplifies this forward-thinking approach, working with local partners to

leverage the power of machine learning, big data and AI to enhance our R&D capabilities.

As healthcare innovation accelerates at an unprecedented rate,

Novo Nordisk is driving transformative change across multiple therapy

areas, with a particular focus on meeting unmet patient needs in

diabetes, obesity, cardiovascular diseases and rare blood disorders.

Through strategic investments in AI-driven drug discovery, clinical trial

optimisation and new technological platforms, our ambition is to set new

standards for innovation that deliver tangible, lasting improvements to

the lives of the people we serve.

Empowering patients

with life-changing

innovations

Strategic Aspirations 2025

1 Further raise the innovation-bar for Diabetes treatment

2 Develop a leading portfolio of superior treatment

solutions for Obesity

3 Strengthen and progress the Rare disease pipeline

4 Establish presence in Cardiovascular & Emerging

Therapy Areas focusing on CVD, MASH and CKD1

1. Cardiovascular disease, metabolic dysfunction-associated steatohepatitis and chronic kidney disease.17

Annual review / Strategic Aspirations / Innovation and therapeutic focus

Developing breakthrough

innovations in obesity

Obesity is a public health crisis impacting more than one billion people worldwide. Meeting unmet

needs in obesity is a critical focus area for Novo Nordisk, and our aim is to build a differentiated portfolio

of superior treatment solutions that go beyond weight loss to deliver meaningful improvements in

overall metabolic and cardiovascular health and physical function. Over the past year, we have

strengthened our leadership position in this dynamic and rapidly-growing space. At the forefront

of these advancements are two promising investigational therapies: CagriSema and amycretin.

CagriSema, currently in phase 3 development for the treatment of obesity or overweight and type 2

diabetes, aims to combine the proven efficacy of semaglutide with the potential complementary

benefits of cagrilintide, a novel amylin analogue. Topline results from the pivotal REDEFINE 1 phase 3a

trial demonstrated 22.7% weight loss vs 2.3% with placebo alone after 68 weeks if all people adhered to

treatment – among the highest reductions yet seen in a phase 3a programme for a GLP-1 combination

therapy. CagriSema appeared to have a safe and well-tolerated profile in the study. The most common

adverse events were gastrointestinal, and the vast majority were mild to moderate and diminished over

time, consistent with the GLP-1 receptor agonist class. With the insights obtained from the REDEFINE 1

trial, we plan to further explore the weight loss potential of CagriSema in an additional study.

Amycretin, a novel unimolecular GLP-1 and amylin receptor agonist, aims to combine the physiological

effects of these two biologies, enhancing glucose-dependent insulin secretion, inhibiting glucagon

release, slowing gastric emptying and promoting satiety. Findings from a phase 1b/2a study of

subcutaneous amycretin demonstrated a safety profile consistent with incretin-based therapies.

The most common adverse events were gastrointestinal and the vast majority were mild to moderate

in severity. When evaluating the effects of treatment if all people adhered to treatment, amycretin

demonstrated an estimated body weight loss of 9.7% on 1.25 mg (20 weeks), 16.2% on 5 mg (28 weeks)

and 22.0% on 20 mg (36 weeks). People treated with placebo experienced an estimated 1.9%, 2.3% and

2.0% body weight gain, respectively. These results support the weight lowering potential of amycretin

previously seen with the once-daily oral formulation, which demonstrated 13.1% weight loss after 12

weeks in a phase 1 study.

In addition to these developments, we successfully completed two phase 3b obesity trials with

semaglutide 7.2 mg. When evaluating the effects of treatment if all people adhered to treatment over

72 weeks, semaglutide 7.2 mg demonstrated 20.7% weight loss vs 2.4% with placebo in people with

obesity in the STEP UP study, and 14.1% weight loss vs 3.6% with placebo in people with obesity and

type 2 diabetes in the STEP UP T2D study.

We are also continuing to unpack the full data sets from our landmark SELECT trial programme, which

include samples from approximately 11,000 people collected over a five-year period. Enhanced by AI

and digital capabilities, these data can help us identify new targets and biomarkers for future projects

and predict disease progression and treatment response.

Patricio Argüelles

lives with obesity

in Mexico.

18

Annual review / Strategic Aspirations / Innovation and therapeutic focus

Pioneering transformational

treatments for diabetes

The discovery of insulin more than 100 years ago transformed diabetes from a death sentence

into a manageable disease.

Today, we are still driving change in diabetes by improving quality of life through innovative

new treatments and delivery devices. The past year has been no exception, characterised by

advancements in our diabetes pipeline that demonstrate our commitment to raising the bar

for innovation in this ever-evolving therapy area.

CagriSema is a once-weekly combination of an amylin analogue (cagrilintide) and a GLP-1

receptor agonist (semaglutide). It is currently in phase 3 development for the treatment of

type 2 diabetes in the REIMAGINE programme to assess its effects on blood glucose

regulation, body weight and broader metabolic health parameters. A separate phase 3

programme – REDEFINE – is also investigating CagriSema for the treatment of obesity.

We are also making progress in the development of a once-weekly GIP/GLP-1 receptor dual

agonist, aiming to leverage the combined benefits of two powerful incretin hormones. By

activating both GIP (gastric inhibitory polypeptide) and GLP-1 receptors, this investigational

therapy aims to enhance blood sugar control, increase insulin secretion, reduce glucagon

levels and promote weight loss.

In type 1 diabetes, our early-stage pipeline has similarly transformative potential. Key projects

include Pumpsulin, which aims to deliver a novel fast-acting insulin optimised for use in

future insulin pump-based fully closed-loop CSII (Continuous Subcutaneous Insulin Infusion)

systems, and our work on developing a glucose-sensitive insulin. Currently in phase 1 clinical

development, this cutting-edge therapy is designed to automatically respond to the body’s

glucose levels, offering a more dynamic and physiological approach to insulin treatment.

Another notable example is our DNA immunotherapy project. Targeted at individuals recently

diagnosed and at risk of developing type 1 diabetes, this investigational therapy aims to

transform the management of the disease by addressing the root cause of the immune

system’s harmful response. Administered through regular injections, it seeks to ‘retrain’ the

immune system to stop attacking insulin-producing cells in the pancreas. By doing so, the

therapy aims to preserve the body’s natural ability to produce insulin, potentially preventing

or delaying the onset of type 1 diabetes.

Novo Nordisk

employee Jacob

Sten Petersen and

his daughter Vita at

the Breakthrough

T1D Walk in the US.

Vita was diagnosed

with type 1 diabetes

at age three.

“The therapy aims to preserve the body’s natural ability to produce insulin,

potentially preventing or delaying the onset of type 1 diabetes”

19

Annual review / Strategic Aspirations / Innovation and therapeutic focus

CARDIOVASCULAR & EMERGING THERAPY AREAS

Cardiovascular disease,

the world’s biggest killer

Cardiovascular diseases (CVD) are the leading cause of death globally, taking an estimated

17.9 million lives each year. The prevalence of CVD is on the rise, driven by factors such as

ageing populations, lifestyle changes and increasing rates of obesity and diabetes. This

growing burden underscores the urgent need for innovative treatments to manage and

mitigate the impact of cardiovascular (CV) conditions.

Although CVD is a crowded, highly competitive therapy area, significant unmet needs persist.

Our GLP-1-based therapies Ozempic®

, Wegovy® and Rybelsus® have all demonstrated a

reduction in risk of major adverse CV events in separate cardiovascular outcomes trials, adding

to the growing body of evidence supporting the robust cardiometabolic profile of semaglutide.

Beyond our portfolio of GLP-1-based medicines, we are also developing a pipeline of CV assets

targeting specific, underserved areas where we can leverage our expertise in metabolic

diseases. Central to these efforts is ziltivekimab, our lead CV candidate currently in phase 3

development across multiple CV indications.

Acquired as part of a business development deal to bring Boston-based biotech firm Corvidia

Therapeutics in-house back in 2020, ziltivekimab is an investigational monoclonal antibody

designed to target interleukin-6 (IL-6), a protein in the inflammation pathway linked to the

development of different CV conditions. By targeting IL-6, ziltivekimab is under investigation

to reduce inflammation and potentially improve outcomes across a spectrum of CV conditions

– including atherosclerotic cardiovascular disease, heart failure with preserved ejection

fraction, and acute myocardial infarction.

Phase 2 data demonstrated that ziltivekimab significantly lowers inflammation biomarkers

linked to atherosclerosis in individuals with advanced chronic kidney disease. With phase 3 trials

now in progress, our goal is to establish the first-in-class therapy as a foundational treatment

for high-risk cardiovascular patients, aiming to improve cardiovascular outcomes by targeting

systemic inflammation.

With the potential to improve outcomes across several indications, ziltivekimab exemplifies our

commitment to strengthening our position in the CVD space.

Greg Patterson

lives with

cardiovascular

disease in the US.

“Phase 2 data demonstrated that ziltivekimab significantly lowers

inflammation biomarkers linked to atherosclerosis in individuals with

advanced chronic kidney disease”

20

Annual review / Strategic Aspirations / Innovation and therapeutic focus

CARDIOVASCULAR & EMERGING THERAPY AREAS

Tania DaSilva works at Novo Nordisk

in the US and lives with MASH.

Semaglutide has already proven its effectiveness in enhancing

glycaemic control, promoting weight loss and reducing

cardiovascular risk. Now, it has demonstrated potential as a

treatment for metabolic dysfunction-associated steatohepatitis

(MASH), a progressive liver disease that affects more than

250 million people worldwide.

MASH is characterised by liver inflammation and damage

due to fat accumulation. If left untreated, this condition can

progress to cirrhosis and liver failure, posing a significant

health risk. Yet with only one pharmacological treatment

approved specifically for MASH, there is significant unmet

need in the space for effective therapeutic options.

According to the headline results from part one of the

ESSENCE trial, semaglutide 2.4 mg demonstrated a statistically

significant and superior improvement in liver fibrosis with

no worsening in steatohepatitis – as well as resolution of

steatohepatitis with no worsening of liver fibrosis at 72 weeks.

This initial phase of the study included 800 people with MASH

and moderate to advanced liver fibrosis.

Part two of the trial, designed to evaluate the long-term impact

of semaglutide 2.4 mg on liver-related clinical events, is set to

continue until 2029. Meanwhile, Novo Nordisk plans to file for

regulatory approval in the US and EU in the first half of 2025.

“Semaglutide 2.4 mg

demonstrated a statistically

significant and superior

improvement in liver fibrosis

with no worsening in

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“By combining AI

with high-throughput

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assessed one billion virtual

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modelling and screened

approximately 2,500

compounds in the lab”

Emerging therapies

for MASH

We are revolutionising our R&D efforts through artificial

intelligence (AI), particularly in drug discovery, molecular design

and clinical trial optimisation.

In drug discovery, AI is playing a pivotal role in identifying

new compounds. By combining AI with high-throughput

experimentation, we have assessed one billion virtual molecules

via computer modelling and screened approximately 2,500

compounds in the lab. This led to the discovery of a highly

selective amylin compound that closely mimics the natural

hormone, requiring 50-75% fewer design rounds.

Molecular design has also advanced through AI. By leveraging

predictive pharmacology and knowledge mining, we are able

to accelerate the design cycles of new molecules, expediting

development and enhancing the precision of targeted therapies.

AI is also optimising our clinical trials by identifying subpopulations,

improving trial design and site selection and forecasting outcomes.

For example, harmonising data from around 1,600 clinical trials,

including SELECT and STEP, has provided best-in-class

cardiometabolic data, leading to improved disease insights,

patient stratification and drug target identification.

We are also enhancing our AI capabilities through strategic

partnerships. Our recently expanded collaboration with Valo

Health is a prime example of our approach, seeking to accelerate

the development of up to 20 novel drug programmes within the

cardiometabolic space by leveraging cutting-edge AI technology

and extensive human datasets.

Pioneering AI in

research and development

ARTIFICIAL INTELLIGENCE

Yogesh Shelke works in US R&D at

Novo Nordisk.

21

Annual review / Strategic Aspirations / Innovation and therapeutic focus