EMERGING THERAPIES

NADIA SADI
Nadia lives with NASH
Denmark

Forward-looking statements

Novo Nordisk's reports filed with or furnished to the US Securities and Exchange Commission (SEC), including this presentation as well as the company's statutory Annual Report 2018 and Form 20-F, which were both filed with the SEC in February 2019 in continuation of the publication of the Annual Report 2018, 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, including 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, 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, 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, failure to recruit and retain the right employees, and failure to maintain a culture of compliance.

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 this presentation, reference is made to the overview of risk factors in 'Risk management enables better decision-making' on pp 41-43 in the Annual Report 2018.

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

Important drug information

- Victoza® is approved for the management of type 2 diabetes only
- Saxenda® is approved in the USA and the EU for the treatment of obesity only

Note: All notes, sources and abbreviations for this presentation are found in the appendix.

CAPITAL MARKETS DAY

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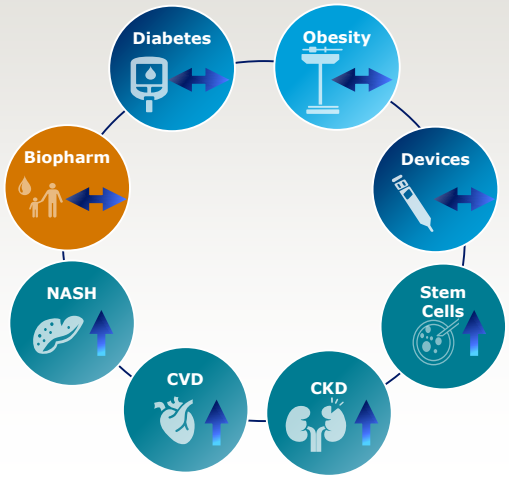
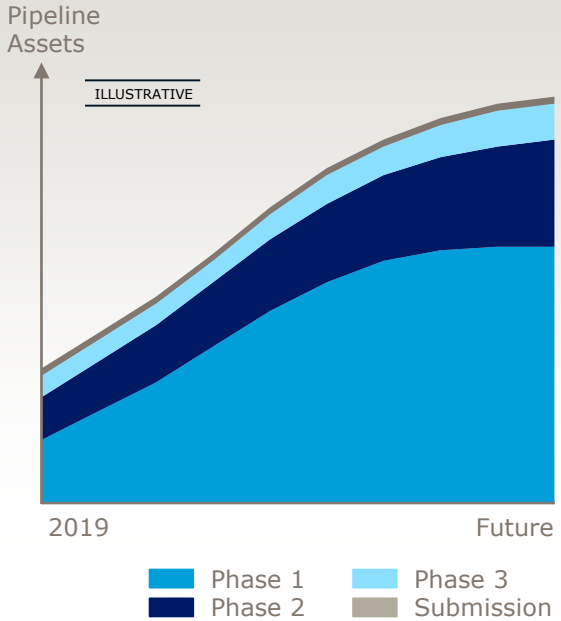
The future of R&D is to focus on increasing the number of clinical assets while maintaining industry-leading late-stage success

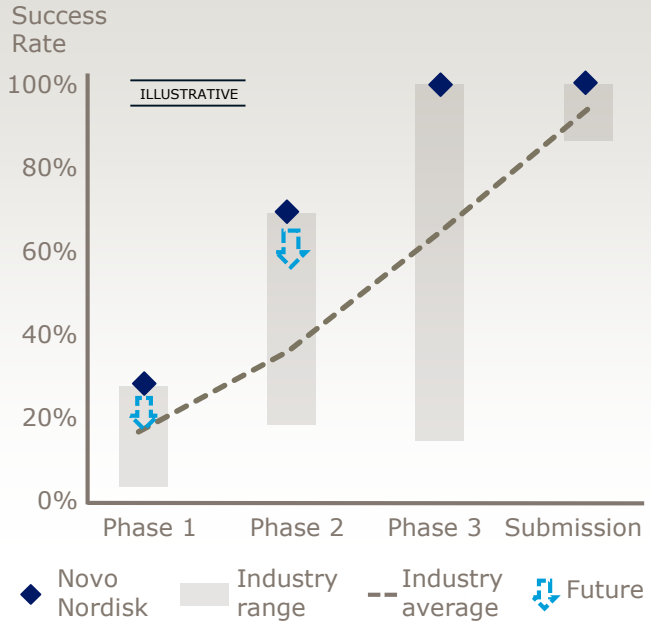
R&D investments will expand beyond historic focus



Increased clinical assets driving R&D investment



Industry-leading success rate[1] from any phase to market



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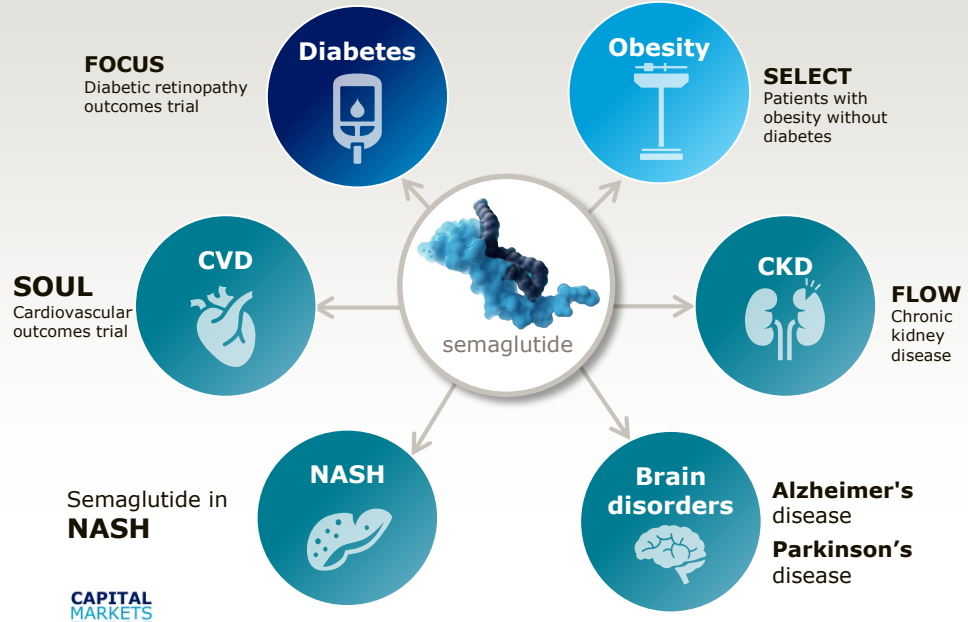
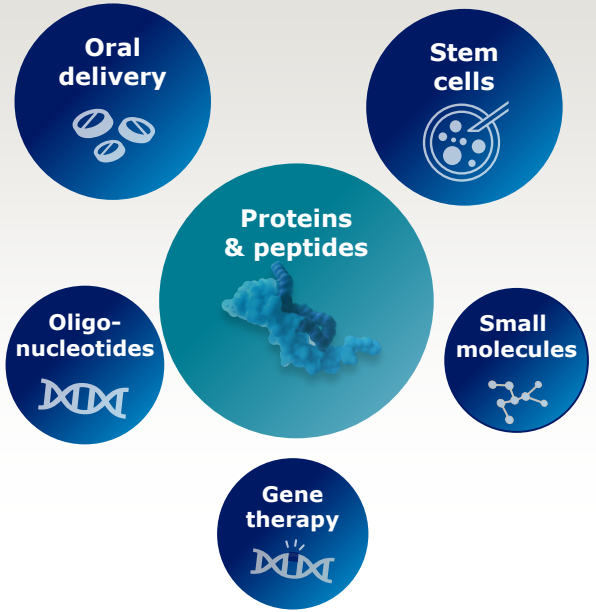
The increase in pipeline assets is driven by semaglutide as well as internal and external innovation

Semaglutide is the entry into adjacent therapies



Leveraging internal capabilities and partnerships to explore new platforms



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Collaboration with partners facilitates accelerated breakthrough science

Novel treatments for metabolic disease

EMBARK BIOTECH

Oral Devices for protein and peptide drug delivery

MIT

Gene editing treatment for haemophilia

bluebirdbio recode for life

Small-molecule drug discovery and development

evotec

siRNA treatments

Dicerna™

Combination treatments for NASH

GILEAD

Improving Beta Cell health

reMYND

Glucose responsive insulin

ziylo™

Carbometrics

Novel treatments for CVD

STATEN BIOTECHNOLOGY

Sickle Cell Disease

EpiDestiny

Selected partnerships over the past 2 years

Gut-Brain-Axis target discovery for metabolic disease

KALLYOPE

Small molecule for treatment of NASH

UBE

Stem cell lines

UCSF University of California San Francisco

Parkinson's disease

BioLamina

LUND UNIVERSITY

Collaboration with partners facilitates accelerated breakthrough science

siRNA treatments

Dicerna™

Combination treatments for NASH

GILEAD

Novel treatments for CVD

STATEN BIOTECHNOLOGY

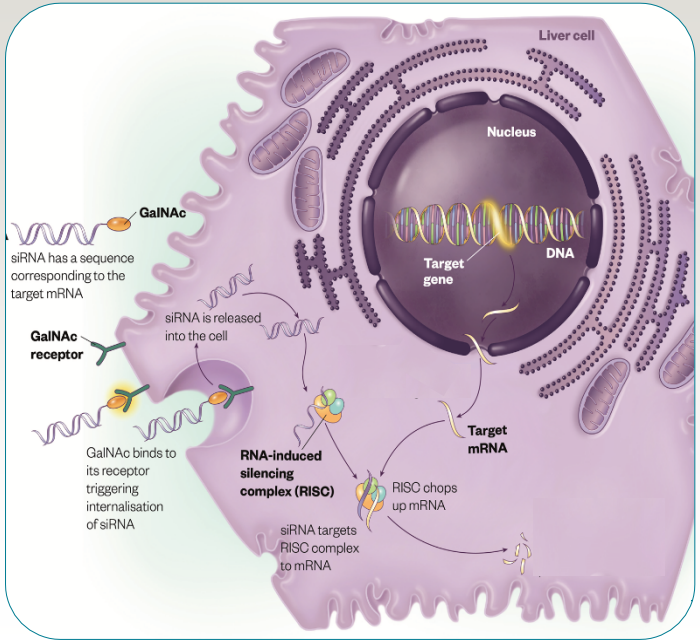
Stem cell lines

UCSF University of California San Francisco

Novo Nordisk and Dicerna partner in the small interfering RNA drug modality space

Maintain competitive edge through new drug modality

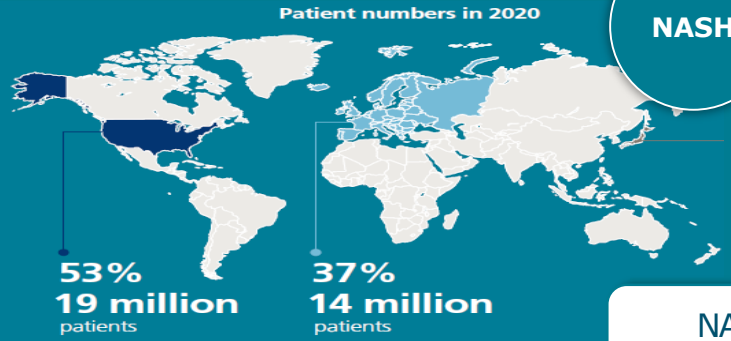
- **Current Novo Nordisk drug platform** focus on proteins and peptides with targets on the **surface of cells**
- **~90%** of molecular targets in T2D are intracellular
- **siRNA** allows for efficient and specific **gene silencing**
- **Previously inaccessible** drug targets, undruggable by small molecules, proteins and peptides



Dicerna's GalXC™ RNAi technology platform

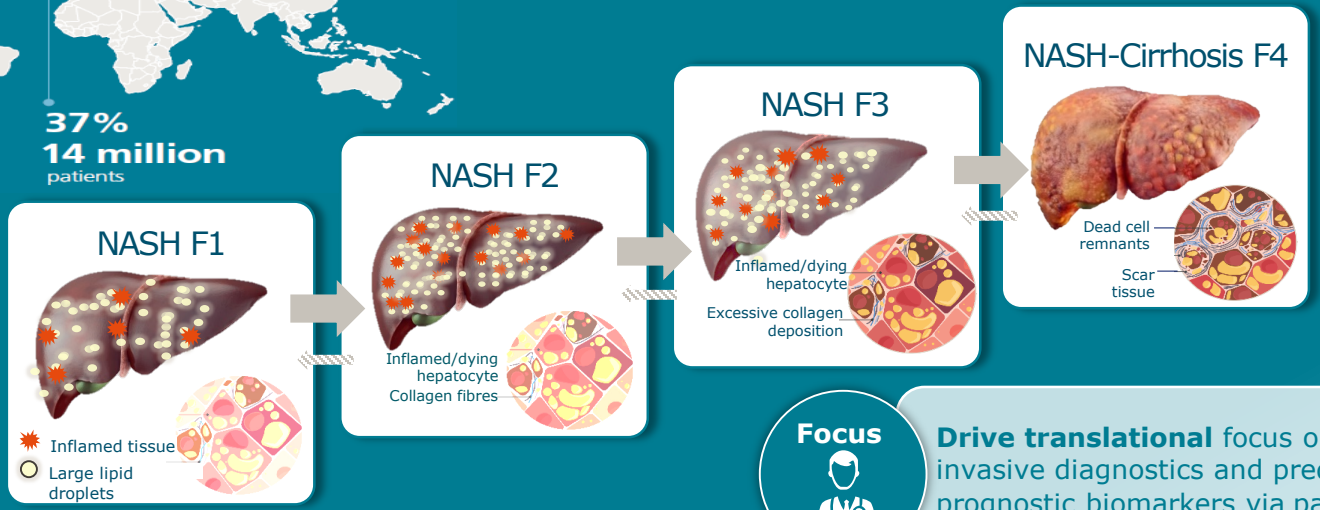
- Proprietary, **patented** RNAi technology
- **Hepatocyte-selective** targeting
- **Subcutaneous** route of delivery
- Well tolerated and long duration of action
- High **target specificity** predictable activity
- High therapeutic index **broad applicability**

NASH is a progressive disease with no existing treatment and low diagnosis rates today



NASH

From **2020 to 2030** the number of treated patients is expected to increase from **0.2 million to 1.7 million**



Focus

Drive translational focus on non-invasive diagnostics and predictive and prognostic biomarkers via partnerships

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The collaboration with Gilead aims to bring therapies to people living with NASH

Gilead possess complementary skillsets

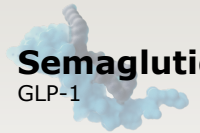
GILEAD

Leader in hepatology and combination therapy

Deep understanding of liver disease treatment

Has established key opinion leader relationships in hepatology

Semaglutide in NASH

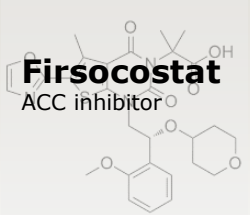


Semaglutide
GLP-1

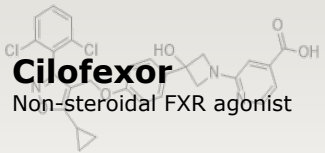
Clinical programme – 3 trials

- Primary endpoints include:
  - NASH resolution without worsening of fibrosis
  - Mean change in liver stiffness measured by MRE
- ~450 patients enrolled
- Phase 2 results expected in H1 2020

Novo Nordisk and Gilead clinical collaboration



Firsocostat
ACC inhibitor



Cilofexor
Non-steroidal FXR agonist

Clinical programme

- Gilead's two oral small molecule assets in loose combination with semaglutide
- Phase 2 results expected in 2020

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Cardiovascular disease is associated with increased mortality

CVD

~18 million people die each year from cardiovascular disease, an estimated 31% of all deaths globally

Key facts

- CVD is the number one cause of death globally
- Of these CVD deaths, 85% are due to heart attacks and strokes

ATHEROSCLEROSIS

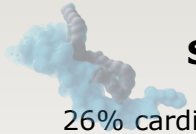
70% of diabetes patients die from atherosclerotic CVD

HEART FAILURE

40% of patients who are hospitalised for heart failure have diabetes

Novo Nordisk is addressing the significant unmet need in CVD via internal and external innovation

Semaglutide paves the way for entering CVD

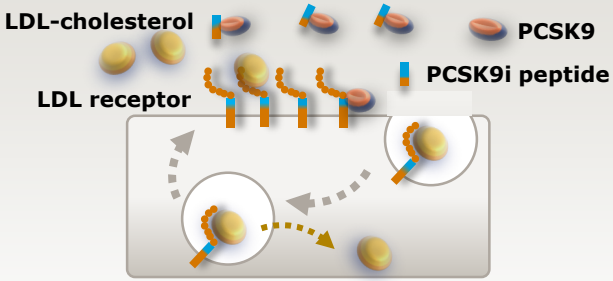


SUSTAIN 6
Semaglutide
26% cardiovascular risk reduction

PIONEER 6
Oral semaglutide
21% cardiovascular risk reduction[1]

SOUL
Oral semaglutide
9,642 people with type 2 diabetes

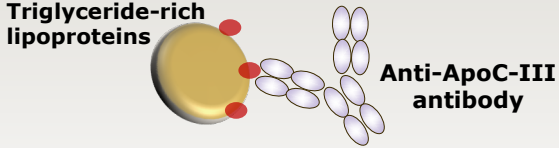
Unique PCSK9i mimetic peptide approach



Increasing LDL receptor levels and efficiently decreasing LDL-cholesterol

Phase 1 results expected H1 2020
Includes lipid lowering measurements

Novo Nordisk and Staten exclusive option agreement



Novel anti-ApoC-III antibody for dyslipidaemia management

Phase 1 initiation expected H1 2020

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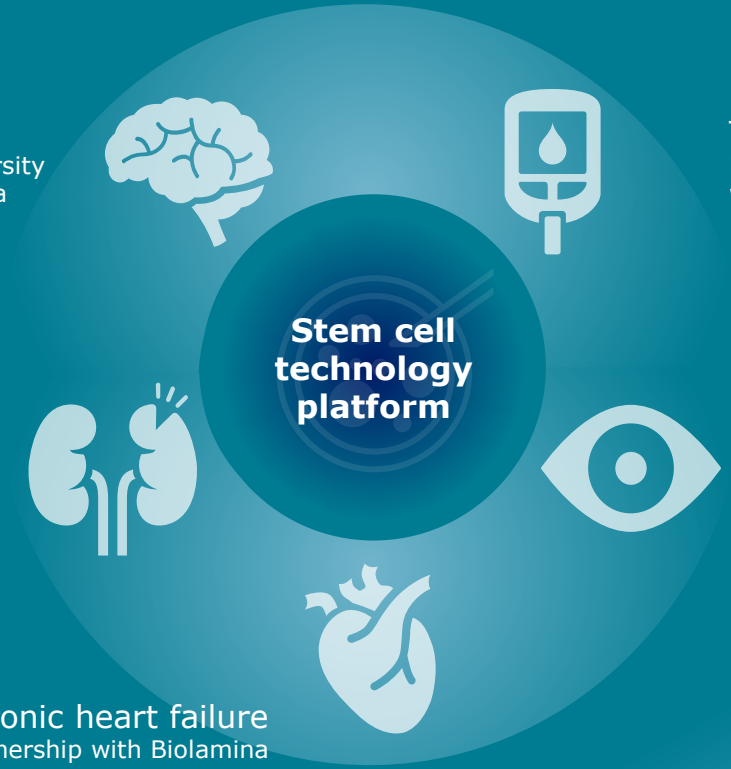
The stem cell platform is expected to solve unmet needs for people with serious chronic diseases



Parkinson's disease
Collaboration with Lund University and partnership with Biolamina

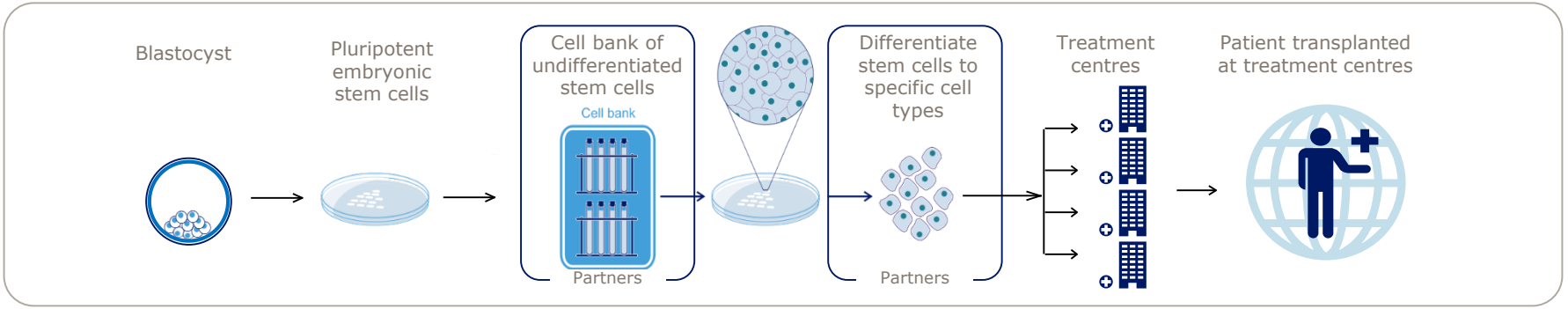
Type 1 diabetes
Encapsulation device in collaboration with universities

Chronic kidney disease
Partnership with Mayo Clinic

Dry age-related macular degeneration
Partnership with Biolamina

Chronic heart failure
Partnership with Biolamina

20+ years of stem cell research experience facilitates entry into regenerative medicine



Realised with Novo Nordisk's comprehensive stem cell capabilities

- GMP-grade production capability in US facility utilising Novo Nordisk's core CMC capabilities
- IP positions on differentiation protocols
- Ethical stem cell practices
- Academic collaborations with stem cell technology experts
- Multiple programs and growing pipeline

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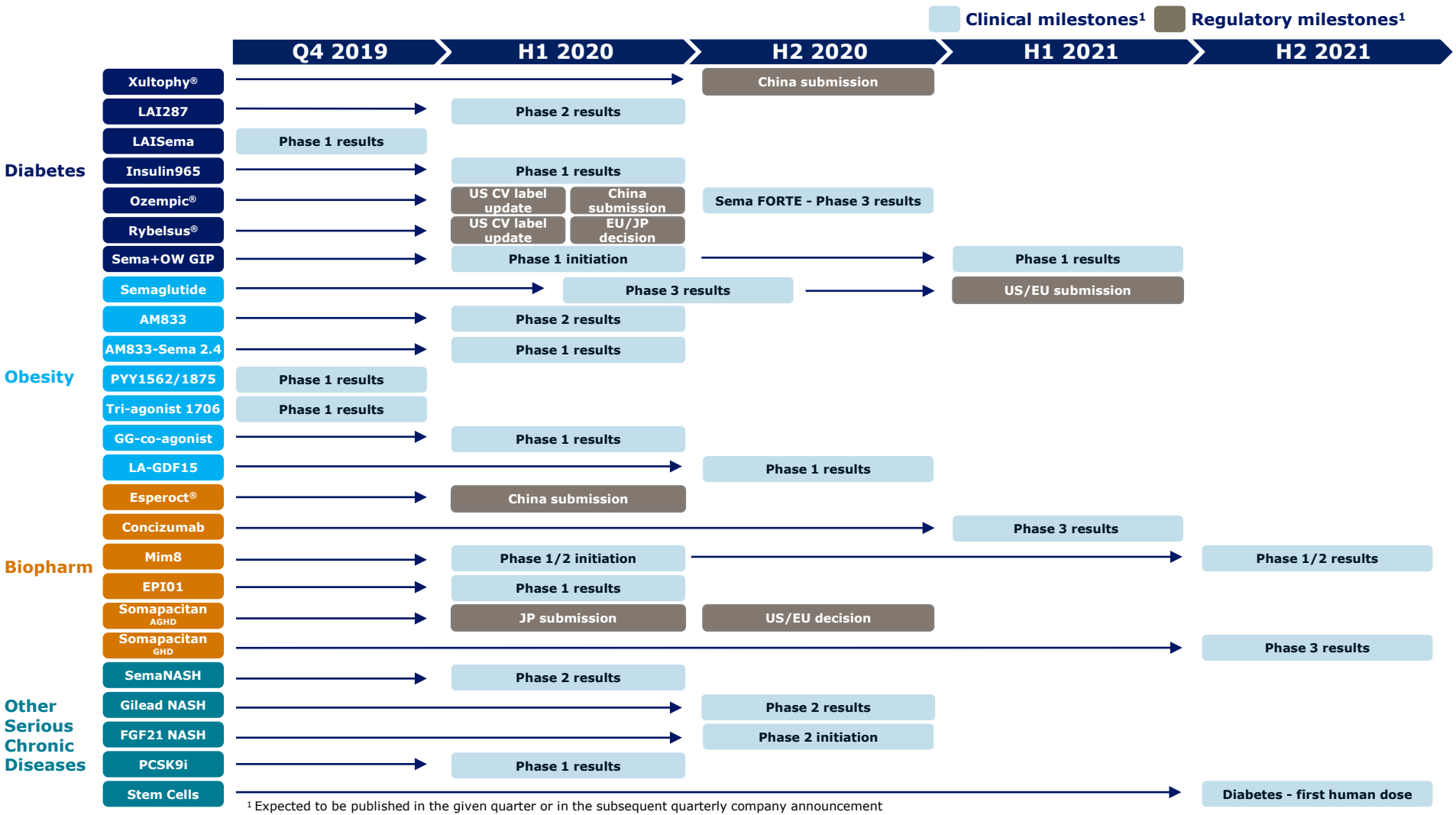


[1] Expected to be published in the given quarter or in the subsequent quarterly company announcement

Closing Remarks

Further raise the innovation bar for diabetes treatment

Develop a leading portfolio of superior treatment solutions for obesity

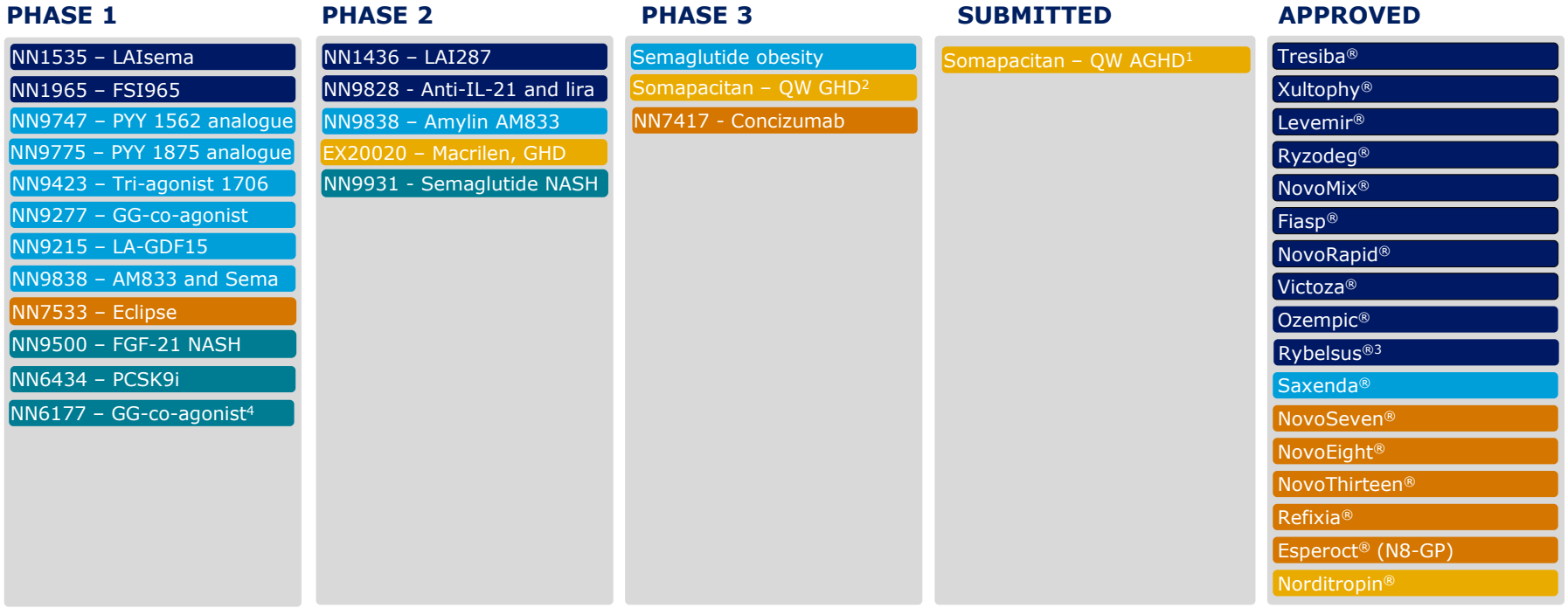
Strengthen and progress the Biopharm pipeline

Establish presence in other serious chronic disease focusing on NASH, CVD and CKD

Sources, Notes and Abbreviations – Emerging Therapies

- **Slide 3:** [1]Probabilities of success to market were calculated using substances entering phase between 2008 and 2014 and year of assessment 2017, source: CMR International, 2017; NASH: Non-alcoholic steatohepatitis; CVD: Cardiovascular disease; CKD: Chronic kidney disease
- **Slide 6:** siRNA: silencing RNA; RNA: Ribonucleac acid
- **Slide 7:** NASH prevalence numbers are based on internal literature review
- **Slide 8:** ACC: Acetyl-CoA carboxylase; FXR: Farnesoid X receptor; GLP-1: Glucagon-like peptide-1
- **Slide 9:** Source: WHO, 2016; World heart foundation.
- **Slide 10:** [1]Not statistically significant; LDL: Low density lipoprotein, PCSK9i: Proprotein convertase subtilisin/kexin type 9 inhibitor
- **Slide 12:** GMP: Good manufacturing practice; IP: Intellectual property
- **Slide 13:**[1] Expected to be published in the given quarter or in the subsequent quarterly company announcement; HBwI: Haemophilia B with inhbitors; GHD: Growth hormone deficiency; AGHD: Adult growth hormone deficiency; CV: Cardiovascular; PoC: Proof of Concept; NASH: Non-alcoholic steatohepatitis

Pipeline supports significant growth opportunities across all four strategic focus areas



[1] Study conducted in adult growth hormone disorder; [2] Study conducted in growth hormone disorders; [3]Approved in the USA; submitted in the EU, Japan, and Canada; [4] Study conducted in NASH
LAIsema: Long-acting insulin combined with semaglutide; FSI965: A once daily insulin; PYY: Peptide YY; QW: Once-weekly; GG: Glucagon GLP-1; GDF15: Growth differentiation factor 15; QD: Once-daily; Sema: Semaglutide; PoC: Proof of Concept; FGF-21: Fibroblast growth factor 21; LAI: Long-acting insulin; AGHD: Adult growth hormone disease; GHD: Growth hormone disorder; lira: Liraglutide