Investor & Analyst Presentation

November 2019

Lundbeck

Company disclaimer

This presentation contains forward-looking statements that provide our expectations or forecasts of future events such as new product introductions, product approvals and financial performance.

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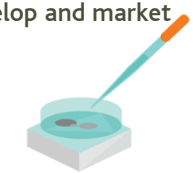
Certain assumptions made by Lundbeck are required by Danish Securities Law for full disclosure of material corporate information. Some assumptions, including assumptions relating to sales associated with products that are prescribed for unapproved uses, are made taking into account past performances of other similar drugs for similar disease states or past performance of the same drug in other regions where the products are currently marketed. It is important to note that although physicians may, as part of their freedom to practice medicine in the US, prescribe approved drugs for any use they deem appropriate, including unapproved uses, at Lundbeck, promotion of unapproved uses is strictly prohibited.

Lundbeck in brief

SPECIALIZED IN BRAIN HEALTH

- ~70 years of expertise in CNS
- Among the first to develop and market antipsychotics

70 yrs



REVENUE (FY2018)

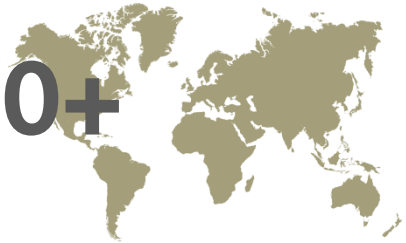
- ~60% generated in North America
- China 2nd largest market

~$2.8bn

GLOBAL PRESENCE

- Headquartered in Denmark
- Operating in 50+ countries

50+



HISTORY

Lundbeck was founded by Hans Lundbeck in 1915 in Copenhagen

1915

OWNERSHIP

Largest shareholder is the Lundbeck Foundation, which annually grants DKK 400-500 million to research

70%

EMPLOYEES

~5,500

Lundbeck

9M 2019 highlights: Continued strong performance of strategic brands and executing on our *Expand and Invest to Grow* strategy

+29%

Strategic Brands
- +24% in local currencies
- Strategic brands constitute 53% of revenue

+8%

International Markets
- Strategic brands grew 38% and constitute 18% of revenue
- Strong demand in general

+7%

Europe
- Strategic brands grew 27% and constitute 51% of revenue
- Strong demand in general

Expand and Invest to Grow

Acquisition of Alder
- Transaction completed on 22 Oct.
- Eptinezumab submitted in the U.S.
- PDUFA action date: 21 Feb. 2020

Pipeline expansion
- Eptinuzumab (LCM)
- Phase III: Brexpiprazole PTSD
- Phase II: Brexpiprazole BPD
- Three projects enter phase I

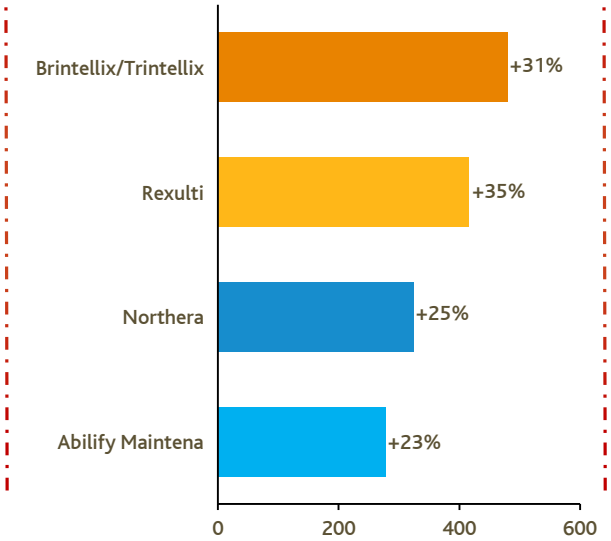
Solid cash position

Net cash
- Net cash 9M.19: DKK 4,024m
- Net debt FY2019e: DKK ~7bn following closure of Alder transaction

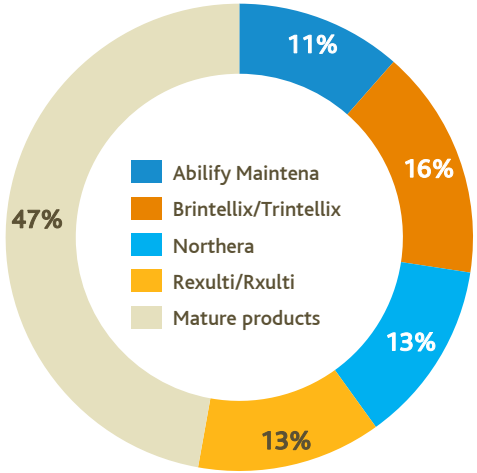
Lundbeck's four strategic brands* added DKK 1.5 billion in sales in 9M 2019 compared to 9M 2018

- **Strategic brands*:** Up 29% (24% in L.C.) to DKK 6,706 million representing 53% of revenue
- **Brintellix/Trintellix:** Up 31% to DKK 2,023 million
- **Rexulti/Rxulti:** Up 35% to DKK 1,620 million
- **Northera:** Up 25% to DKK 1,606 million
- **Abilify Maintena:** Up 23% to DKK 1,457 million

Strategic brands' growth (9M 2019 - DKKm)



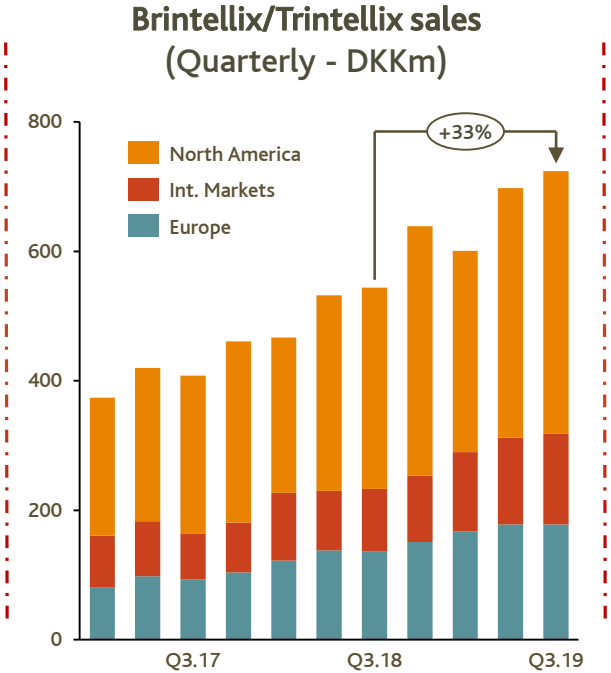
Sales split# (9M 2019)

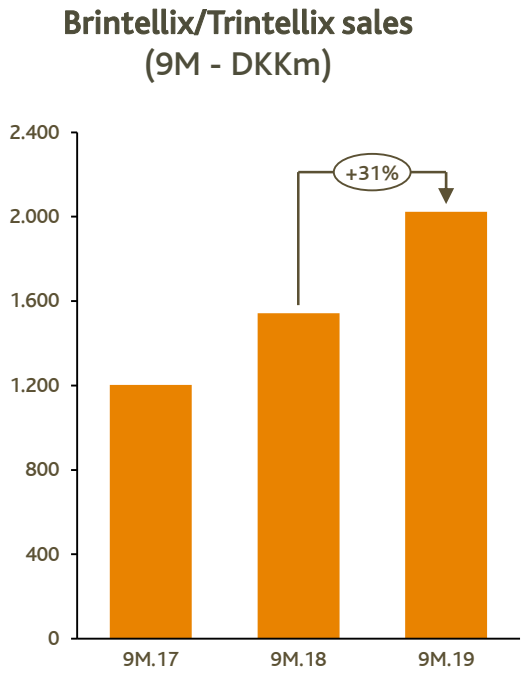


*) Abilify Maintena, Brintellix/Trintellix, Northera and Rexulti/Rxulti
#) Excluding effects from hedging

Brintellix/Trintellix continues its significant growth momentum

- Grew 31% (28% in L.C.) to DKK 2,023 million in 9M 2019
- Continued solid traction in volume share gains
  - >2.5%: Finland, France, Italy, Norway, South Korea, Spain, Switzerland
- In the U.S., volume is up 22% y/y in Q3 2019[1)]
- Trintellix approved in Japan in September

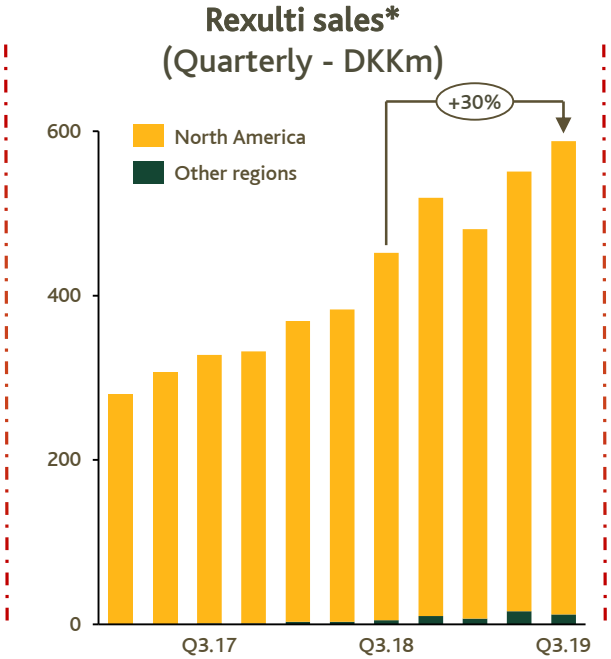


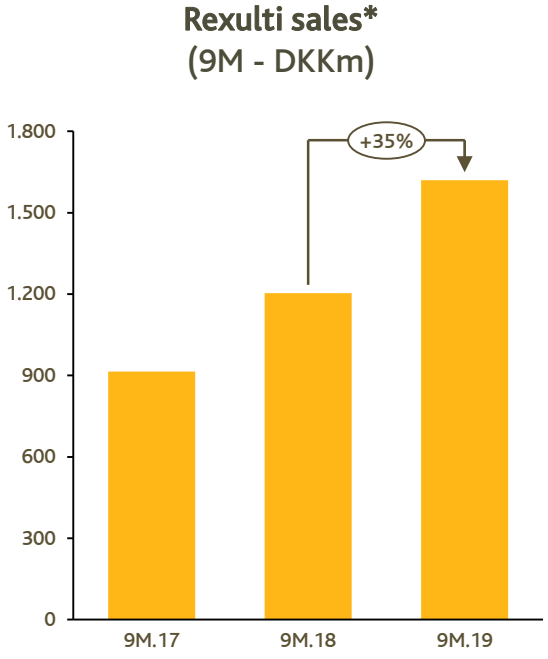


1) Symphony Health (cf. Bloomberg)

Rexulti shows significant growth driven by demand - roll-out in new markets continues

- Grew 35% (27% in L.C.) to DKK 1,620 million in 9M 2019
- In the U.S., volume is up 22% y/y in Q3[1)]
- Launched in North America, selected European markets and Australia, Chile, Mexico and Saudi Arabia
- Phase III programme in PTSD[2)] commenced in October 2019
- Phase II study in BPD[3)] commenced in October 2019



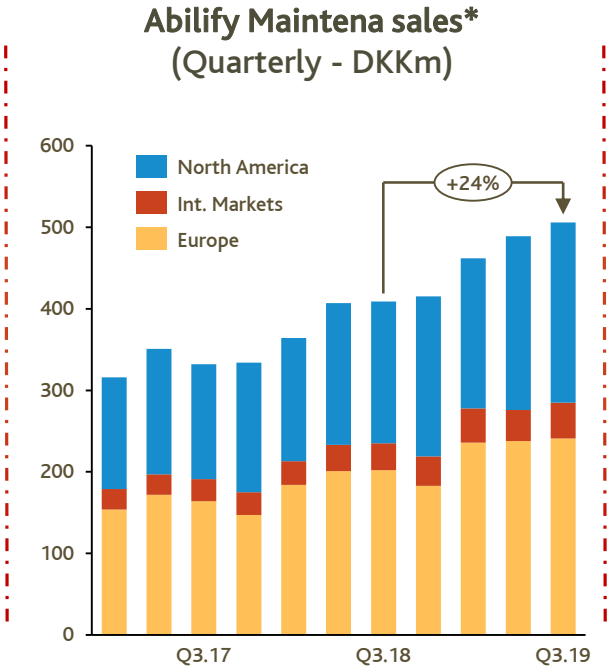


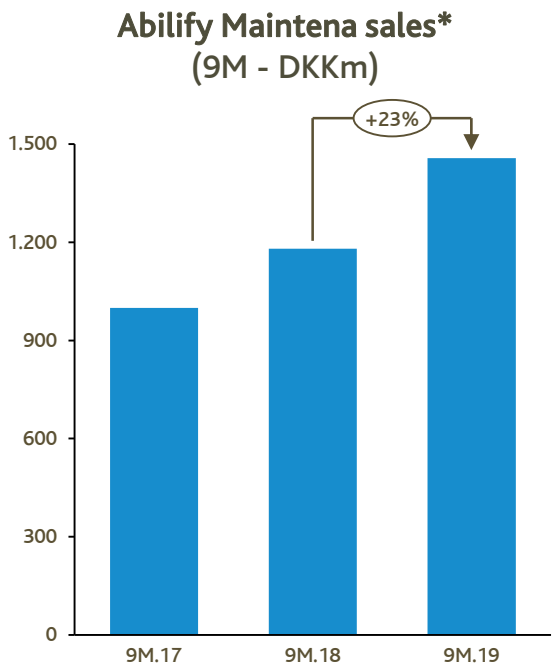
1) Symphony Health (cf. Bloomberg)
2) Borderline Personality Disorder. 3) Post-Traumatic Stress Disorder

**) Lundbeck's share of revenue*

Abilify Maintena continues its robust growth

- Grew 23% (21% in L.C.) to DKK 1,457 million in 9M 2019
- Abilify Maintena is Lundbeck's best selling product in Europe
- LAI market continues double-digit growth to USD 3.8bn (9M)
- Abilify Maintena's share of the LAI market is 17% compared to 16% in FY2018[1)]
- Findings from *PRELAPSE* trial[2)] to be presented at ACNP in December



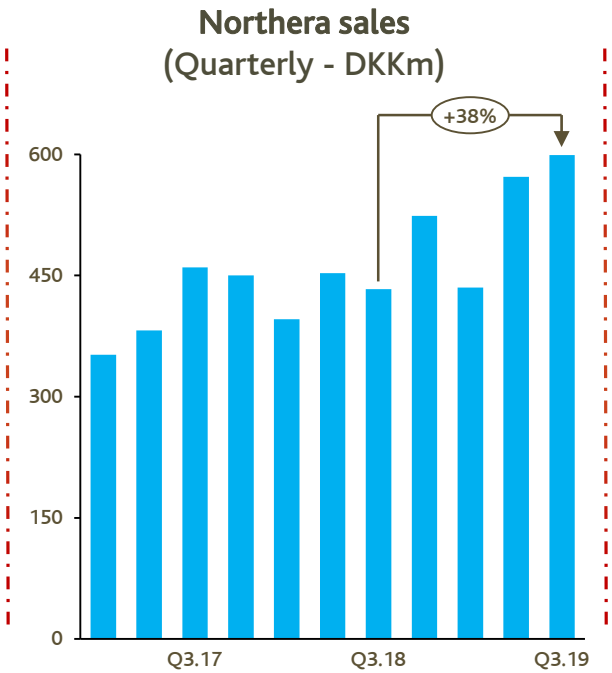


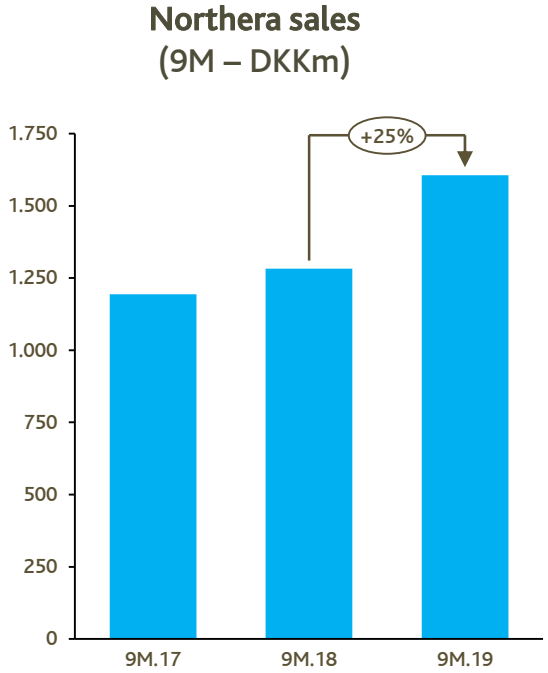
1) *Reported net sales of atypical LAIs*
2) *NCT02360319*

**) Lundbeck's share of revenue*

Northera shows solid growth in sales and demand

- Grew 25% (18% in L.C.) to DKK 1,606 million in 9M 2019
- Volume is up 18%[1] compared to Q3 2018
- Northera impacted by normal quarterly fluctuations driven by e.g. seasonality and pharmacies' buying pattern
- Lundbeck only promotes Northera in the U.S.



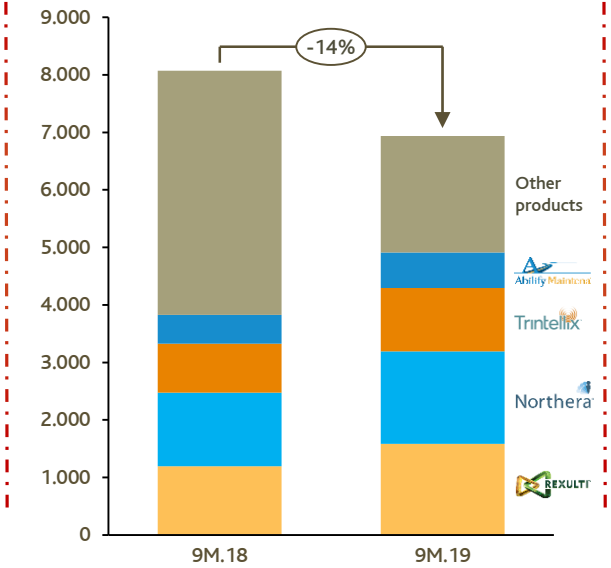


1) Symphony Health (cf. Bloomberg)

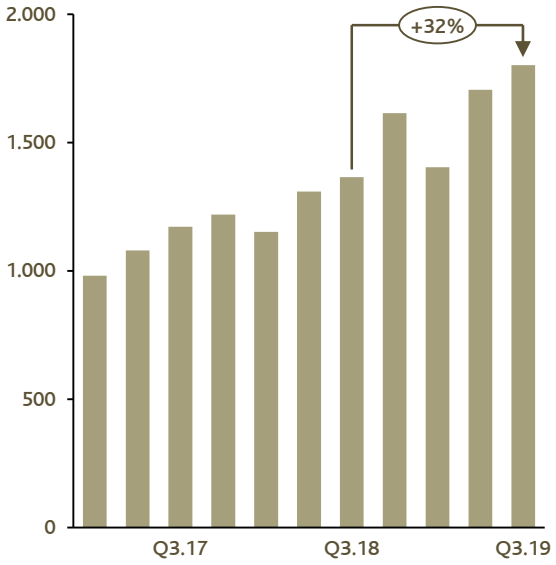
North America – strategic brands up 28% in 9M 2019

- Declined 14% (19% in L.C.) to DKK 6,937 million in 9M 2019
- Total sales impacted by generic introductions of clobazam in October 2018
- Excluding Onfi, sales up 13% in 9M 2019
- Strategic brands# grew 28% to DKK 4,912 million and constituted 71% of revenue in 9M 2019

North America revenue
(9M - DKKm)



North America – strategic brands
(Quarterly – DKKm)

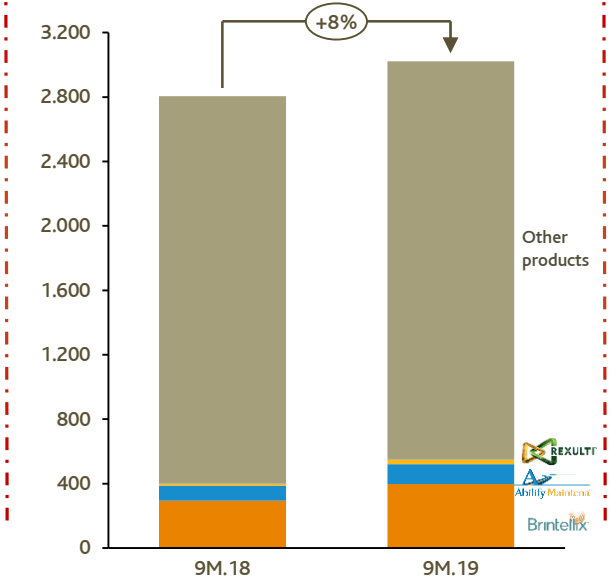


#) Abilify Maintena, Northera, Rexulti and Trintellix

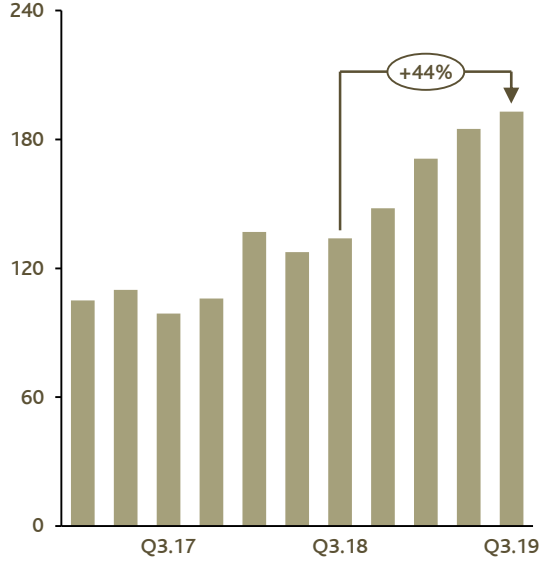
International Markets - strategic brands up 38% in 9M 2019

- Grew 8% (8% in. L.C.) to DKK 3,022 million in 9M 2019
- Strategic brands# grew by 38% to DKK 549 million and constituted 18% of sales in 9M 2019
- Rexulti increases from DKK 11 million to DKK 28 million
- Cipralex/Lexapro down 3% to DKK 1,283 million
- Main markets are Brazil, China, Japan and South Korea constituting ~50% of sales in the region

International Markets revenue (9M - DKKm)



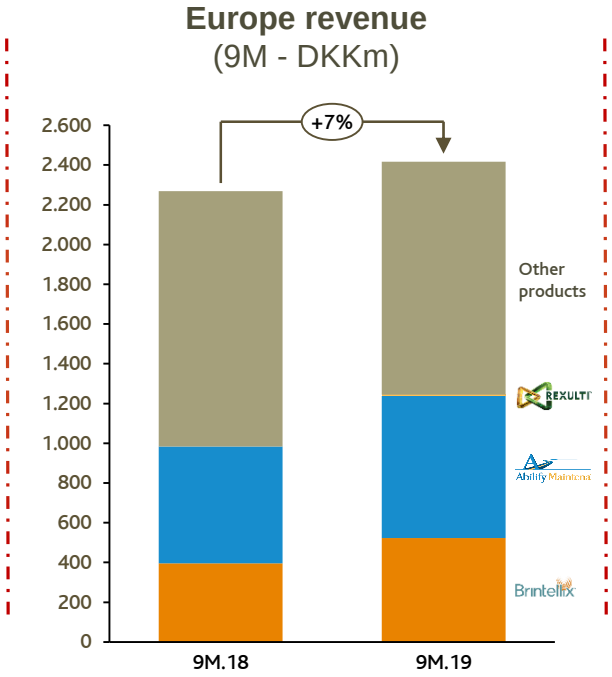
International Markets – strategic brands (DKKm)

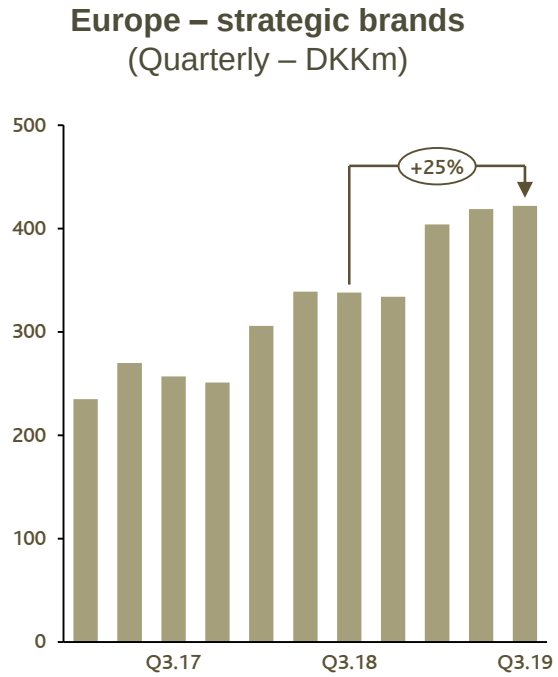


#) Abilify Maintena, Rexulti and Brintellix/Trintellix

Europe – strategic brands up 27% in 9M 2019

- Grew 7% (6% in L.C.) to DKK 2,417 million in 9M 2019
- Strategic brands# grew 27% to DKK 1,245 million and constituted 51% of sales in 9M 2019
- Continued strong performance for both Abilify Maintena and Brintellix
- Largest markets are France, Italy and Spain constituting ~45% of sales in the region





#) Abilify Maintena, Rxulti/Rexulti and Brintellix

Expand and Invest to Grow has significantly strengthened the pipeline

Project	Indication/label expansion	Phase I	Phase II (PoC)	Phase III	Filing
Eptinezumab (anti-CGRP mAb)	Migraine prevention				★
Eptinezumab (anti-CGRP mAb)	"*Treat and Prevent*", migraine			★	-
Brexpiprazole	Agitation in Alzheimer's disease			★	~2021
Brexpiprazole	PTSD			★	≥2023
Brexpiprazole	Borderline Personality Disorder		★		≥2025
Foliglurax (mGluR4 PAM)	Parkinson's disease		★		~2025
Lu AF11167 (PDE 10 inhibitor)	Schizophrenia		★		≥2025
Lu AG06466 (MGLLi)	Tourette Syndrome		★		≥2025
Abilify Maintena 2-mth	Schizophrenia	★			~2021
Lu AF82422 (alpha-synuclein mAb)	Parkinson's disease	★			>2025
Lu AF28996 (D_1/D_2 agonist)	Parkinson's disease	★			>2025
Lu AG06466 (MGLLi)	Neuropatic pain	★			>2025
Lu AF88434 (PDE1b inhibitor)	Alzheimer's, schizophrenia (CIAS)	★			>2025
Lu AG09222 (PACAP mAb)	Migraine	★			>2025
Lu AF87908 (Tau mAb)	Alzheimer's	★			>2025

CGRP: Calcitonin gene-related peptide. mGluR4 PAM: Positive Allosteric Modulator of metabotropic glutamate receptor 4. PDE: Phosphodiesterases. MGLLi: Monoacylglycerol lipase inhibitor ("MAGlipase). PACAP: Pituitary adenylate cyclase-activating peptide.

Lundbeck continues to execute on its *Expand and Invest to Grow* strategy through the acquisition of Alder BioPharmaceuticals

- Maintaining the former Alder site in Bothell, just outside of Seattle, Washington in the U.S.
- Integration progressing rapidly
- Main focus on biopharmaceutical product development and supply
- Financing and closing complete

Eptinezumab

- U.S. PDUFA action date: 21 Feb. 2020
- Planned fillings: Canada (Q1.20), EU (by end-2020)
- Preparing the path for China, Japan and emerging markets

Market Access

- Initiating phase IIIb study to facilitate EU market access
- Building insights and relationships to prepare global markets

Expanding eptinezumab

- Drive *Treat & Prevent* study
- Define and pursue future indications

Eptinezumab has the potential to transform the treatment paradigm for migraine prevention

- Eptinezumab will serve a large underserved patient population in a seriously debilitating disease
- Eptinezumab provides a differentiated clinical profile
  - Rapid onset of prevention by Day 1 driven by IV formulation and 100% bioavailability
  - Strong response rate data from two phase III studies
  - Good tolerability profile similar to placebo
  - Quarterly 30-minute administration: Potentially increased compliance for improved outcome
  - Alternative for patients uncomfortable with self injection

POWERFUL

≥50%, ≥75% and 100% reductions in migraine days

FAST

Onset of prevention Day One post-infusion

SUSTAINED

for 3 months following a single administration and sustained or further increased with subsequent infusions

Two large pivotal studies including ~2,000 patients demonstrated sustained efficacy and good tolerability

PROMISE 1 in Episodic Migraine Patients
(N=888; baseline ~9 migraine days/month)

- Met primary and key secondary endpoints
- Good tolerability profile at all dosage levels

PROMISE 2 in Chronic Migraine Patients
(N=1,072; baseline ~16 migraine days/month)

- Met primary and all key secondary endpoints
- Good tolerability profile at both dosage levels

POWERFUL
≥50%, ≥75% and 100% reductions in migraine days

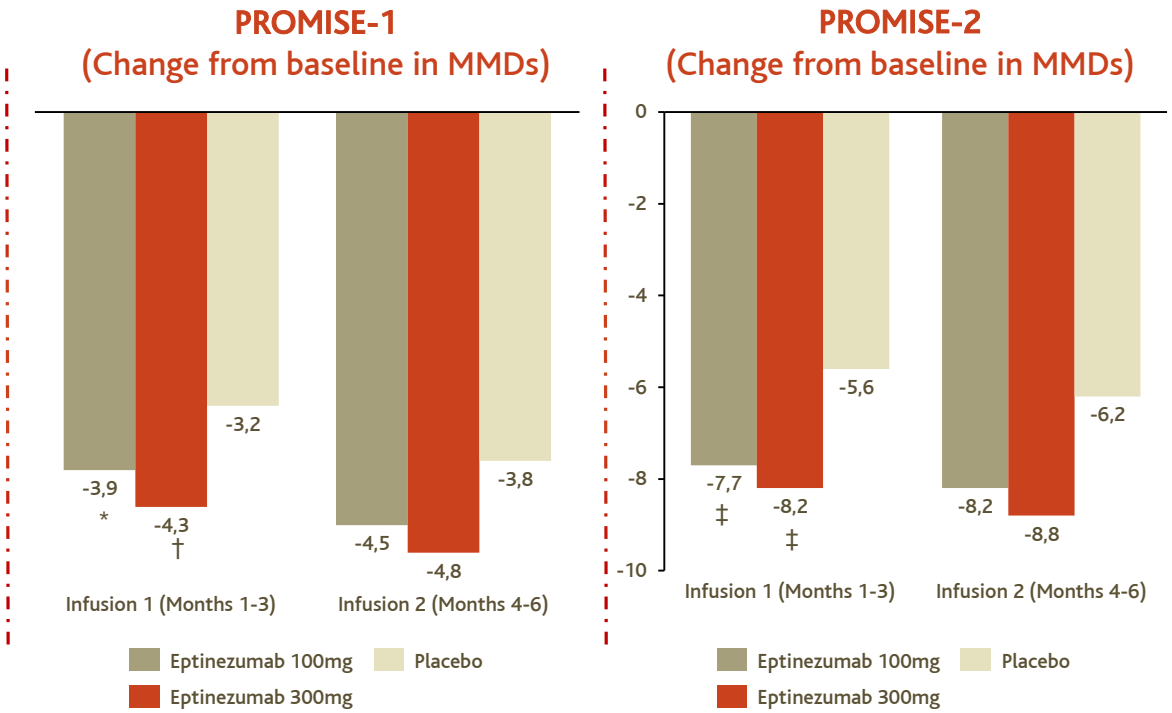
FAST
Onset of prevention Day One post-infusion

SUSTAINED
for 3 months following a single administration and sustained or further increased with subsequent infusions

Significant reduction in monthly migraine days (MMDs) with eptinezumab at both 100mg and 300 mg

Eptinezumab has shown high response rates, especially in adult patients experiencing frequent, chronic migraine

- ~60% of patients had ≥50% reduction in migraine days
- ~40% of patients had ≥75% reduction in migraine days
- Patients that experienced no migraines for at least half of the study period (≥3 mth):
  - 100mg: 14.0%
  - 300mg: 19.1%
  - Placebo: 4.9%



*p=0.0182; †p=0.0001; ‡p<0.0001 vs placebo. Months 4–6 were not included in the prespecified statistical algorithms.

Eptinezumab demonstrated rapid onset from Day 1

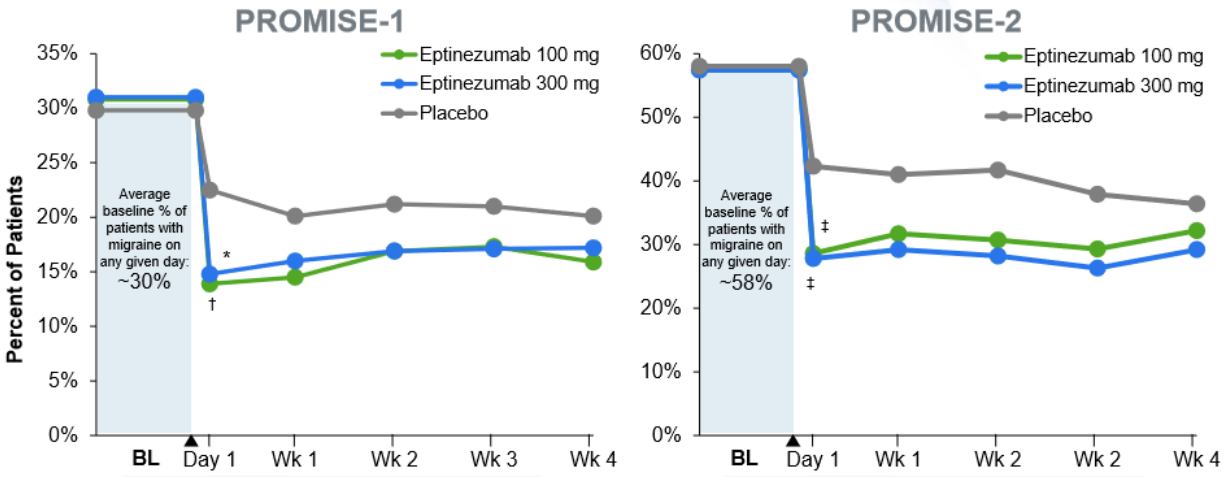
Key secondary endpoint: Percentage reduction on Day 1

PROMISE 1:

- Eptinezumab 100mg: 52.3%
- Eptinezumab 300mg: 54.9%
- Placebo: 24.5%

PROMISE 2:

- Eptinezumab 100mg: 50.3%
- Eptinezumab 300mg: 51.6%
- Placebo: 27.1%



*p=0.0159 vs placebo, unadjusted; †p=0.0312 vs placebo, unadjusted; ‡p<0.0001 vs placebo.

1. Saper J, Wilks K, Chakhava G, et al. Eptinezumab for the Prevention of Episodic Migraine Through 1 Year: Results from the Phase 3 PROMISE-1 (Prevention of Migraine via Intravenous Eptinezumab Safety and Efficacy–1) Trial. Presented at: 2019 American Academy of Neurology Annual Meeting: Philadelphia, PA; May 4-10, 2019. S38.003 2. Kudrow D, Lipton R, Silberstein S, et al. Eptinezumab for Prevention of Chronic Migraine: Results of 2 Infusions in the Phase 3 PROMISE-2 (Prevention of Migraine via Intravenous Eptinezumab Safety and Efficacy–2) Trial. Presented at: 2019 American Academy of Neurology Annual Meeting: Philadelphia, PA; May 4-10, 2019. P2.10-006

Eptinezumab treatment well-tolerated across doses as compared to placebo

Safety and tolerability were evaluated in the PROMISE 1 and PROMISE 2 trials

In pooled data assessment across the two trials, nasopharyngitis (swelling of the nasal passages and the back of the throat) was the only AE occurring at an incidence of 2.0% or greater than placebo

Other AEs included upper respiratory infection, nausea and urinary tract infection, arthralgia (joint pain), dizziness, anxiety and fatigue, which all occurred at a similar incidence to placebo (less than 2% difference vs. placebo) in the pooled data set

Adverse reaction occurring with an incidence of ≥2% for either dose of eptinezumab and ≥2% greater than placebo for PROMISE 1 and PROMISE 2

Adverse reactions	Eptinezumab 100 mg every 3 months N=579	Eptinezumab 300 mg every 3 months N=574	Placebo every 3 months N=588
Nasopharyngitis	6%	8%	6%

Saper J, Wilks K, Chakhava G, et al. Eptinezumab for the Prevention of Episodic Migraine Through 1 Year: Results from the Phase 3 PROMISE-1 (Prevention of Migraine via Intravenous Eptinezumab Safety and Efficacy–1) Trial. Presented at: 2019 American Academy of Neurology Annual Meeting: Philadelphia, PA; May 4-10, 2019. S38.003

Kudrow D, Lipton R, Silberstein S, et al. Eptinezumab for Prevention of Chronic Migraine: Results of 2 Infusions in the Phase 3 PROMISE-2 (Prevention of Migraine via Intravenous Eptinezumab Safety and Efficacy–2) Trial. Presented at: 2019 American Academy of Neurology Annual Meeting: Philadelphia, PA; May 4-10, 2019. P2.10-00

Eptinezumab – Powerful, Fast and Sustained action

Eptinezumab promise

- Rapid onset of prevention by Day 1 driven by IV formulation and 100% bioavailability, addressing unmet medical need
- Strong response rate data from two phase III studies
- Good tolerability profile similar to placebo at all dosages
- Only prevention treatment available as an IV formulation
  - Quarterly administration: Potentially increased compliance for improved outcome
  - Alternative for patients uncomfortable with self injection
- ~70% of ~2,000 target headache specialists/neurologists have capabilities to provide in-office IV therapies

Eptinezumab – Exciting upcoming newsflow with interesting LCM potential

Regulatory:

- U.S. PDUFA action date: 21 February 2020
- Expected submission in Canada (Q1 2020), EU (by end 2020), followed by submissions for approval in other regions around the world

Ongoing studies:

- *RELIEF* study started in November 2019 (n = ~450)

There are several life cycle management opportunities

Indication
RELIEF study - "*Treat & Prevent*" (NCT04152083) Assessing the efficacy of eptinezumab for acute migraine, defined as an active intercurrent migraine occurring in those patients who are candidates for preventive therapy. Subjects will be randomized to receive a single dose of eptinezumab or placebo in a 1:1 ratio. The total study duration will be approximately 4 to 12 weeks, including up to an 8-week screening period, with clinic visits occurring on Screening, Day 0 (dosing day), and Week 4.
Other potential indications
- Medication overuse headache
- Cluster headache
- Post-concussion headache
- Other pain syndroms

Migraine is one of the most debilitating diseases globally

Most disabling disease for people under 50 years - the most productive years of people's lives[1]

Attacks usually last 4-72 hours[2]

Symptoms include **extreme pain, nausea, vomiting, extreme sensitivities** to light and sound, **gastrointestinal issues**

~18m individuals are candidates for prevention – less than **50%** are treated[3]

Significant unmet medical needs **remain with existing preventive treatments,** including speed of onset

Chronic migraine often leads to **depression, anxiety,** and **sleep disturbances**[2]

1) Steiner, TJ, Stovner, LJ, & Vos, T. The Journal of Headache and Pain (2018) 19:17 ."Most disabling disease of people under 50 years old." 2) Migraine Research Foundation. Migraine Facts. Available at: https://migraineresearchfoundation.org/about-migraine/migraine-facts/. Accessed January 2, 2019. 3) Decision Resources: DRG 2018 Migraine Market report

Migraine profoundly affects patients' lives

93% say migraine affects their ability to work[1]

86% say migraine affects their ability to maintain relationships with children[1]

89% say migraine affects their ability to maintain relationships with a partner[1]

Only **4/10** are satisfied with their current migraine treatment[1]

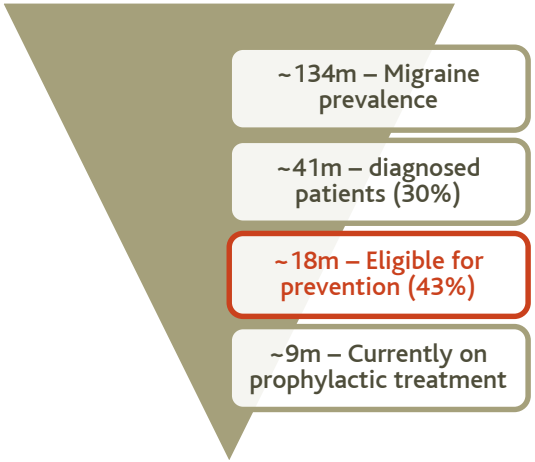
Patients value efficacy and onset of efficacy regardless of the mode of administration

- 87% rate **effectiveness** as important in determining whether they accept treatment (highest-rated)[2]
- 79% rate **fast acting** as an important treatment feature when considering migraine prevention[2]

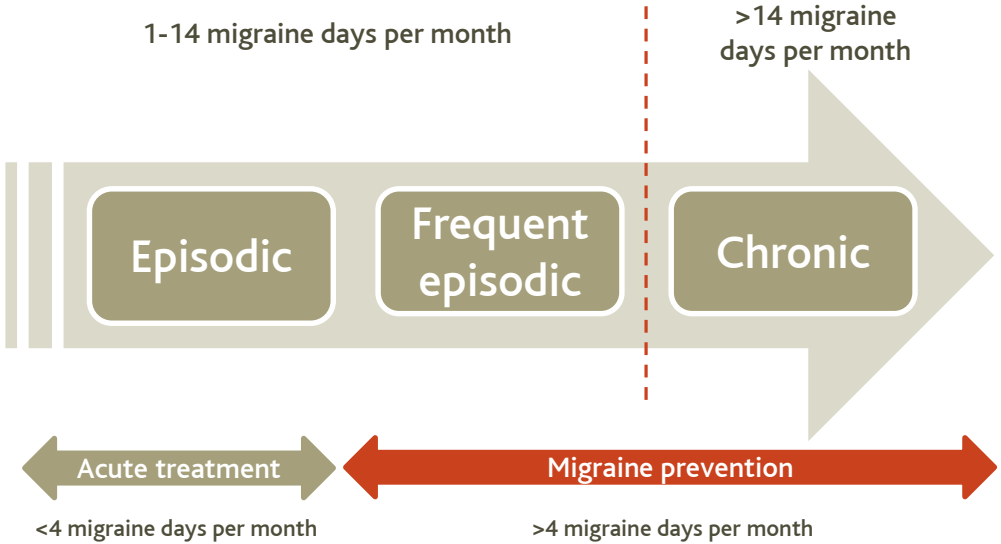
1) Chronic Migraine in America Survey Results of 3923 individuals living with migraine, 2016. Presented by migraine.com.
2) Alder proprietary patient market research, 2017 (N=250).

Migraine prevention represents a large and under served market

Addressable population (major countries[1])



Migraine is divided into two major categories, episodic and chronic depending on the frequency of headaches



1) Decision Resource, DRG 2018 Migraine Market report. Covers G7+China

Both studies in brexpiprazole pivotal programme in PTSD commenced

Post-traumatic Stress Disorder (PTSD)

- ~8.6m U.S. adults affected, but ~80% estimated to be undiagnosed
- Growing economic and social burden of care
- Inadequate response with approved SSRIs - polypharmacy the norm

Study objective[1)]	To evaluate the efficacy, safety, and tolerability of 12-week brexpiprazole + sertraline combination treatment in adult subjects with PTSD (n = ~600)

Two studies in the pivotal programme (phase III):

- Brexpiprazole (fixed dose (2, 3mg) and flexible dose up to 3mg) in combination with sertraline
- **Primary endpoint:** Clinician-Administered PTSD Scale for DSM-5 (CAPS-5) total score
- U.S. dedicated study

1) Clinicaltrials.gov ID: NCT04124614. The second study not listed yet

Brexpiprazole PoC study in borderline personality disorder commenced

Borderline Personality Disorder (BPD)

- Pharmacotherapy focuses on key symptoms (aggression, irritability, depressed mood, behavioural dyscontrol and affective dysregulation, anxiety, psychoticism and hostility)
- Substantial unmet medical need - no drugs approved for BPD
- 1.5-2 million potential patients in the U.S.

Study objective[1)]	To evaluate the efficacy and safety of 12-week brexpiprazole for the treatment of subjects diagnosed with BPD (n = ~240) to provide a pharmacological treatment for BPD

PoC study (phase II):

- Brexpiprazole (flexible dose 2-3mg) and placebo
- **Primary endpoint:** Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD) total score (Week 12)
- **Secondary endpoints:** Clinical Global Impression - Severity of Illness (CGI-S); Patient's Global Impression of Severity (PGI-S); Patient's Global Impression of Change (PGI-C) Scale; Clinical Global Impression - Improvement (CGI-I) Scale
- Headline results due in 2021 - Fast Track designation granted October 2019

1) Clinicaltrials.gov ID: NCT04100096

Third study in brexpiprazole pivotal programme in agitation Alzheimer's progresses as planned

Agitation in Alzheimer's (AAD)

- >20% of individuals in a community setting and >50% of nursing home residents with dementia have agitation
- 1.5-2m dementia patients in the U.S. with agitation / aggression
- No FDA approved medication
- Associated with increased caregiver burden, decreased functioning, earlier nursing home placement

Study objective[1)]	To compare the efficacy of 2 doses of brexpiprazole with placebo in subjects with agitation associated with dementia of the Alzheimer's type (n = ~225)

Third study out of three in the pivotal programme (phase III):

- Brexpiprazole (fixed dose 2mg and 3mg) and placebo
- **Primary endpoint:** Cohen-Mansfield Agitation Inventory (CMAI) total score (Week 12)
- **Secondary endpoint:** Clinical Global Impression Severity of Illness (CGI-S) score
- Headline results due early 2021 - Fast Track designation granted February 2016

1) Clinicaltrials.gov ID: NCT03548584

Abide - adding new drug discovery platform with potential to deliver first-in-class compounds across multiple CNS indications

The transaction:

- Upfront payment: USD 250 million
- Financed through existing financial reserves
- Acquisition reached final approval on 29 May 2019
- **Future milestones:** Up to USD 150 million in R&D[1)] and sales milestones[2)]

ABIDE THERAPEUTICS

- Now Lundbeck La Jolla Research Center
- Focused on Serine Hydrolase (S-H) biology
- Unique chemo-proteomic platform to discover first in class S-H inhibitors
- Headquarters: La Jolla, CA
- Strong ties to The Scripps Research Institute (TSRI) and Dr. Cravatt Labs.
- 25 Employees

Serine hydrolase (S-H) Enzyme Superfamily

- One of the largest and most diverse enzyme classes in humans
- Profoundly influence multiple biological processes in health and disease
- Mood, pain, perception, movement, inflammation
- Selective inhibitors can restore physiological balance in dysregulated signalling pathways
- Multiple blockbuster drug classes from this family
  - DPP-4 inhibitors; AChE inhibitors; Thrombin inhibitors; Xa inhibitors

1) *Triggered when stat-sig. results in a phase II clinical trial in the Tourette's indication or first patient enrolled in a phase III trial in Tourette's using the lead compound.*
2) *First commercial launch and when revenue reach certain thresholds*

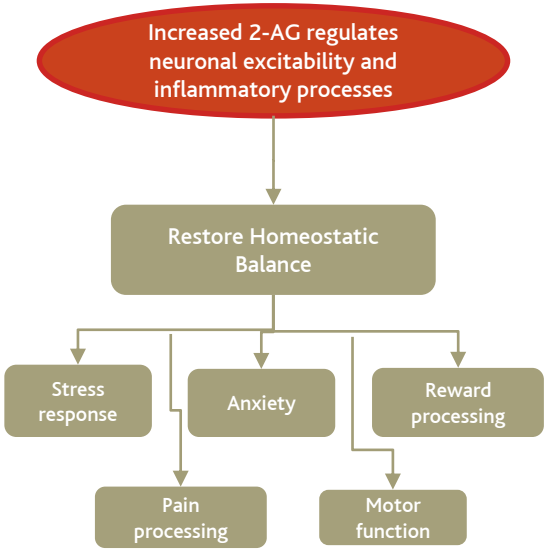
Lundbeck La Jolla Research Center now established

- Transition of Abide to pure discovery site is completed
- Lu AG06466 currently in phase IIa progressing as planned
  - Headline results due 2020
- Strong progress of the early portfolio
  - FIH for next project expected in 2020

First Target: Endocannabinoid modulation through MGLL inhibition - A compelling therapeutic target for a wide range of CNS diseases

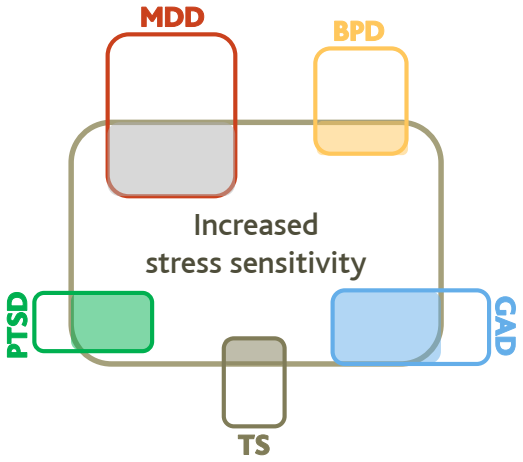
- Monoacylglycerol lipase inhibitors (MGLLi) regulate endocannabinoid tone, which regulates neurotransmitter balance
- MGLLi selectively activate CB1 by elevating 2-AG levels only in active circuits – contrast with global, maximal, and sustained activation by exocannabinoids
- Lead molecule Lu AG06466 is a potent, selective first-in-class MGLLi in clinical development in two indications
- Two additional endocannabinoid modulators advancing to the clinic through 2020

MGLL inhibition



Multiple future potential indications in psychiatry and neurology

Potential to use biomarkers to enrich patient populations



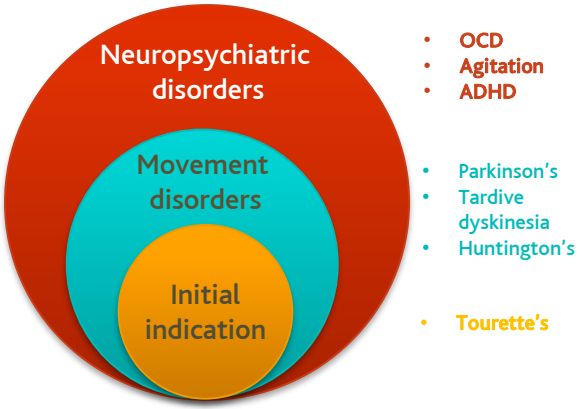
Lu AG06466: First-In-Class drug with broad potential in CNS

- Lu AG06466 modulates the endocannabinoid system preferentially in areas where neuronal circuits are excessively activated
- Initial trials ongoing in Tourette's and neuropathic pain
- Phase Ib trial in adult TS patients demonstrated significant effects across multiple endpoints of tic reduction
- 200,000 patients in U.S. with severe disease[1)]

Exploratory phase IIa trial ongoing
(NCT03625453)

- Initiated in October 2018
- 48 adult patients with Tourette's
- Part 1: 8 weeks with daily administration; Patients who choose to enter Part 2: additional 4 weeks with daily administration
- Change from baseline in Total Tic Score of the Yale Global Tic Severity Scale (YGTSS-TTS)
- Headline results due in 2020

Lu AG06466: First-in-Class drug with broad potential in CNS

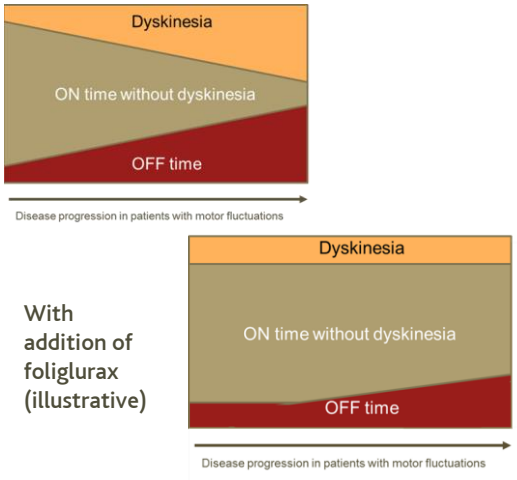


1) NIH - National Institute of Neurological Disorders and Stroke

Foliglurax – an interesting new pipeline asset currently in PoC testing in Parkinson's patients

- Increase activity of a specific glutamatergic target (mGluR4)
- Symptomatic treatment of *OFF*-time in Parkinson's and levodopa induced dyskinesia
- Strong IP
- Global rights to foliglurax and full control of asset
- Phase II started in July 2017
  - Two active arms + placebo (BID)
  - ~165 patients (Europe)
  - Change in awake *OFF* time based on subject diary entries

Levodopa-induced dyskinesia



Motor complications of levodopa

- PD-LID is the most important unmet medical need after disease modification in Parkinson's[2)]
- PD-LID affects ~50% after 5-10 years increasing to ~90% after 10-15 years of L-DOPA therapy
- 170-200,000 patients in the U.S. with PD-LID
- Once established, PD-LID is difficult to treat

1) NCT03162874

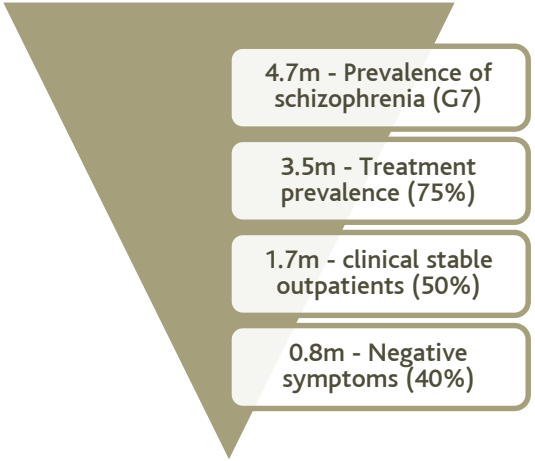
Modified based on: Jankovic, Mov. Disorder 2005,

PD-LID: Parkinson's Disease – Levodopa-Induced Dyskinesia
2) Datamonitor

Lu AF11167: Addresses negative symptoms of schizophrenia that trouble patients most

- Negative symptoms most bothersome symptom for patients with schizophrenia
- Primary cause for inability to live independently, hold jobs, establish personal relationships, and manage everyday social situations
- Widely recognized as important features of schizophrenia associated with changes in emotions and behaviours
- Difficult to treat; currently available antipsychotics are not considered effective

Prevalence (major countries)



- Phosphodiesterase 10A inhibitor (PDE10Ai)
- Potential novel MoA for the treatment of negative symptoms in patients with schizophrenia
- Potentially maintaining control of positive symptoms
- Phase II started in December 2018*
  - **Monotherapy**
  - Two fixed-flexible doses + placebo (BID)
  - ~250 patients
  - Primary endpoint: Change from baseline to Week 12 in BNSS total score

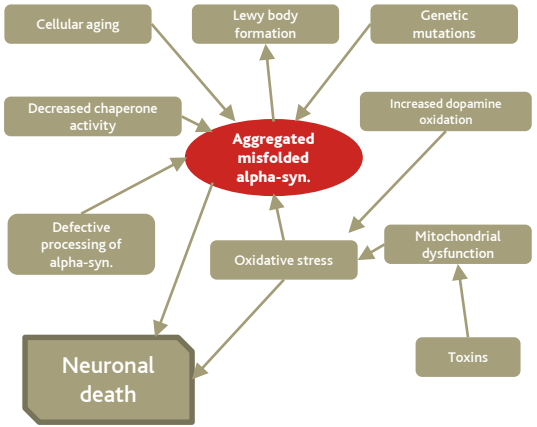
Source: Decision Resource; Schizophrenia | Landscape & Forecast 2018

**) NCT03793712.*
BNSS: Brief Negative Symptoms Scale

Lu AF82422: Potential disease modifying antibody in Parkinson's

- Lu AF82422 is a human IgG1 mAb that recognizes all major alpha-synuclein forms including aggregated/misfolded forms involved in the pathogenesis of Parkinson's
- First single-ascending-dose study to evaluate safety and tolerability of Lu AF82422 in healthy volunteers and Parkinson's patients
- Intervention aimed for delay in disease progression in PD or other synucleinopathies

Pathogenesis of Parkinson's (PD)



Modified based on Javed et al. CNS & Neurological Disorders - Drug Targets, 2016, Vol. 15, No. 10

Ongoing phase I study[1]:

- Healthy non-Japanese and Japanese subjects and in patients with Parkinson's
- ~45 participants
- **Primary endpoint:** Number of patients with incidence of Treatment-Emergent Adverse Events (safety and tolerability) from dosing to Day 84
- Study initiated in July 2018

1) *NCT03611569*

Lu AF28996: A potentially highly efficacious oral treatment for Parkinson's patients experiencing motor fluctuations

- Lu AF28996 is highly potent agonist at the D_1- and D_2-type dopamine receptors
- D_1/D_2-type agonists are known to be highly efficacious even in the later stages of Parkinson's, but the currently available agonist (apomorphine) cannot be delivered by oral route
- Parkinson's disease (moderate to advanced) as adjunct to L-DOPA (or monotherapy pending data)

Ongoing phase I study[1]:

- Single- and sequential-ascending-dose of Lu AF28996 to healthy young men
- ~20 participants
- Open-label study investigating the safety, tolerability and pharmacokinetic profile of Lu AF28996
- Study initiated in May 2018

1) *NCT03565094*

Lu AG06466 in phase Ib study in neuropathic pain

- MGLLi have shown to reduce pain in preclinical models of inflammatory, post-surgical, and neuropathic pain
- Significant scientific evidence supports the use of exocannabinoids for the treatment of pain, including controlled clinical studies in patients with NP
- MGLLi may offer significant therapeutic benefits over exocannabinoids, with potential for increased efficacy and a better safety profile

Neuropathic pain (NP)

- NP results from damage to the nervous system in the brain or spinal cord or in the peripheral nerves
- NP is a common and debilitating condition that may occur in 10% of Americans
- Current approved treatments for NP include gabapentinoids and antidepressants
- Beyond the lack of effective medications, many patients chronically use opioid drugs
- There is a pressing need for efficacious non-opioid therapies for NP

Ongoing phase I study[1]:

- Designed to identify a titration regimen of Lu AG06466
- ~38 adult patients with peripheral neuropathic pain
- The efficacy of Lu AG06466 in treating neuropathic pain will be assessed by the change from baseline in pain intensity scores using numerical rating scale (NRS-11)
- Study initiated in Q4 2017

1) NCT03447756. This study will enrol patients with peripheral neuropathic pain due to one of the four following diagnostic groups: post-herpetic neuralgia, diabetic peripheral neuropathy, small fiber neuropathy or post-traumatic neuropathic pain

1)

Three new projects enter first-in-humans testing

Lu AF88434[1)]

- Lu AF88434 is a potent and selective phosphodiesterase PDE1b inhibitor (PDE1b-i)
- SAD study investigating the safety, tolerability, PK/PD properties of Lu AF88434
- N = ~66 participants
- PDE1 is highly expressed in brain regions involved in cognitive processing
- Potential cognitive enhancer – e.g. in schizophrenia and Alzheimer's (AD)

Lu AF87908[2)]

- Lu AF87908 is a humanized IgG1 Tau mAb
- SAD study in healthy subjects and AD patients
- N = ~100 participants
- Delay disease progression in AD or other tauopathies

Lu AG09222

- Lu AG09222 mAb inhibits pituitary adenylate cyclase-activating polypeptide (PACAP)
- N = ~100 participants
- PACAP is an important signalling molecule in the pathophysiology of migraine

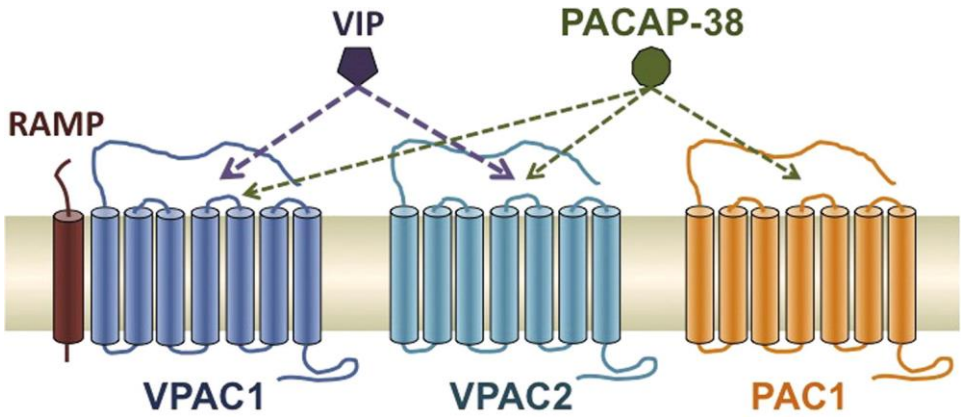
1) Clinicaltrials.gov ID: NCT04082325

2) NCT04149860
Immunoglobulin G1 (Ig) is types of antibodies (Ab)

Potential to build a migraine franchise in the future with ALD1910 early-stage PACAP[2] inhibitor mAb

A differentiated approach to migraine prevention

- Highly potent and selective humanized PACAP binding antibody
- Preclinical data[1] indicate that PACAP[2] and CGRP[3] have differentiated pharmacology with respect to migraine-associated symptoms
- Potential for mono-therapy in non-CGRP induced migraine or combination therapy with eptinezumab



Kaiser, Russo: "CGRP and migraine: Could PACAP play a role too?", Neuropeptides, Volume 47, Issue 6, 2013

1) Loomis et al: Pharmacologic characterization of ALD1910, a potent humanized monoclonal antibody against the pituitary adenylate cyclase-activating peptide, JPET Fast Forward
2) Pituitary adenylate cyclase-activating peptide
3) Calcitonin gene-related peptide

Finance


ANNUAL REPORT 2009
Annual report 2010
PATIENTS
FOCUSED
PASSIONATE
RESPONSIBLE
INNOVATION
PROFITABILITY
DEPRESSION
GLOBAL
ALZHEIMER'S
SCHIZOPHRENIA
PARKINSON'S
LEADERSHIP
ORGANIZATION
ANNUAL REPORT 2015
ANNUAL REPORT
2017
Annual Report
2018
4 39 2014
ANNUAL REPORT 2014
WE STRIVE FOR
GLOBAL LEADERSHIP
IN PSYCHIATRY
AND NEUROLOGY
BY IMPROVING
THE LIVES
OF PATIENTS
ANNUAL REPORT 2016
ANNUAL REPORT 2013

Alder represents a compelling opportunity to deliver long term sustainable growth

Alder-related items impacting the 2019 guidance

- **Transaction costs:** Approximately DKK 200 million
- **Integration and retention costs:** DKK 400-500 million*
- **Lundbeck's share of Alder's net burn:** DKK 325-400 million
- Core EBIT only impacted by Alder's operational costs

- Launch of eptinezumab will strengthen Lundbeck's growth profile for years to come
- Short term earnings dilution from investments in LCM and launch activities
  - U.S. sales force of around 100 people being established
  - Several LCM activities being evaluated
- Patent protection until mid-2030´s
- Lundbeck's balance sheet remains solid post transaction

Strong financial performance

- Strong growth for strategic brands of 29%
- Onfi decline of 69% in line with expectations
- Disciplined cost spend as OPEX up only 2.5%
- Financial performance leads to raised guidance

DKKm	9M 2019	Δ % y/y	Q3 2019	Δ % y/y
Revenue	**12,615**	***(9%)***	**4,135**	***(11%)***
Gross margin	*80.7%*	*-0.6pp*	*80.7%*	*-*
Gross margin (core)	*85.7%*	*-*	*85.9%*	*+0.9pp*
Operating expenses	6,862	*2%*	2,327	*2%*
SG&A	4,636	*5%*	1,598	*8%*
R&D	2,226	*(3%)*	729	*(11%)*
Other operating items, net	-	*-*[1)]	-	*-*[1)]
EBIT	**3,317**	***(26%)***	**1,012**	***(30%)***
EBIT margin	*26.3%*	*-5.7pp*	*24.5%*	*-6.8pp*
Core EBIT margin	*31.8%*	*-5.7pp*	*31.0%*	*-4.6pp*
Core EBIT	**4,010**	***(23%)***	**1,281**	***(22%)***
Tax rate	*27%*	*-*	*27%*	*-*
EPS	**12.27**	***(25%)***	**3.78**	***(29%)***

1) An expense of DKK 165 million in 9M 2018 and an expense of DKK 0 million in Q3 2018

Lundbeck's financial guidance for 2019 raised

- Continued strong growth for strategic brands
- Expected negative impact from generic erosion
- Effects from hedging is a loss of around DKK 300 million
- OPEX from Alder and Abide[#] is included in guidance range
- Net financial items of DKK -100 - 0 million expected in 2019
- Unchanged currencies from mid-October 2019

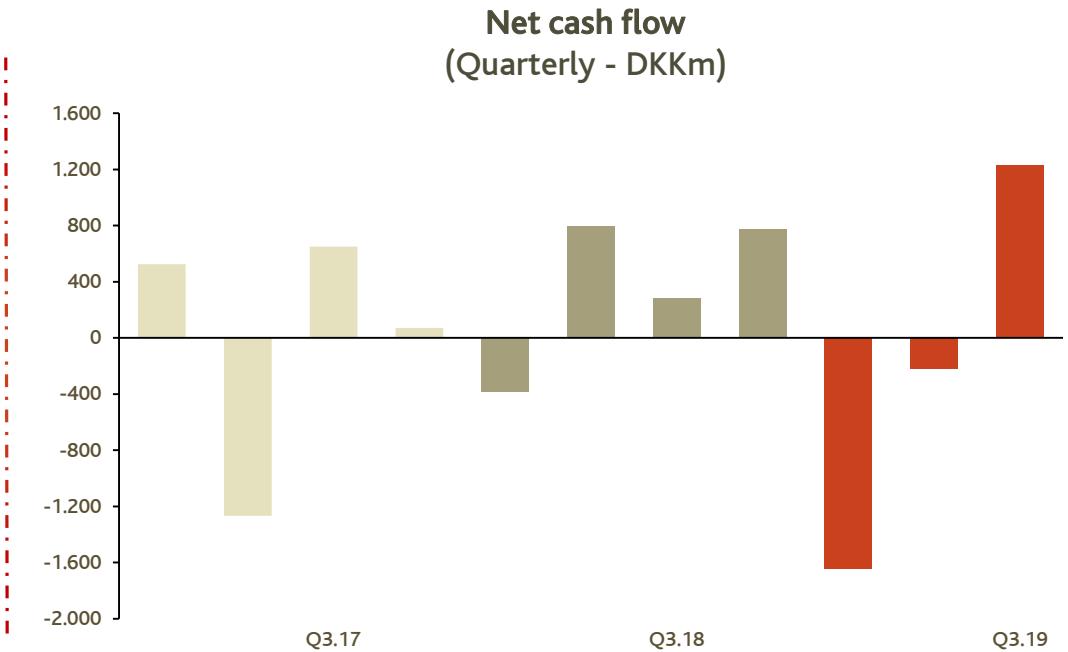
2019 financial guidance

	2018 (DKKm)	Previous 2019e (DKKbn)	Revised 2019e (DKKbn)	~Δ % (y/y)
Revenue	18,117	16.3 – 16.7	**16.7 – 16.9**	*-8% – -7%*
Core EBIT	6,158	4.6 – 5.0	**4.8 – 5.1**	*-22% – -17%*
Implied core EBIT margin	*34.0%*	*~28% – 31%*	***~28 – 31%***	-
EBIT	5,301	3.2 – 3.6	**3.4 – 3.7**	*-36% – -30%*
Implied EBIT margin	*29.3%*	*~19% – 22%*	***~20% – 22%***	-
Tax rate	*26.1%*	*26% – 28%*	***26% – 28%***	-

[#]) Now Lundbeck La Jolla Research Center

Solid financial position provides flexibility

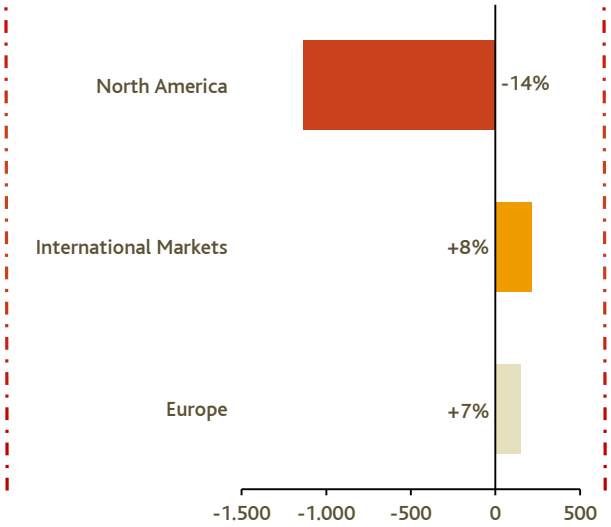
- **Net cash flow:** Down DKK 1,326 million to DKK -632 million
- **FY 2019 cash flow** will be negatively impacted by
  - Lower EBITDA
  - Acquisition of Abide and Alder
  - Dividend payout for 2018
  - Payment of DoJ settlement
- **Net debt:** Expected to reach DKK ~7 billion (USD ~1bn) by end-2019



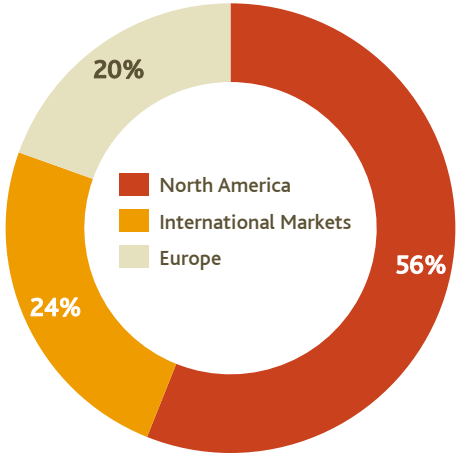
Europe and International Markets have returned to strong dynamic growth

- Strong improvement in both growth and profitability in **Europe**
- **International Markets** shows solid growth driven by Australia, Japan, Korea and South East Asia
- **North America** impacted by generic erosion, mainly Onfi
- Largest markets are the U.S., China, Canada, Spain, Italy, France and Japan constituting >70% of sales#

Regional growth (9M 2019 - DKKm)



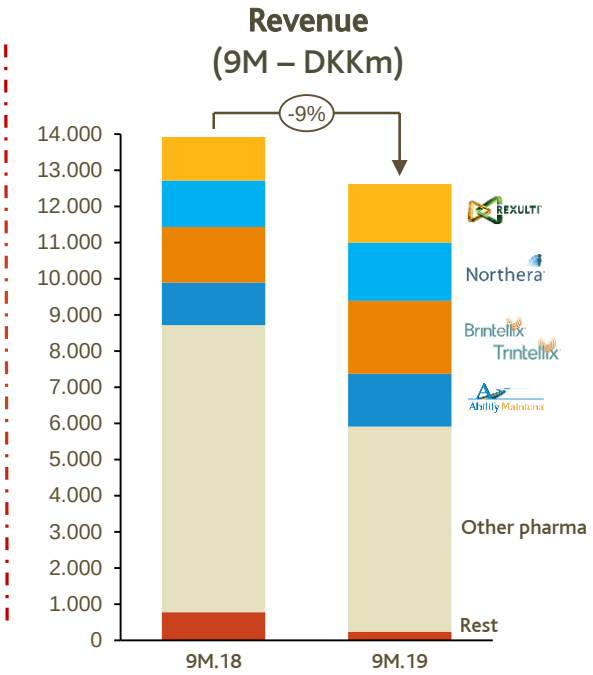
Sales by region# (9M 2019)

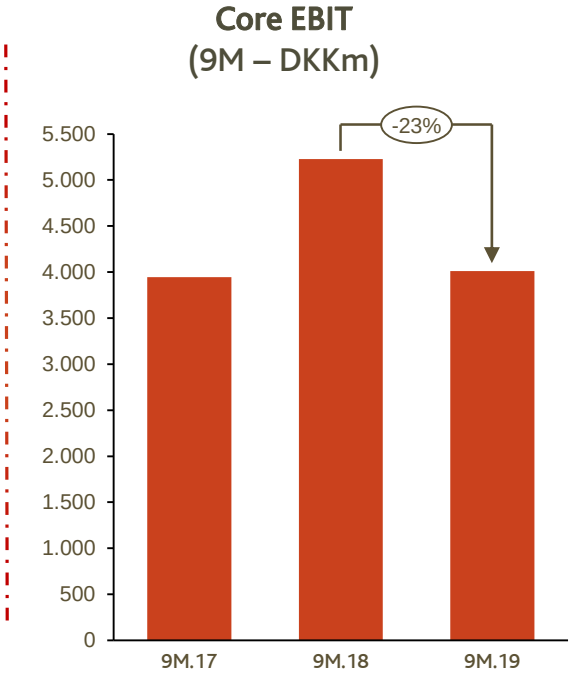


#) Excluding Other revenue and effects from hedging

9M 2019: Continued strong growth from strategic brands and negative impact from generic erosion on mature products as expected

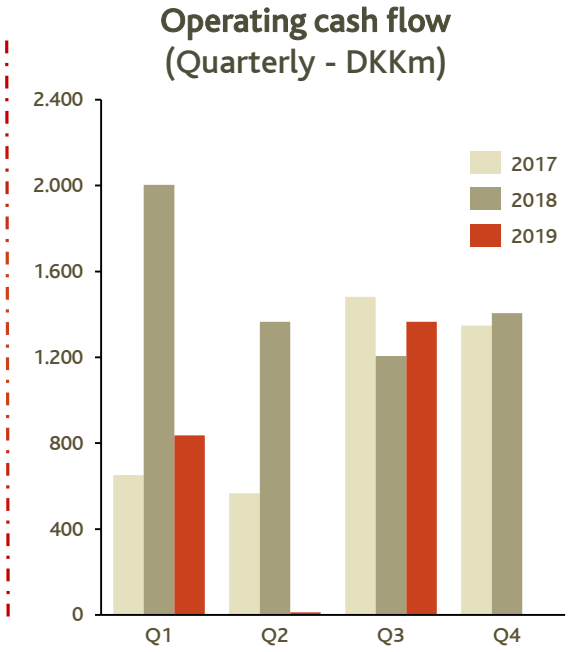
- **Revenue:** Down 9% (9% in L.C.) to DKK 12.6 billion
- Performance driven by strategic brands mitigating effect from generics
- **Other revenue:** Down 7% to DKK 433 million
- **Effects from hedging:** Loss of DKK 194 million
- **Core EBIT margin:** 31.8% vs. 37.5% in 9M 2018 following generic erosion of Onfi

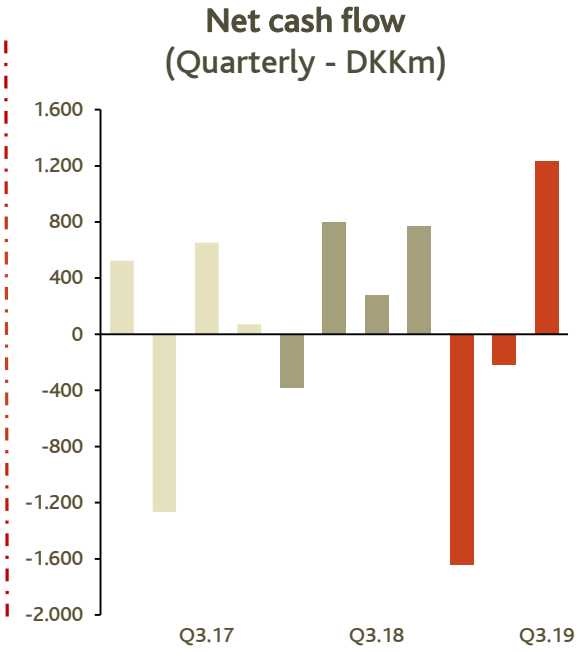




Cash flow impacted by acquisition of Abide, DoJ payment and higher dividend pay-out

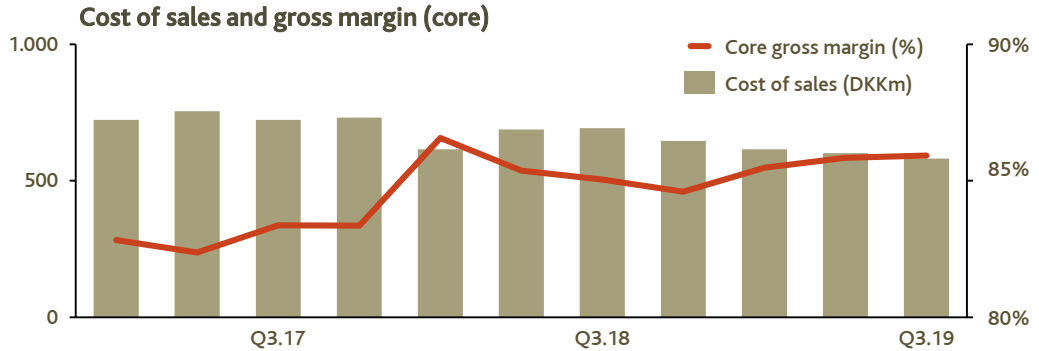
- **Cash flow from operating activities:** Declined 52% and reached DKK 2,215 million in 9M 2019 following negative impact from working capital
- **Working capital:** Payment of DoJ settlement and quarterly fluctuations in short-term liabilities
- **Financing activities:** Dividend pay-out increased from DKK 1.6 billion to DKK 2.4 billion
- **Net cash outflow:** DKK 632 million vs. an inflow of DKK 694 million last year

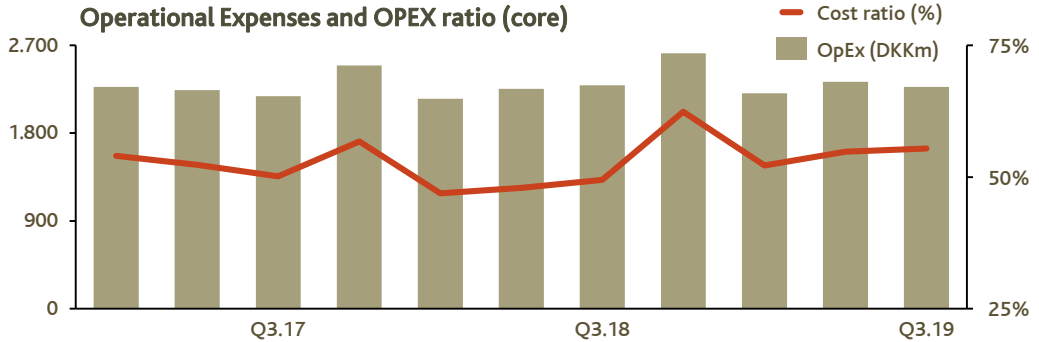




Core gross margin improved in Q3 2019 despite LOE on Onfi

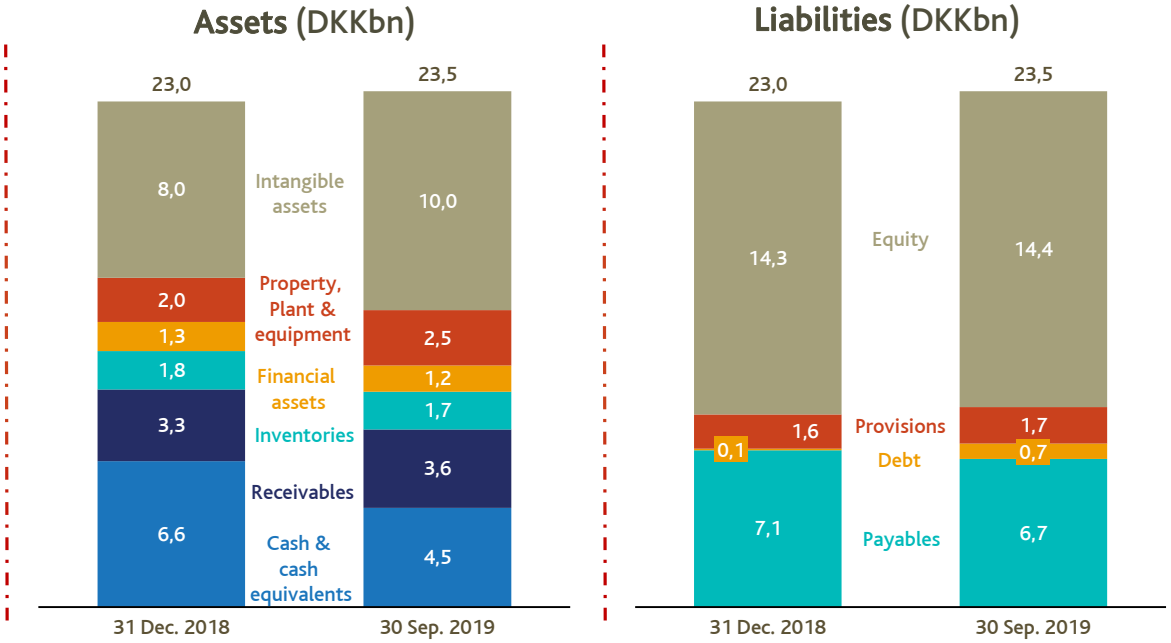
- **Cost of Sales (core):** Down 10% to DKK 1,798 million in 9M 2019
- **Gross margin (core):** Unchanged from 9M 2018
- **Operational expenses (core OPEX):** Increased 2% to DKK 6,807 million in 9M 2019





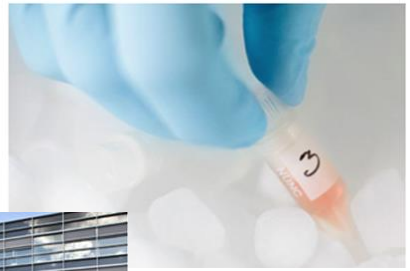
Balance sheet is strong with limited debt and strong operating cash flow

- **Cash & cash equivalents:** Declines following the acquisition of Abide, increased dividend pay-out and payment of DoJ settlement
- **Working capital:** Declines DKK 1.1bn as short term payables decline (eg. DoJ payment)
- **Interest-bearing debt:** Higher due to recognition of lease liabilities cf. IFRS 16
- Acquisition of **Alder BioPharmaceuticals** will increase leverage



Selected deliverables for 2019

- Start PoC study on Lu AF11167 in schizophrenia ✓
- Commence the launch of Rxulti/Rexulti in Europe ✓
- Pivotal data for Rexulti in bipolar mania ✗
- Headline results (PoC) for foliglurax in Parkinson's (delayed to H1 2020)
- Continue LCM activities on brexpiprazole ✓
- Obtain approval of Trintellix in Japan ✓
- Achieve FIH in 1-2 R&D projects ✓
- Execute on *Expand and Invest to Grow* ✓



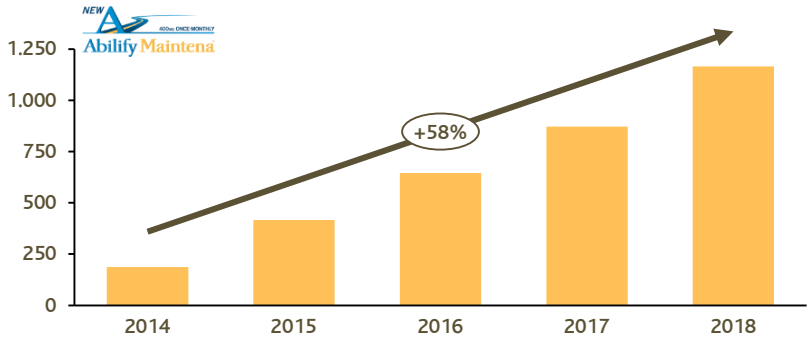
Lundbeck continues its mission to restore brain health, leveraging a strong platform and heritage to grow

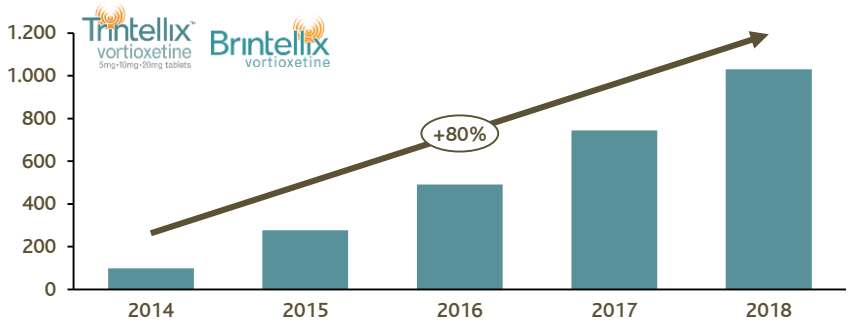
- Solid financial foundation
- Highly profitable with strong cash generation
- Solid growth across key products
- Global footprint with growth in all regions of the world
- Long-standing reputation with patient communities and physicians
- Deep scientific heritage and capabilities in CNS
- Promising early-stage pipeline
- Demonstrated track record of partnering relationships

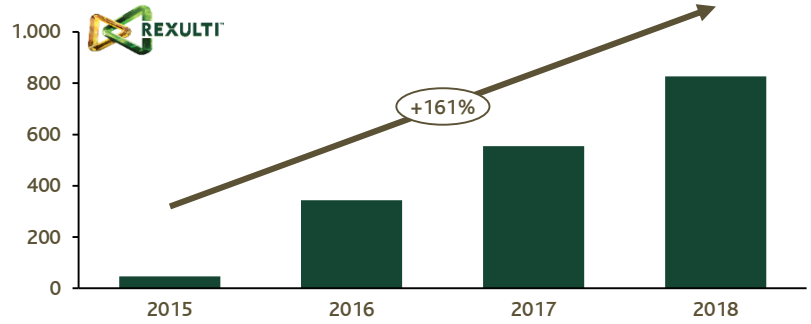
Thank you!

Lundbeck

Total molecule sales (gross) - USDm





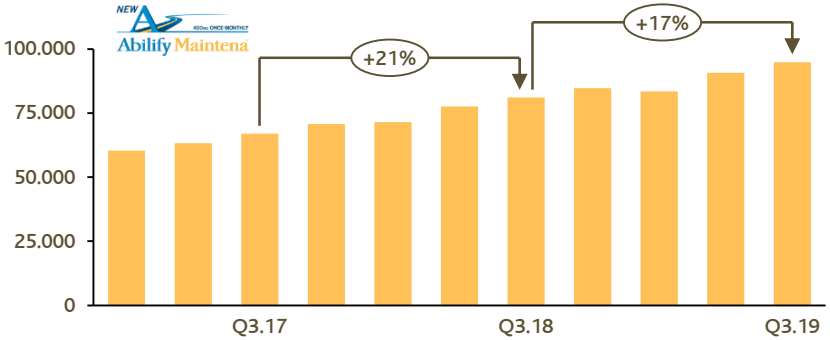


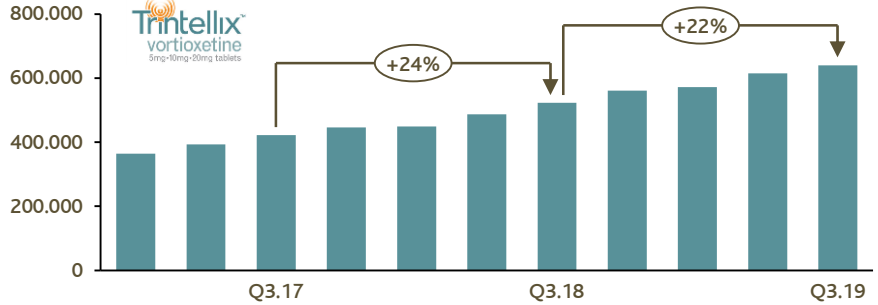
- **Abilify Maintena:** US approval (Feb. 2013); EU approval (Nov. 2013)
- **Brintellix/Trintellix:** US approval (Oct. 2013); EU approval (Dec. 2013); Japan approval (Sep. 2019)
- **Rexulti:** US approval (Jul. 2015); EU approval (Jul. 2018); Japan approval (Jan. 2018 – NOT Lundbeck territory)

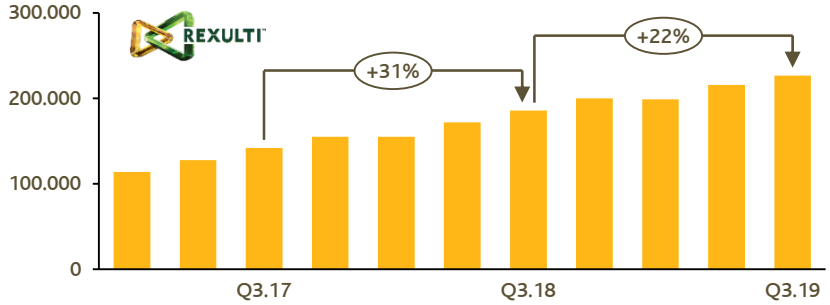
Source: IMS

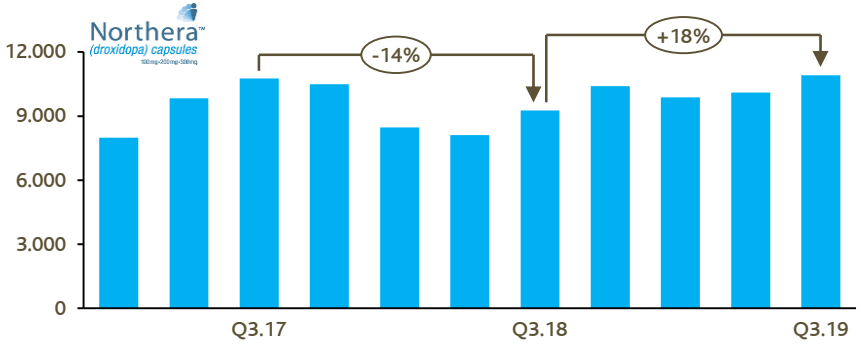
Lundbeck's strategic brands deliver strong double-digit revenue growth

Solid volume growth in the U.S. for all strategic brands







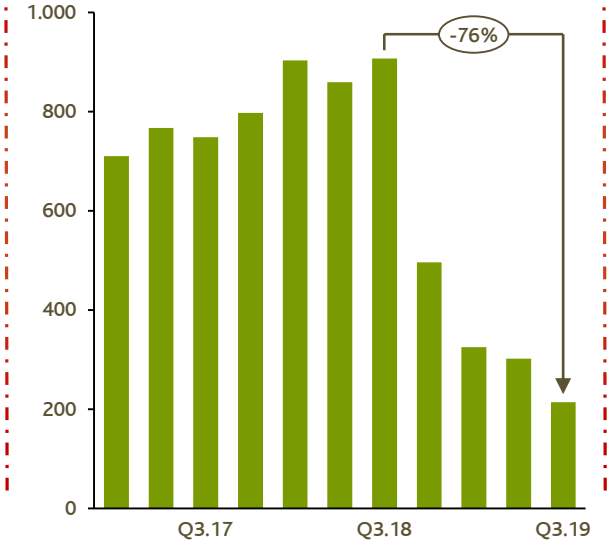


Source: Symphony Health (ref Bloomberg)

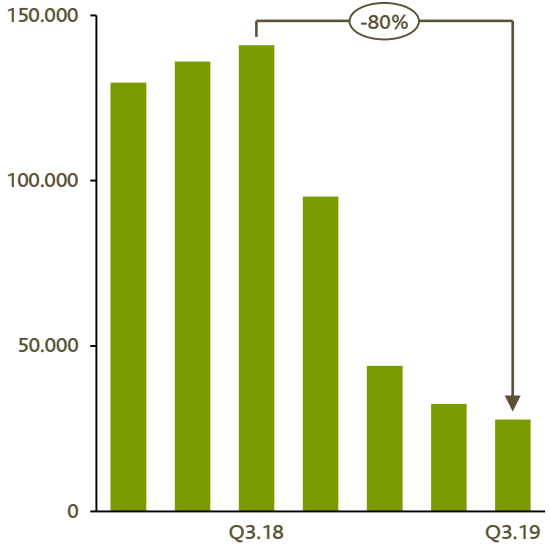
Onfi impacted negatively by introductions of generic clobazam

- Declined 69% (70% in L.C.) to DKK 840 million in 9M 2019
- Numerous generic tablets and oral suspensions launched from October 2018
- Aggressive generic pricing
- Generic versions have taken ~80% of volume since October 2018

Onfi sales
(Quarterly - DKKm)



Onfi demand
(Quarterly – TRx)



Source: Symphony Health (cf. Bloomberg)

9M 2019 and FY 2018 - Product distribution of revenue

DKKm	FY 2018	FY 2017	9M 2019	9M 2018	*Growth*	*Growth in local currencies*	*% of total*
TOTAL:							
Abilify Maintena	1,595	1,333	1,457	1,180	*23%*	*21%*	*12%*
Brintellix/Trintellix	2,182	1,663	2,023	1,543	*31%*	*28%*	*16%*
Cipralex/Lexapro	2,257	2,392	1,809	1,894	*(4%)*	*(5%)*	*14%*
Northera	1,806	1,644	1,606	1,282	*25%*	*18%*	*13%*
Onfi	3,165	3,022	840	2,669	*(69%)*	*(70%)*	*7%*
Rexulti/Rxulti	1,723	1,247	1,620	1,204	*35%*	*27%*	*13%*
Sabril	1,342	1,509	643	983	*(35%)*	*(39%)*	*5%*
Other pharmaceuticals	3,143	4,074	2,378	2,392	*(1%)*	*(2%)*	*19%*
Other revenue	662	402	433	466	*(7%)*	*(7%)*	*3%*
Effects from hedging	242	(52)	(194)	308	-	-	*(2%)*
Total revenue	**18,117**	**17,234**	12,615	13,921	***(9%)***	***(9%)***	***100%***

9M 2019 and FY 2018 - Geographic distribution of revenue - 1

DKKm	FY 2018	FY 2017	9M 2019	9M 2018	*Growth*	*Growth in local currencies*	*% of total*
NORTH AMERICA:							
Abilify Maintena	695	591	**618**	499	*24%*	*17%*	*9%*
Trintellix	1,239	974	**1,103**	853	*29%*	*22%*	*16%*
Northera	1,806	1,644	**1,606**	1,282	*25%*	*18%*	*23%*
Onfi	3,165	3,022	**840**	2,669	*(69%)*	*(70%)*	*12%*
Rexulti	1,702	1,245	**1,585**	1,193	*33%*	*25%*	*23%*
Sabril	1,342	1,509	**643**	983	*(35%)*	*(39%)*	*9%*
Other pharmaceuticals	794	1,688	**542**	593	*(8%)*	*(13%)*	*8%*
Total revenue	**10,743**	**10,673**	**6,937**	**8,072**	***(14%)***	***(19%)***	***100%***

9M 2019 and FY 2018 - Geographic distribution of revenue - 2

DKKm	FY 2018	FY 2017	9M 2019	9M 2018	*Growth*	*Growth in local currencies*	*% of total*
EUROPE:							
Abilify Maintena	770	637	715	587	*22%*	*21%*	*30%*
Brintellix	547	376	523	396	*32%*	*31%*	*22%*
Cipralex	572	643	422	467	*(10%)*	*(10%)*	*17%*
Rexulti/Rxulti	-	-	7	-	-	-	-
Other pharmaceuticals	1,081	1,149	750	819	*(8%)*	*(9%)*	*31%*
Total revenue	**2,970**	**2,805**	**2,417**	**2,269**	***7%***	***6%***	***100%***
INTERNATIONAL MARKETS:							
Abilify Maintena	130	105	124	94	*32%*	*34%*	*4%*
Brintellix	396	313	397	294	*35%*	*39%*	*13%*
Cipralex/Lexapro	1,552	1,582	1,283	1,324	*(3%)*	*(4%)*	*42%*
Rexulti	21	2	28	11	*162%*	*160%*	*1%*
Other pharmaceuticals	1,401	1,404	1,190	1,083	*10%*	*9%*	*40%*
Total revenue	**3,500**	**3,406**	**3,022**	**2,806**	***8%***	***8%***	***100%***

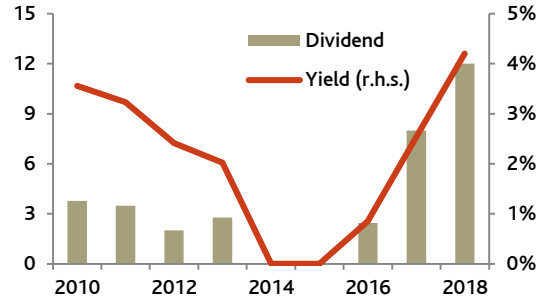
9M 2019 and FY 2018 - Cash generation

DKKm	9M 2019	9M 2018	FY 2018
Cash flows from operating activities	2,215	4,575	5,981
Cash flows from investing activities	(398)	(2,298)	(2,907)
Cash flows from operating and investing activities (free cash flow)	**1,817**	**2,277**	**3,074**
Cash flows from financing activities	(2,449)	(1,583)	(1,607)
Net cash flow for the period	**(632)**	**694**	**1,467**
Cash, bank balances and securities, end of period	4,512	5,356	6,635
Interest-bearing debt	(488)	-	-
Net cash/(net debt)	**4,024**	**5,356**	**6,635**

9M 2019 and FY 2018 - Balance sheet and dividend

DKKm	30.09.2019	31.12.2018
Intangible assets	9,962	8,023
Other non-current assets	3,706	3,339
Current assets	9,803	11,649
Assets	**23,471**	**23,011**
Equity	14,367	14,251
Non-current liabilities	1,878	1,184
Current liabilities	7,226	7,576
Equity and liabilities	**23,471**	**23,011**
Cash and bank balances	2,975	3,605
Securities	1,537	3,030
Interest-bearing debt	(488)	-
Interest-bearing debt, cash, bank balances and securities, net, end of period	**4,024**	**6,635**

Dividend (DKK)



- Dividend payout of DKK 12.00 per share for 2018, corresponding to a payout ratio of 61%
  - A total of DKK 2.4 billion and a yield of 4.2%*
- Dividend policy: Payout ratio of 30-60% from 2019

*Based on the share price of DKK 285.40

Costs – Full year figures

DKKm	2018	2017	2016	2015	*2018 (Δ %)*	*2017 (Δ %)*
Revenue	18,117	17,234	15,634	14,594	*5%*	*10%*
Cost of sales	3,456	3,881	4,082	5,395	*(11%)*	*(5%)*
Sales & Distribution costs	5,277	5,649	5,488	6,706	*(7%)*	*3%*
Administrative expenses	762	833	805	1,160	*(9%)*	*3%*
R&D costs	3,277	2,705	2,967	8,149	*21%*	*(9%)*
Total costs	12,772	13,068	13,342	21,410[1)]	*(2%)*	*(2%)*
EBIT	5,301[2)]	4,408[2)]	2,292	(6,816)	*20%*	*92%*
Core EBIT	6,158	5,115	3,477	847	*20%*	*47%*
Cost of sales	*19%*	*23%*	*26%*	*37%*	-	-
Sales & Distribution costs	*29%*	*33%*	*35%*	*46%*	-	-
Administrative expenses	*4%*	*5%*	*5%*	*8%*	-	-
R&D costs	*18%*	*16%*	*19%*	*56%*	-	-
EBIT margin	*29%*	*26%*	*15%*	*(47%)*	-	-

Included are 1) Restructuring costs and impairment of product rights of around DKK 7bn. 2) Includes Other operating items, net

Financial terms and territory structure of the Otsuka alliance entered in November 2011

Milestone payments

Payment to: Otsuka / Lundbeck

	Abilify Maintena	Rexulti	Selincro
Development milestones/upfront	USD 200m	USD 600m[3)]	EUR 105m*
Approval milestones	USD 275m[1)]	USD 300m[2)]	Un-disclosed
Sales milestones	Up to USD 425m depending on sales development		Un-disclosed

1) USD 100m upon US approval, USD 75m upon EU approval in schizophrenia, and USD 50m US and EU for a second indication. 2) USD 100m (US) and USD 50m (EU) for each of the two first indications
3) Development milestones of up to USD 600m after which shared development costs between parties. 4) USD 125m, USD 25m and USD 50m for first indication in the US, EU and Japan respectively. Second indication gives USD 50m, USD 25m and USD 25m, respectively.

Lundbeck's share of revenue and costs

Otsuka / Lundbeck

	Abilify Maintena	Rexulti	Selincro
USA	20%	45%	-
EU-5, Nordic and Canada	50%	50%	-
Other Lundbeck territories	65%**	65%**	Un-disclosed

* Includes sales milestones
** All regions except Asia, Turkey and Egypt
*** All regions except Thailand and Vietnam

★ Selincro for Japan added to the alliance in October 2013

For more information, please contact Investor Relations

- Listed on the Copenhagen Stock Exchange since 18 June 1999
- Deutsche Bank sponsored ADR programme listed on NASDAQ (U.S. OTC) effective from 18 May 2012
- For additional company information, please visit Lundbeck at: www.lundbeck.com

Number of shares	199,136,725
Treasury shares	366,019 (0.2%)
Insider holdings	122,665 (0.06%)
Classes of shares	1
Restrictions	None
ISIN code	DK0010287234
Ticker symbol	LUN DC/LUN.CO (Bloomberg/Reuters)
ADR programme	Sponsored level 1
ADR symbol	HLUYY
Ratio	1:1

IR contact

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Financial calendar

FY 2019	6 February 2020
AGM	24 March 2020
Q1 2020	12 May 2020
6M 2020	13 August 2020
9M 2020	3 November 2020