



Investor & Analyst Presentation - 2019

August 2019

Lundbeck



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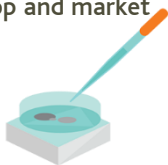


Lundbeck in brief

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



EMPLOYEES



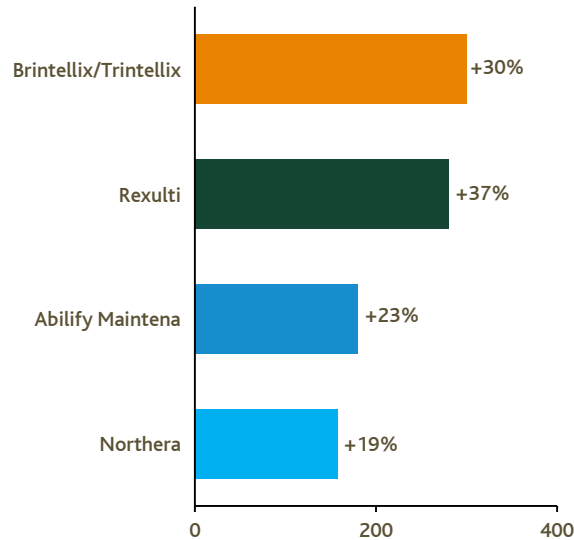
H1 2019 highlights: Strong performance of strategic brands and executing on our *Expand and Invest to Grow* strategy



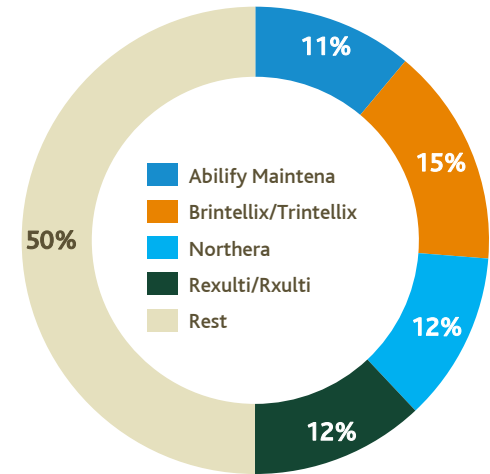
Lundbeck's four strategic brands* added DKK 0.9 billion in sales in H1 2019 compared to H1 2018

- ★ **Strategic brands*:** Up 27% (22% in L.C.) to DKK 4,289 million representing 50% of revenue#
- ★ **Brintellix/Trintellix:** Up 30% to DKK 1,299 million
- ★ **Rexulti/Rxulti:** Up 37% to DKK 1,032 million
- ★ **Abilify Maintena:** Up 23% to DKK 951 million
- ★ **Northera:** Up 19% to DKK 1,007 million

Strategic brands' growth
(H1 2019 - DKKm)



Sales by product#
(H1 2019)

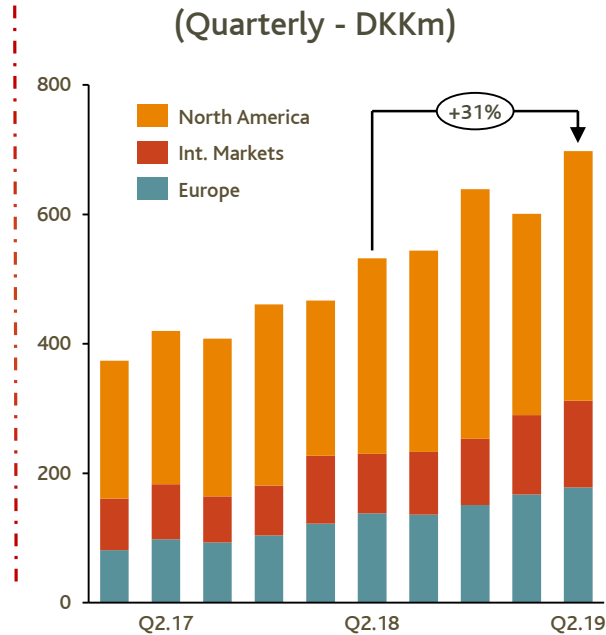


*) Abilify Maintena, Brintellix/Trintellix, Northera and Rexulti/Rxulti
#) Excluding effects from hedging

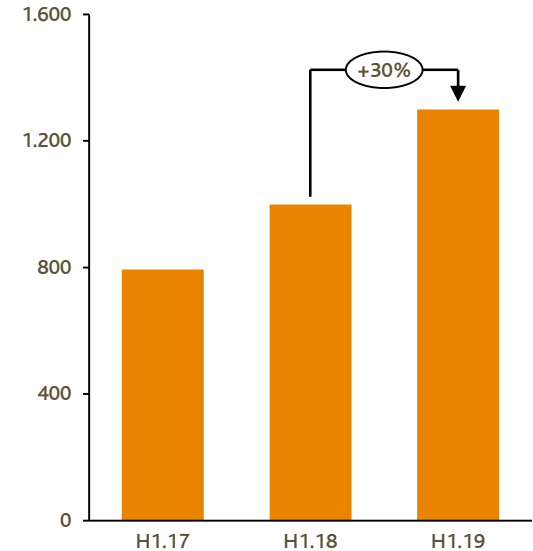
Brintellix/Trintellix continues consistent strong momentum

- ★ Grew 30% (27% in L.C.) to DKK 1,299 million in H1 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 26% in Q2 2019¹⁾
- ★ Launch in China progresses as planned
- ★ Approval in Japan expected in Q3

Brintellix/Trintellix sales
(Quarterly - DKKm)



Brintellix/Trintellix sales
(H1 - DKKm)

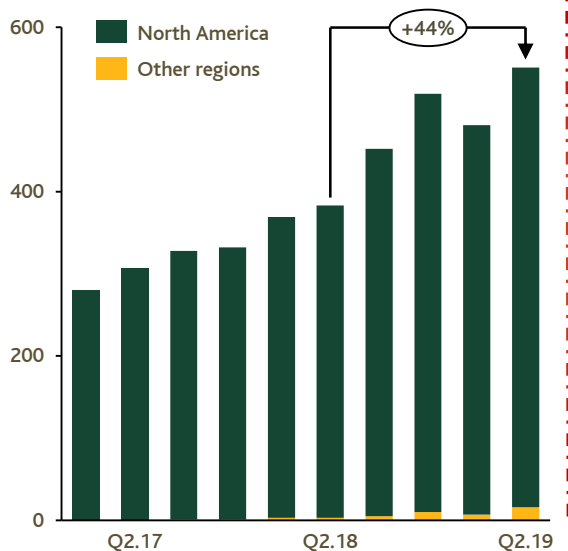


1) Symphony Health (cf. Bloomberg)

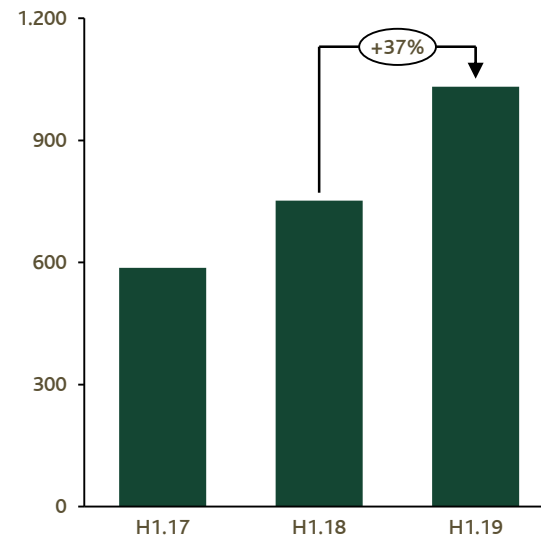
Rexulti shows significant growth driven by demand and roll-out in new markets continues

- ★ Grew 37% (28% in L.C.) to DKK 1,032 million in H1 2019
- ★ In the U.S., volume is up 26% in Q2¹⁾
- ★ Launched in North America, selected European markets and Australia, Mexico and Saudi Arabia
- ★ Phase III programme in PTSD planned to start in Q4
- ★ Phase II study in BPD planned to commence in Q4

Rexulti sales
(Quarterly - DKKm)



Rexulti sales
(H1 - DKKm)



¹⁾ Symphony Health (cf. Bloomberg)
BPD: Borderline Personality Disorder

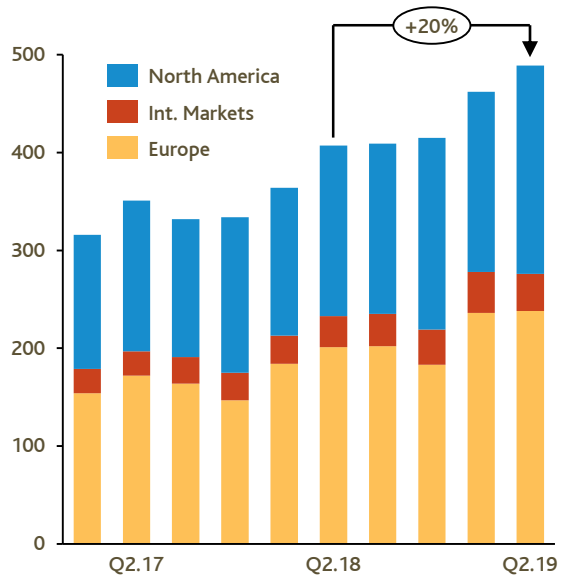
Lundbeck's share of revenue

Lundbeck's share of revenue

Abilify Maintena continues its solid growth

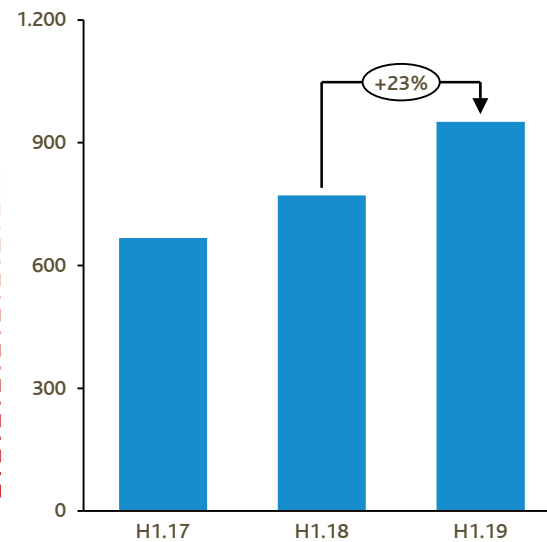
- ★ Grew 23% (20% in L.C.) to DKK 951 million in H1 2019
- ★ Largest markets are the U.S., Spain, Canada, Australia and France which in general also are the main drivers of growth
- ★ Abilify Maintena is Lundbeck's best selling product in Europe
- ★ LAI market continues double-digit growth to USD 2.5bn (H1)
- ★ Abilify Maintena's share of the LAI market is 17% compared to 16% in FY2018¹⁾

Abilify Maintena sales
(Quarterly - DKKm)



Lundbeck's share of revenue

Abilify Maintena sales
(H1 - DKKm)



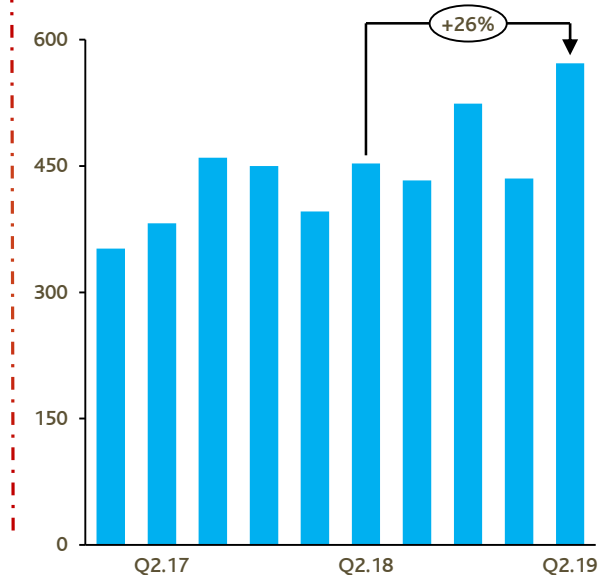
Lundbeck's share of revenue

¹⁾ Reported net sales of atypical LAIs

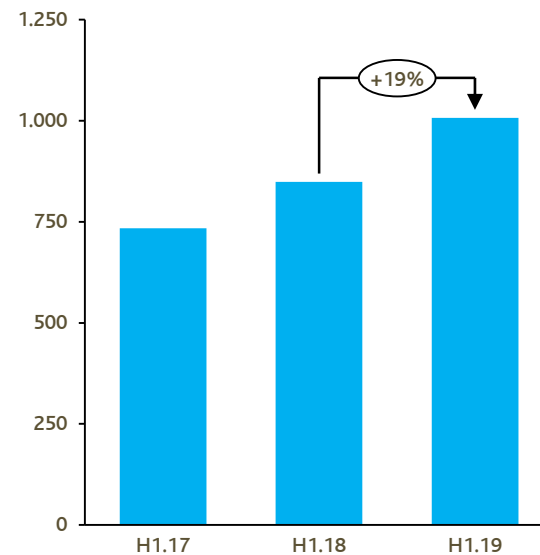
Northera shows solid growth in sales and demand

- ★ Grew 19% (11% in L.C.) to DKK 1,007 million in H1 2019
- ★ Volume is up 24%¹⁾
- ★ In general, Northera sales are impacted by normal quarterly fluctuations driven by seasonality and in specialty pharmacies' buying pattern
- ★ Lundbeck only promotes Northera in the U.S.

Northera sales
(Quarterly - DKKm)



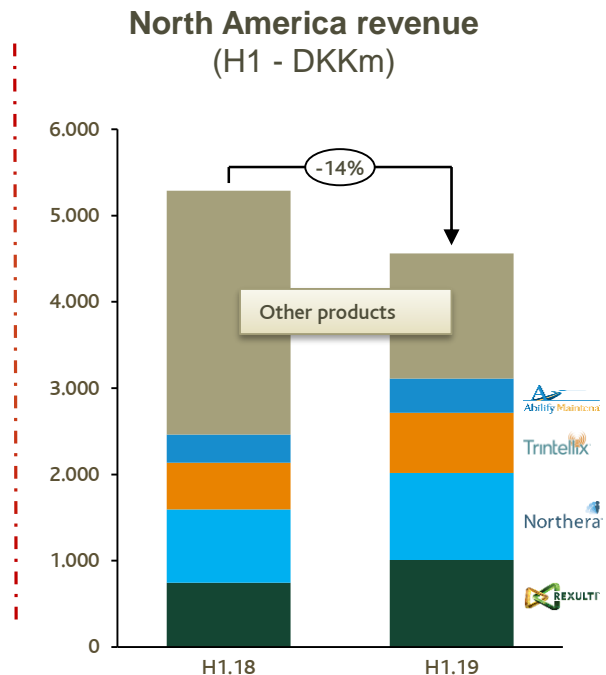
Northera sales
(H1 - DKKm)



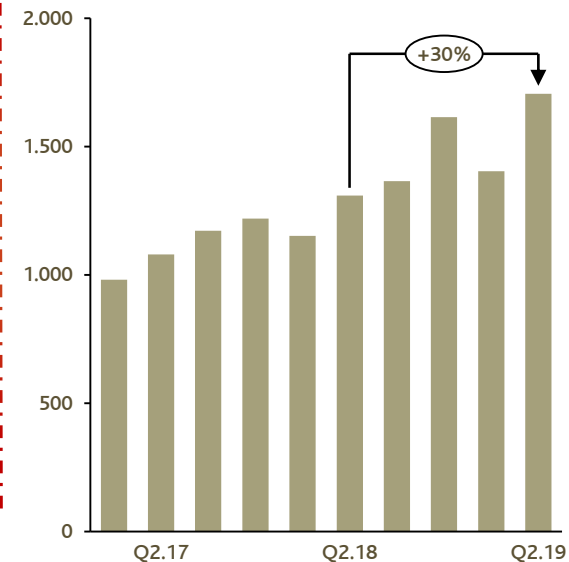
¹⁾ Symphony Health (cf. Bloomberg)

North America – strategic brands up 26%

- ★ Declined 14% (19% in L.C.) to DKK 4,562 million in H1 2019
- ★ Impacted by generic introductions of clobazam in October 2018
- ★ Excluding Onfi, sales up close to 12% in H1 2019
- ★ Strategic brands# grew 26% to DKK 3,110 million and constituted 68% of revenue in H1 2019



North America – strategic brands (Quarterly – DKKm)

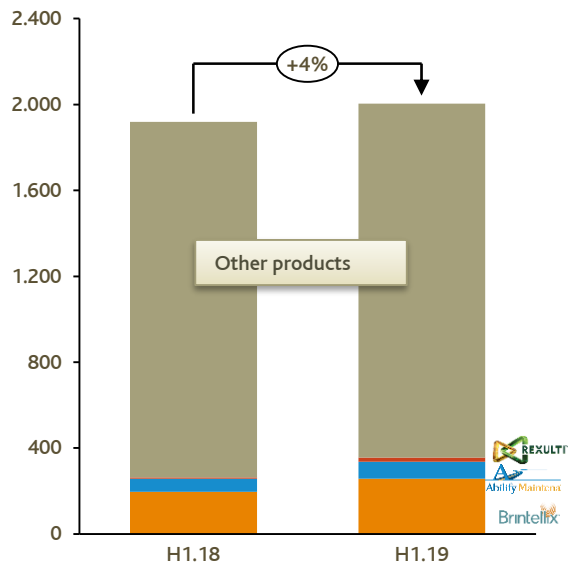


#) Ability Maintenance, Northera, Rexulti and Trintellix

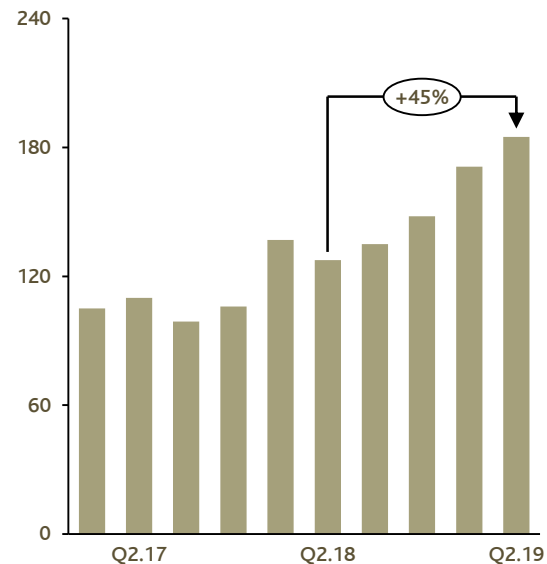
International Markets - strategic brands up 35%

- ★ Grew 4% (5% in L.C.) to DKK 2,004 million in H1 2019
- ★ Strategic brands# grew by 35% to DKK 356 million and constituted 18% of sales in H1 2019
- ★ Rexulti increases from DKK 6 million to DKK 19 million
- ★ Cipralelex/Lexapro is down 10% to DKK 851 million
- ★ Main markets are Brazil, China, Japan and South Korea constituting ~50% of sales in the region
- ★ Trintellix submitted in Japan

International Markets revenue (H1 - DKKm)



International Markets – strategic brands (DKKm)

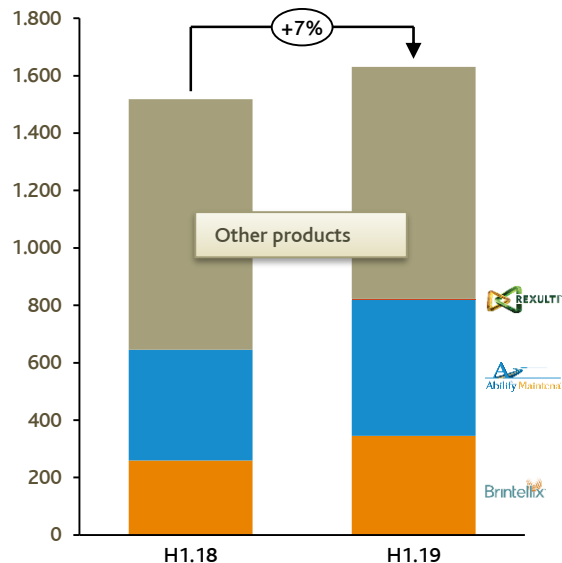


*) Abilify Maintena, Rexulti and Brintellix/Trintellix

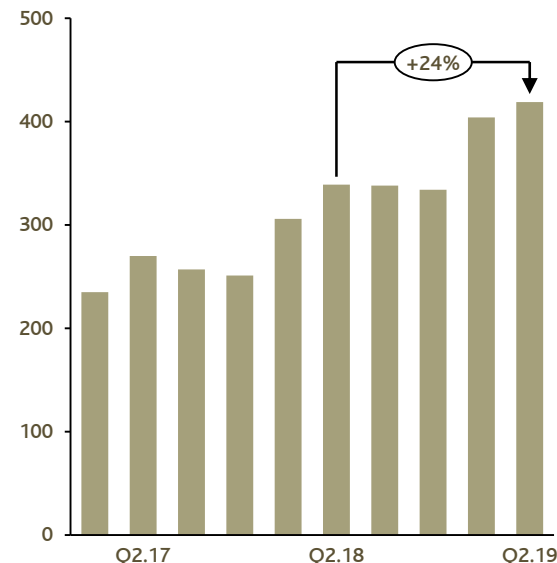
Europe – strategic brands up 28%

- ★ Grew 7% (7% in L.C.) to DKK 1,631 million in H1 2019
- ★ Strategic brands# grew 28% to DKK 823 million and constituted 50% of sales in H1 2019
- ★ Continued strong performance for both Abilify Maintena and Brintellix
- ★ Largest markets are France, Italy and Spain constituting 45% of sales in the region

Europe revenue
(H1 - DKKm)




Europe – strategic brands
(Quarterly – DKKm)



#) Abilify Maintena, Rxulti/Rexulti and Brintellix

Promising early-stage pipeline with efforts under way to ensure depth in all phases of development

|  Project |  Indication |  Phase I |  Phase II (PoC) |  Phase III (pivotal) |  Exp. filing |
|---|--|--|--|---|---|
| Brexpiprazole | Agitation in Alzheimer's disease | | | ★ | ~2021 |
| Brexpiprazole | PTSD | | | ★ | ~2024 |
| Brexpiprazole | Borderline Personality Disorder | | ★ | | ≥2025 |
| Foliglurax (MGLUR4 PAM) | Parkinson's | | ★ | | ~2025 |
| Lu AF11167 (PDE 10 inhibitor) | Schizophrenia | | ★ | | ≥2025 |
| ABX-1431 (MGLLi) | Tourette's | | ★ | | ≥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 |
| ABX-1431 (MGLLi) | Neuropathic pain | ★ | | | ≥2025 |

mGluR4 PAM: Positive Allosteric Modulator of metabotropic glutamate receptor 4.

PDE: Phosphodiesterases.

MGLLi: Monoacylglycerol lipase inhibitor ("MAGlipase")

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&D¹⁾ and sales milestones²⁾

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



- ★ 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

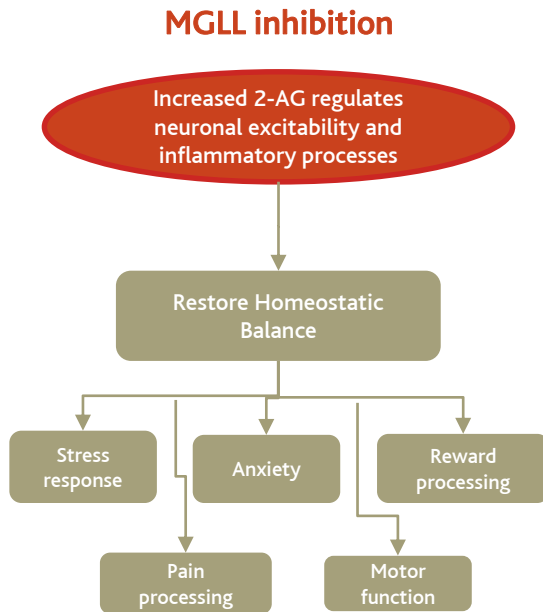
Lundbeck La Jolla Research Center now established

- ★ Transition of Abide to pure discovery site is completed
- ★ ABX-1431 currently in phase IIa progressing as planned
 - ★ Headline results due 2020
- ★ Strong progress of the early portfolio
 - ★ FIH for next project expected in 2020



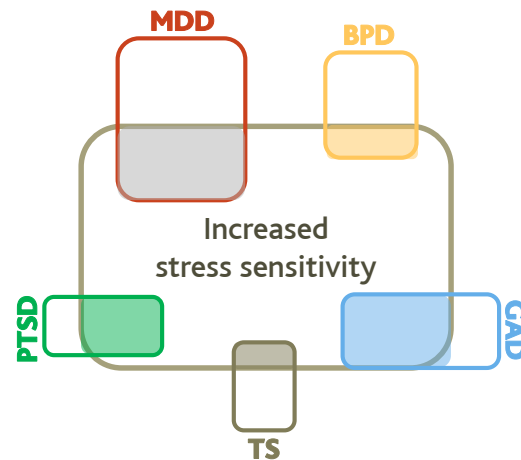
First Target: Endocannabinoid modulation through MGLL inhibition - A compelling therapeutic target for a wide range of CNS diseases

- ★ 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 ABX-1431 is a potent, selective first-in-class MGLLi in clinical development in two indications
- ★ Two additional endocannabinoid modulators advancing to the clinic through 2020



Multiple future potential indications in psychiatry and neurology

Potential to use biomarkers to enrich patient populations



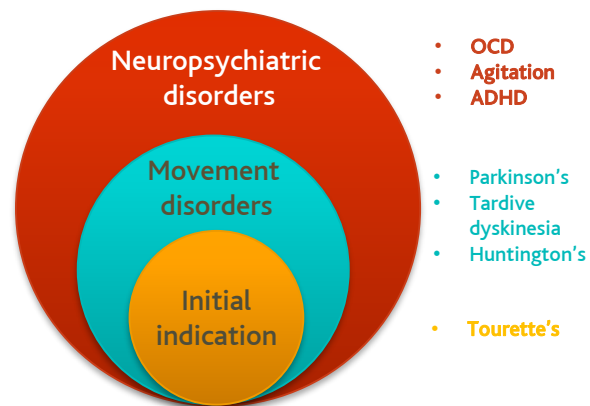
ABX-1431: First-In-Class drug with broad potential in CNS

- ★ ABX-1431 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 disease¹⁾

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

ABX-1431: First-in-Class drug with broad potential in CNS



1) NIH - National Institute of Neurological Disorders and Stroke

Brexpiprazole in pivotal programme for the treatment of agitation in Alzheimer's

- ★ Two studies in the pivotal programme finalized
- ★ A third study commenced In June 2018 following conclusions from a FDA Type C meeting, where...
- ★ ...one study was considered positive and one study was considered supportive by the agency
- ★ *Fast Track* designation granted February 2016

Ongoing phase III study¹:

- ★ Compares the efficacy of 2 doses of brexpiprazole with placebo in subjects with agitation associated with dementia of the Alzheimer's type
- ★ ~225 participants
- ★ **Primary endpoint:** Cohen-Mansfield Agitation Inventory (CMAI) total score from baseline to week 12 visit
- ★ Study initiated in May 2018

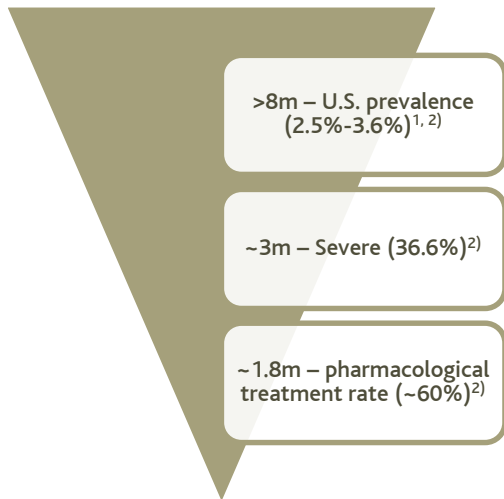
Agitation in Alzheimer's (AAD)

- ★ >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

1) NCT03548584

Brexpiprazole to enter a pivotal programme in PTSD during Q4 2019

PTSD epidemiology



PoC study* showed...

- ★ Combination of brexpiprazole and sertraline demonstrated improvement in symptoms of PTSD versus placebo ($p < 0.01$) on the primary endpoint (CAPS-5 total score³⁾)
- ★ The efficacy supported by multiple secondary endpoints
- ★ The overall safety and tolerability of brexpiprazole were good

Planned pivotal programme:

- ★ End-of-phase-II meeting with FDA provide the basis for trial design
- ★ 2-arm flexible dose
 - ★ N=550 adult patients
- ★ 3-arm fixed dose
 - ★ N=700 adult patients
- ★ Primary endpoint: CAPS-5³⁾
- ★ Treatment period: 12 weeks
- ★ Expected completion date: 2022

1) Nature Reviews Disease Primers; Vol 1, 2015. 2) National Institute of Mental Health

*) NCT03033069

3) Clinician-Administered PTSD Scale for DSM-5 (CAPS-5)

Brexpiprazole to enter PoC study in Borderline Personality Disorder (BPD)

BPD epidemiology

~5m – U.S. prevalence (1.6%, but likely higher)¹

~2.4m – diagnosis rate (45%)

~1.7m – pharmacological treatment rate (~70%)²

Borderline Personality Disorder (BPD)

- ★ Dysfunctions in the serotonergic and dopaminergic systems is considered as possible causes for symptoms associated with BPD³
- ★ Pharmacotherapy focuses on key symptoms (aggression, irritability, depressed mood, behavioural dyscontrol and affective dysregulation, anxiety, psychoticism and hostility) which brexpiprazole is hypothesized to address
- ★ No drugs approved for BPD

Planned PoC study:

- ★ 2-arm flexible dose
 - ★ N=200 adult patients
- ★ Primary endpoint: ZAN-BPD⁴
- ★ Secondary endpoint: CGI-S
- ★ Flexible dose of 2-3 mg
- ★ 12 weeks

Ongoing IIT trial⁵

- ★ N=80
- ★ 1-2 mg brexpiprazole
- ★ Primary endpoint: ZAN-BPD[#]
- ★ Expected completion date: April 2020

1) Grant BF, Chou SP, Goldstein RB, et al. Prevalence, correlates, disability, and comorbidity of DSM-IV borderline personality disorder: results from the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions. *J Clin Psychiatry* 2008; 69:533.
2) Bridler et al (2015) and Zanarini et al. (2004 and 2015)

3) Friedel RO: Dopamine dysfunction in borderline personality disorder: a hypothesis. *Neuropsychopharmacology* 2004; 29:1029–1039 and Hansenne M et al: 5-HT1A dysfunction in borderline personality disorder. *Psychol Med* 2002; 32:935–941

4) Zanarini Rating Scale for Borderline Personality Disorder (ZAN-BPD)

5) NCT03418675. Sponsor: University of Chicago. Otsuka Pharmaceuticals is co-sponsor

Comprehensive LCM programme ongoing for brexpiprazole for further product value expansion

Brexpiprazole

- Several clinical programmes ongoing to address unmet medical needs and aiming for product value maximation

Agitation in Alzheimer's

- Programme to compare the efficacy of 2 doses (2 mg and 3 mg) of brexpiprazole with placebo in subjects with agitation associated with dementia of the Alzheimer's type (n = 225) (NCT03548584, NCT03594123 (12-week extension study)). Study completion date: December 2020 (cf. Clinicaltrials.gov)

Post Traumatic stress Disorder (PTSD)

- Two pivotal studies to be initiated. 1) 2-arm flexible dose (n = 550). 2) 3-arm fixed dose (n = 700). Primary endpoint in both studies is CAPS-5

Borderline Personality Disorder (BPD)

- A PoC phase II study to be initiated. 2-arm flexible dose (n = 200)

Adolescents

- To determine the safety and efficacy of brexpiprazole monotherapy in the treatment of adolescents with schizophrenia (n = 387) (NCT03198078). Study completion date: April 2020 (cf. Clinicaltrials.gov)
- To further characterize the long-term safety and tolerability of brexpiprazole in adolescents with schizophrenia (n = 350) (NCT03238326). Study completion date: December 2022 (cf. Clinicaltrials.gov)

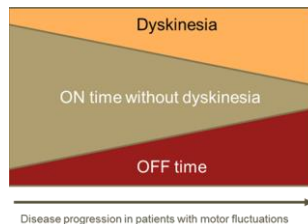
Upcoming events

- To commence pivotal programme in PTSD and PoC phase II study in BPD

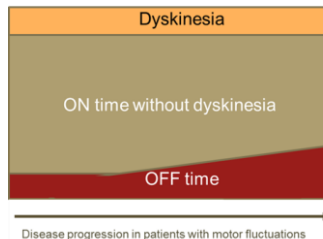
Foliglurax – an interesting new pipeline asset currently in PoC testing in Parkinson's patients

- ★ 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



With addition of foliglurax (illustrative)



Motor complications of levodopa

- ★ PD-LID is the most important unmet medical need after disease modification in Parkinson's²⁾
- ★ 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,

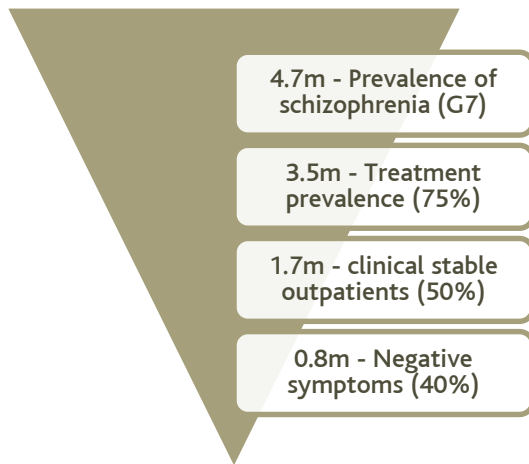
PD-LID: Parkinson's Disease – Levodopa-Induced Dyskinesia

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

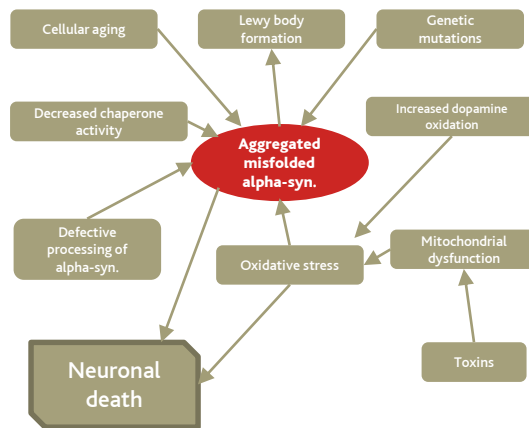
Source: Decision Resource; Schizophrenia | Landscape & Forecast 2018

*) 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)



Ongoing phase I study¹:

- ★ 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

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

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 D₁- and D₂-type dopamine receptors
- ★ D₁/D₂-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 study¹:

- ★ 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

ABX-1431 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 study¹:

- ★ Designed to identify a titration regimen of ABX-1431
- ★ ~38 adult patients with peripheral neuropathic pain
- ★ The efficacy of ABX-1431 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 up to 32 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

Finance



Robust profitability despite LOEs

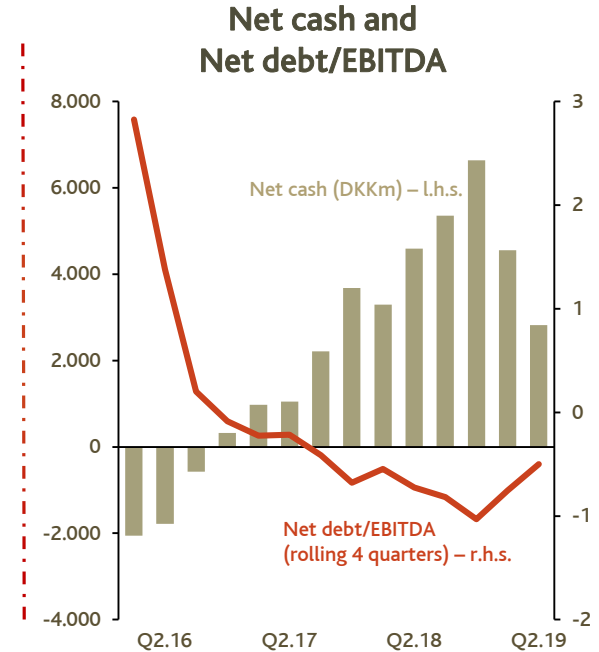
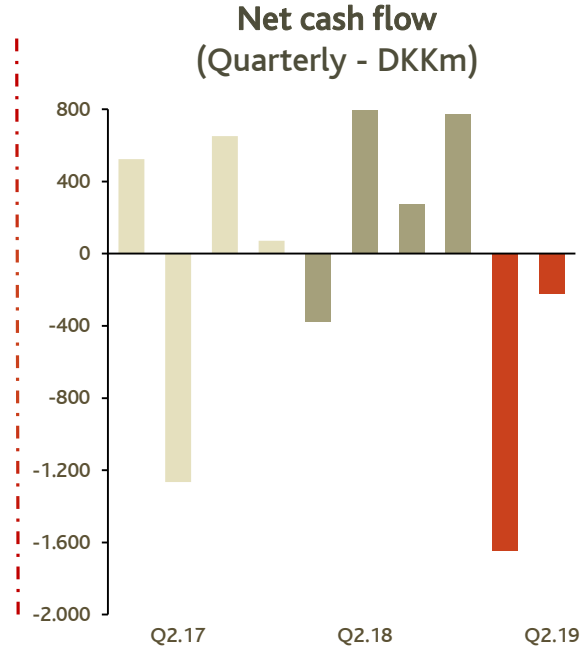
- ★ **Gross margin:** Down from 81.6% to 80.7% (H1)
- ★ **SG&A ratio:** Up from 31.6% to 35.8%
- ★ **R&D ratio:** Up from 15.8% to 17.7%
- ★ **EBIT margin:** Down from 32.4% to 27.2%. Expected to improve the coming years
- ★ **EPS:** Down 23% from DKK 11.07 to DKK 8.48

| DKKm | H1 2019 | Δ % y/y | Q2 2019 | Δ % y/y |
|----------------------------|--------------|-----------------|--------------|-----------------|
| Revenue | 8,480 | (9%) | 4,246 | (10%) |
| Gross margin | 80.7% | -0.9pp | 80.8% | -0.4pp |
| Gross margin (core) | 85.7% | -0.3pp | 85.8% | +0.4pp |
| Operating expenses | 4,535 | 3% | 2,326 | 3% |
| SG&A | 3,038 | 4% | 1,577 | 5% |
| R&D | 1,497 | 2% | 749 | (2%) |
| Other operating items, net | - | - ¹⁾ | - | - ¹⁾ |
| EBIT | 2,305 | (23%) | 1,105 | (18%) |
| EBIT margin | 27.2% | -5.2pp | 26.0% | -2.7pp |
| Core EBIT margin | 32.2% | -6.3pp | 31.1% | -6.3pp |
| Core EBIT | 2,729 | (24%) | 1,319 | (25%) |
| Tax rate | 27% | - | 27% | - |
| EPS | 8.48 | (23%) | 3.96 | (21%) |

1) An expense of DKK 165 million in H1 2018 and an expense of DKK 213 million in Q2 2018

Strong financial position provides flexibility to pursue further growth

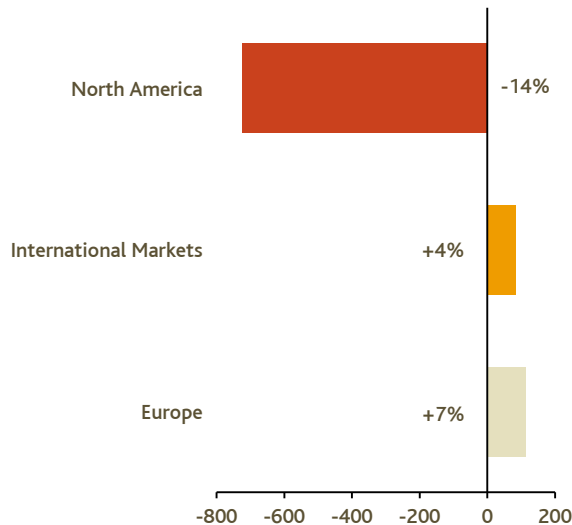
- ★ **Net cash flow:** Down DKK 2,280 million to DKK -1,864 million
- ★ **Net debt/EBITDA:** -0.5x based on rolling four quarters
- ★ FY 2019 cash flow will be negatively impacted by
 - ★ Lower EBITDA
 - ★ High dividend payout
 - ★ Acquisition of Abide
 - ★ Payment of DoJ settlement
- ★ **Net cash:** Expected to reach DKK 5-5.5 billion (USD ~0.8bn) in 2019



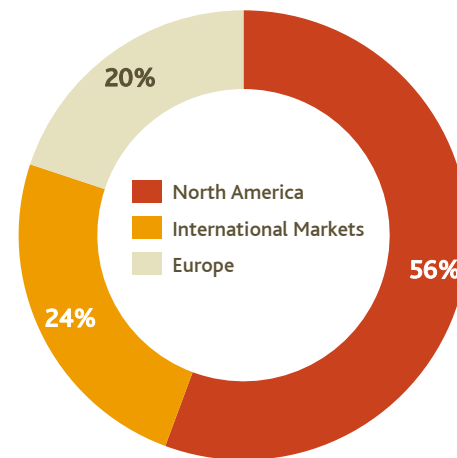
Europe and International Markets have returned to strong dynamic growth

- ★ 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
(H1 2019 - DKKm)



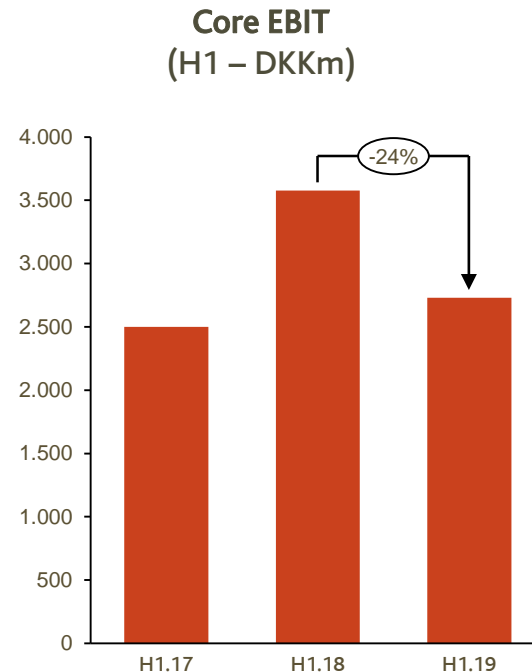
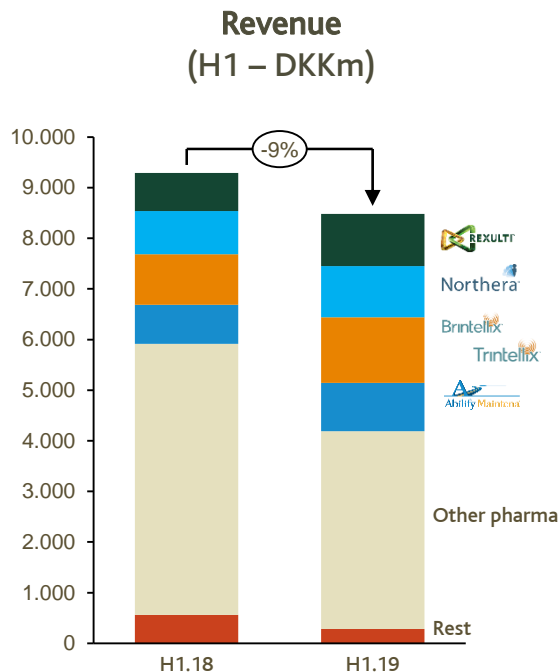
Sales by region[#]
(H1 2019)



[#]) Excluding Other revenue and effects from hedging

H1 2019: Continued strong growth from strategic brands and negative impact from generic erosion on mature products as expected

- ★ **Revenue:** Down 9% (8% in L.C.) to DKK 8.5 billion
- ★ Performance driven by strategic brands mitigating effect from generics
- ★ **Other revenue:** Up 31% to DKK 376 million
- ★ **Effects from hedging:** Loss of DKK 93 million
- ★ **Core EBIT margin:** 32.2% vs. 38.5% in H1 2018 following generic erosion of Onfi



Lundbeck's financial guidance for 2019 is maintained

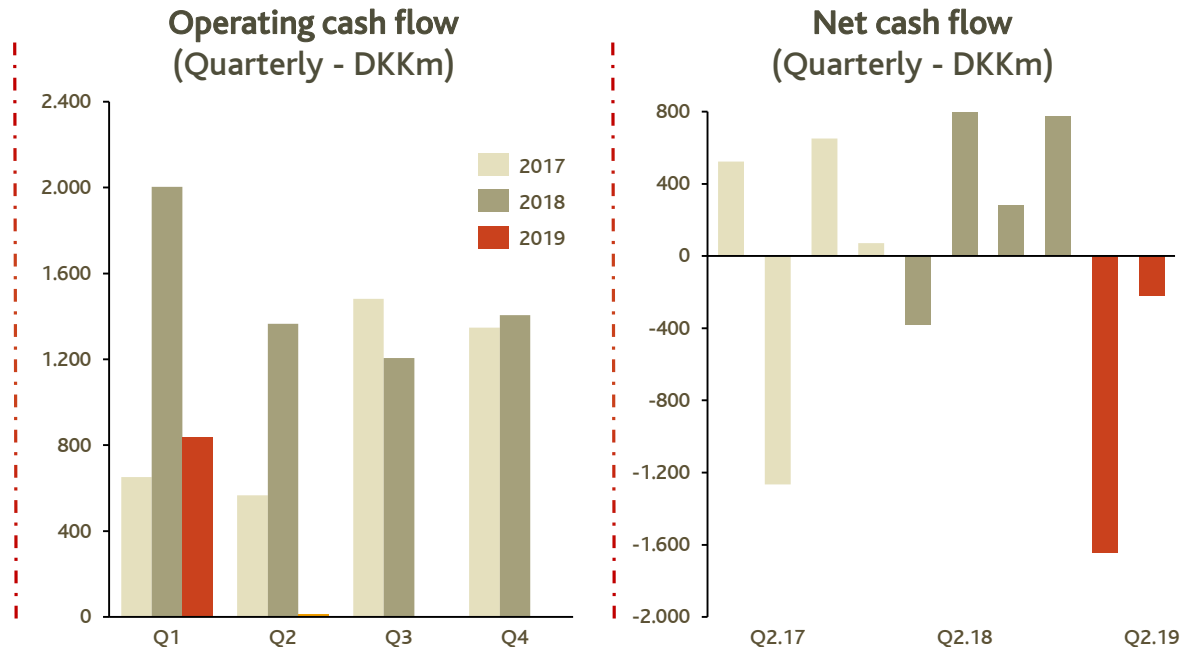
- ★ Continued growth for strategic brands
- ★ Significant negative impact from generic erosion
- ★ Effects from hedging is a loss of DKK 200-250 million
- ★ OPEX from Abide is included in guidance range
- ★ Net financial items of DKK ±50 million expected in 2019
- ★ Unchanged currencies from end-June 2019

2019 financial guidance

| | 2018 (DKKm) | 2019e (DKKbn) | ~Δ % (y/y) |
|---------------------------------|----------------|-------------------|---------------|
| Revenue | 18,117 | 16.3 – 16.7 | -10% – -8% |
| Core EBIT | 6,158 | 5.0 – 5.4 | -19% – -12% |
| <i>Implied core EBIT margin</i> | <i>34.0%</i> | <i>~30% – 33%</i> | - |
| EBIT | 5,301 | 4.2 – 4.6 | -21% – -13% |
| <i>Implied EBIT margin</i> | <i>29.3%</i> | <i>~25% – 28%</i> | - |
| <i>Tax rate</i> | <i>26.1%</i> | <i>26% – 28%</i> | - |

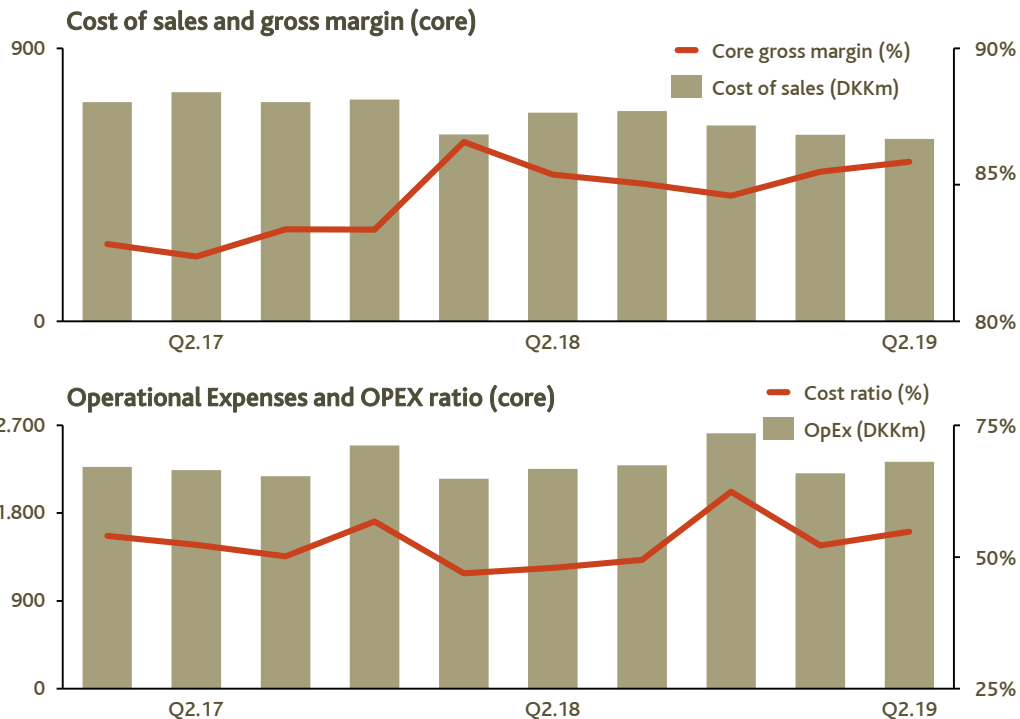
Cash flow impacted by acquisition of Abide, DoJ payment and higher dividend pay-out

- ★ **Cash flow from operating activities:** Reached DKK 850 million in H1 2019 following negative impact from working capital
- ★ **Working capital:** Payment of DoJ settlement, Lower gross-to-net accruals in the U.S. following declining sales of especially Onfi and quarterly fluctuations in these accruals
- ★ **Financing activities:** Dividend pay-out increased from DKK 1.6 billion to DKK 2.4 billion
- ★ **Net cash outflow:** DKK 1,864 million vs. an inflow of DKK 416 million last year



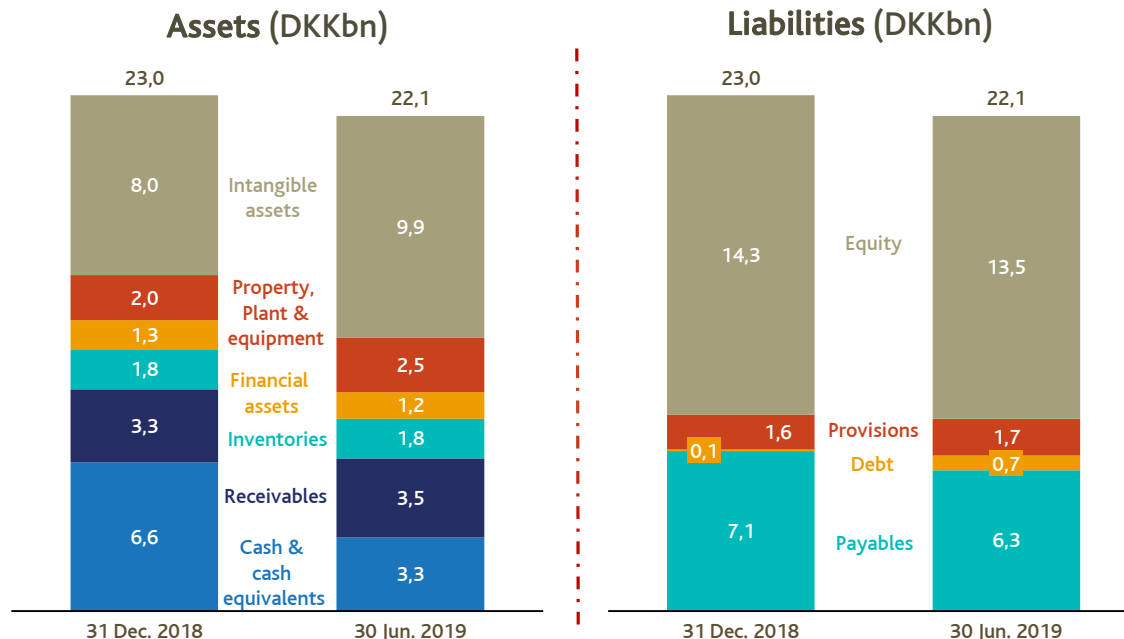
Core gross margin improved in Q2 2019 despite LOE on Onfi

- ★ **Cost of Sales (core):** Down 7% to DKK 1,216 million in H1 2019
- ★ **Gross margin (core):** Slight decline to 85.7% in H1 2019, but improvement in Q2 2019
- ★ **Operational expenses (OPEX):** Increased 3% to DKK 4,535 million in H1 2019
- ★ Reported and core **EBIT-margin** expected to improve in the coming years



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 1.3bn as short term payables decline (eg. DoJ payment)
- ★ **Financial debt:** Higher due to recognition of lease liabilities cf. IFRS 16



Selected deliverables

- ★ Start PoC study on Lu AF11167 in schizophrenia ✓
- ★ Commence the launch of Rxulti/Rexulti in Europe ✓
- ★ Abide acquisition – acting in line with strategy ✓
- ★ Pivotal data for Rexulti in bipolar mania ✗
- ★ Continue LCM activities on brexpiprazole ✓
- ★ Obtain approval of Trintellix in Japan (Q3)
- ★ Achieve FIH in 1-2 R&D projects
- ★ Headline results (PoC) for foliglurax in Parkinson's (turn of the year)
- ★ Continue to execute on *Expand and Invest to Grow*



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

- ★ Strong financial foundation
- ★ Highly profitable with strong cash generation, no debt
- ★ 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

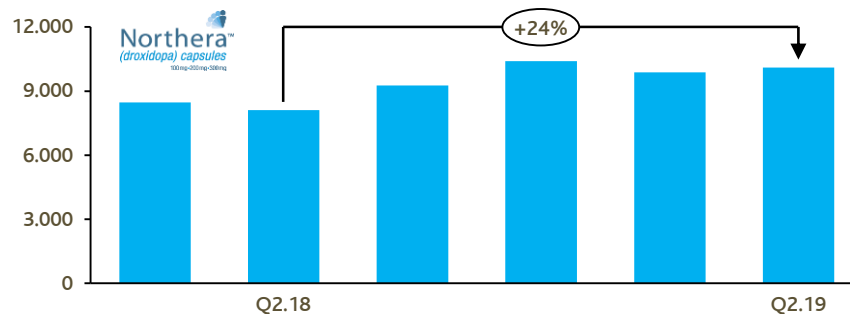
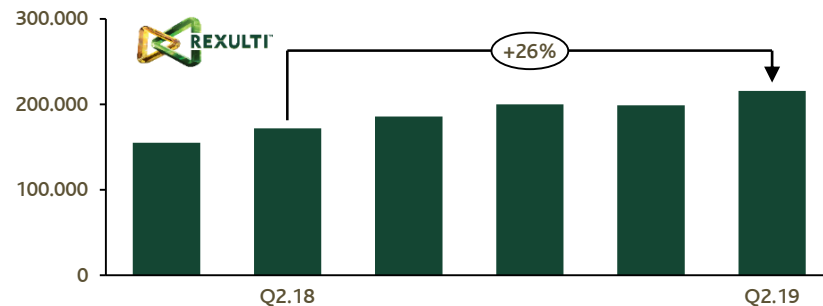
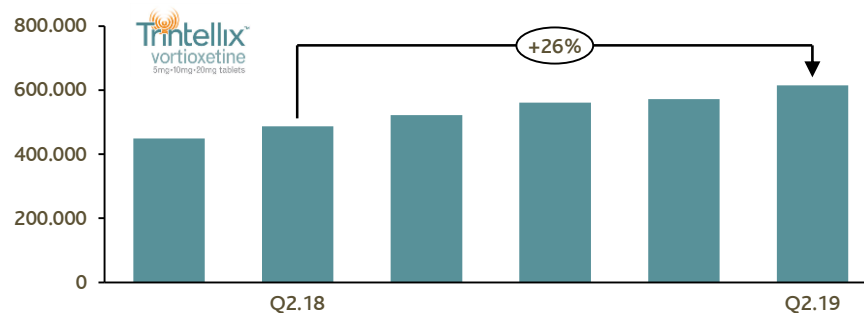
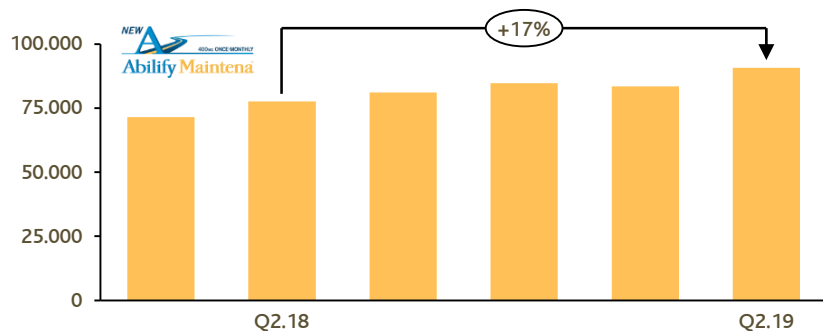


Thank you!

Lundbeck

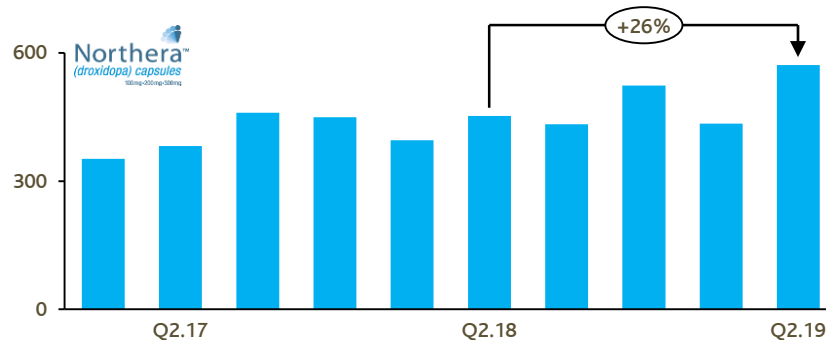
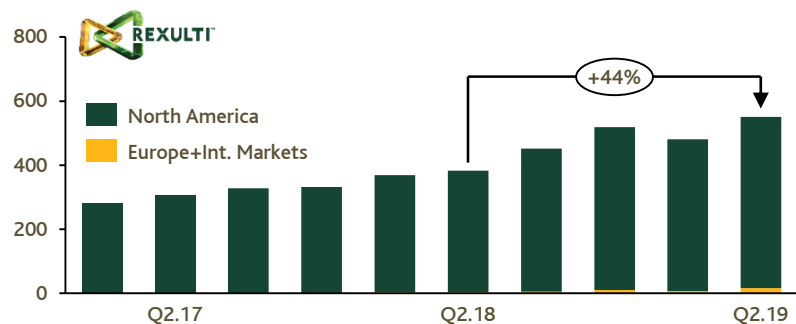
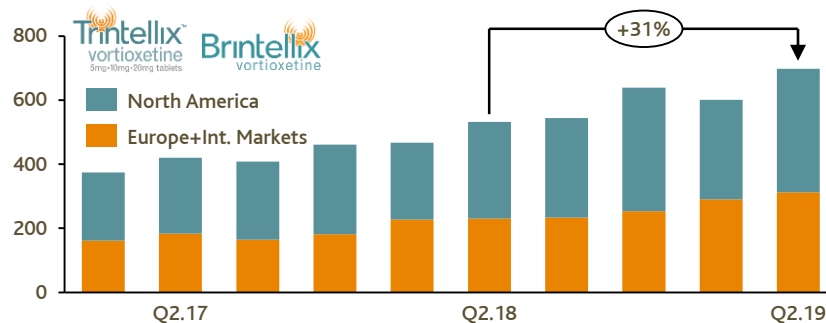
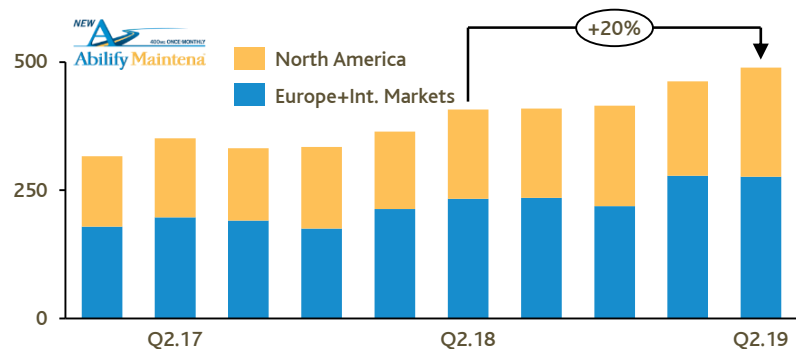


Solid volume growth in the U.S. for all strategic brands

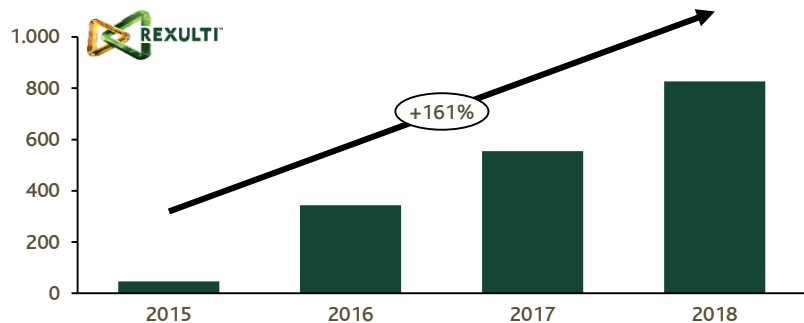
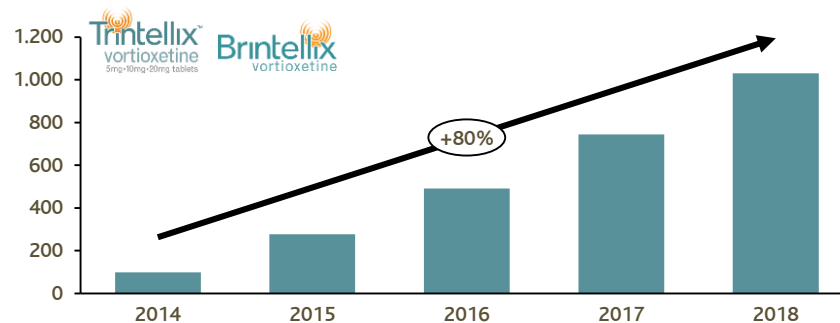
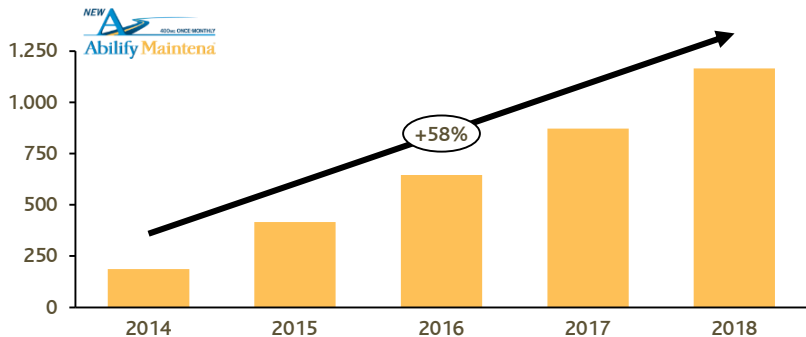


Source: Symphony Health (ref Bloomberg)

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



Total molecule sales (gross) - USDm

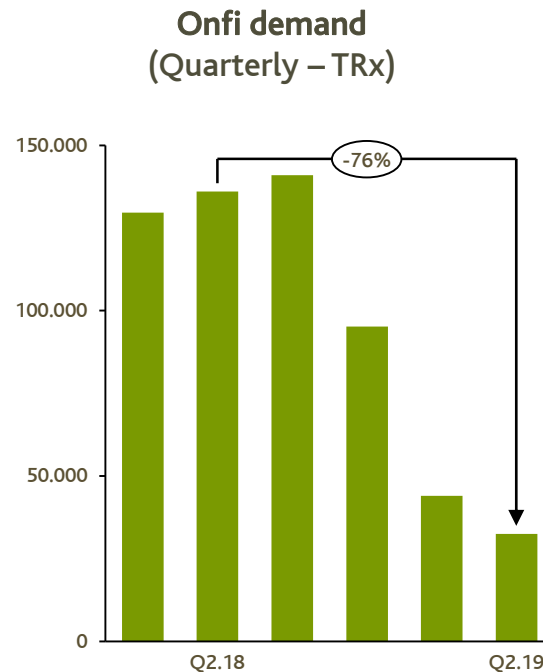
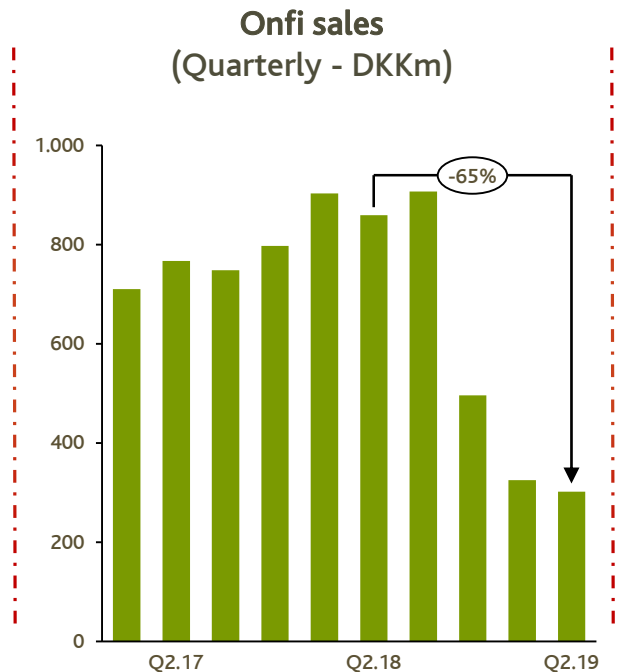


- ★ **Abilify Maintena:** US approval (Feb. 2013); EU approval (Nov. 2013)
- ★ **Brintellix/Trintellix:** US approval (Oct. 2013); EU approval (Dec. 2013)
- ★ **Rexulti:** US approval (Jul. 2015); EU approval (Jul. 2018); Japan approval (Jan. 2018 – NOT Lundbeck territory)

Source: IMS

Onfi impacted negatively by introductions of generic clobazam

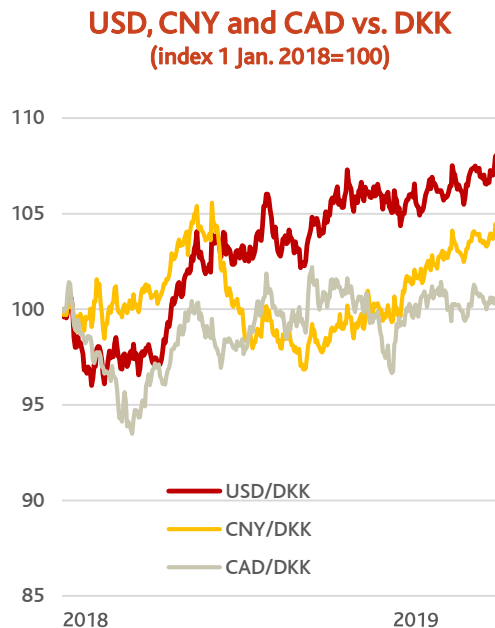
- ★ Declined 64% (67% in L.C.) to DKK 627 million in H1 2019
- ★ Numerous generic tablets and oral suspensions launched from October 2018
- ★ Aggressive generic pricing
- ★ Generic versions have taken ~75% of volume since October 2018



Source: Symphony Health (cf. Bloomberg)

Currency hedging at Lundbeck

- ★ The main currency risk concerns fluctuations in **USD, CNY** and **CAD** followed by **JPY** and **KRW**
- ★ **Current hedging rates:** USD (6.30), CNY (0.93) and CAD (4.87)
- ★ Lundbeck hedges a significant part of the risk (at EBIT level) for a period of **12-18 months**
- ★ Expected loss of **DKK 200-250 million** in hedging effect expected in 2019



Source: Bloomberg

Development of Lundbeck's key currencies

| Key currency | 2018 Avg. | H1.18 Avg. | H1.19 Avg. | Spot rate |
|--------------|-----------|------------|------------|-----------|
| USD | 632 | 616 | 661 | 665.5 |
| CNY | 95.5 | 96.6 | 97.4 | 94.2 |
| CAD | 487 | 482 | 496 | 502.2 |
| JPY | 5.719 | 5.662 | 6.006 | 6.323 |
| KRW | 0.574 | 0.572 | 0.577 | 0.545 |

DKK per 100. Spot rate per 13 August 2019
Source: Bloomberg

H1 2019 and FY 2018 - Product distribution of revenue

| DKKm | FY 2018 | FY 2017 | H1 2019 | H1 2018 | Growth | Growth in local currencies | % of total |
|-----------------------|---------------|---------------|--------------|--------------|-------------|----------------------------|-------------|
| TOTAL: | | | | | | | |
| Abilify Maintena | 1,595 | 1,333 | 951 | 771 | 23% | 20% | 11% |
| Brintellix/Trintellix | 2,182 | 1,663 | 1,299 | 999 | 30% | 27% | 15% |
| Cipralex/Lexapro | 2,257 | 2,392 | 1,205 | 1,339 | (10%) | (10%) | 14% |
| Northera | 1,806 | 1,644 | 1,007 | 849 | 19% | 11% | 12% |
| Onfi | 3,165 | 3,022 | 627 | 1,762 | (64%) | (67%) | 8% |
| Rexulti/Rxulti | 1,723 | 1,247 | 1,032 | 752 | 37% | 28% | 12% |
| Sabril | 1,342 | 1,509 | 462 | 652 | (29%) | (34%) | 6% |
| Other pharmaceuticals | 3,143 | 4,074 | 1,614 | 1,601 | 1% | - | 19% |
| Other revenue | 662 | 402 | 376 | 286 | 31% | 31% | 4% |
| Effects from hedging | 242 | (52) | (93) | 277 | - | - | (1%) |
| Total revenue | 18,117 | 17,234 | 8,480 | 9,288 | (9%) | (8%) | 100% |

H1 2019 and FY 2018 - Geographic distribution of revenue - 1

| DKKm | FY 2018 | FY 2017 | H1 2019 | H1 2018 | Growth | Growth in local currencies | % of total |
|-----------------------|---------------|---------------|--------------|--------------|--------------|----------------------------|-------------|
| NORTH AMERICA: | | | | | | | |
| Abilify Maintena | 695 | 591 | 397 | 325 | 22% | 15% | 9% |
| Trintellix | 1,239 | 974 | 697 | 542 | 29% | 21% | 15% |
| Northera | 1,806 | 1,644 | 1,007 | 849 | 19% | 11% | 22% |
| Onfi | 3,165 | 3,022 | 627 | 1,762 | (64%) | (67%) | 14% |
| Rexulti | 1,702 | 1,245 | 1,009 | 746 | 35% | 26% | 22% |
| Sabril | 1,342 | 1,509 | 462 | 652 | (29%) | (34%) | 10% |
| Other pharmaceuticals | 794 | 1,688 | 363 | 411 | (12%) | (16%) | 8% |
| Total revenue | 10,743 | 10,673 | 4,562 | 5,287 | (14%) | (19%) | 100% |

H1 2019 and FY 2018 - Geographic distribution of revenue - 2

| DKKm | FY 2018 | FY 2017 | H1 2019 | H1 2018 | Growth | Growth in local currencies | % of total |
|-------------------------------|--------------|--------------|--------------|--------------|-----------|----------------------------|-------------|
| EUROPE: | | | | | | | |
| Abilify Maintena | 770 | 637 | 474 | 385 | 23% | 23% | 29% |
| Brintellix | 547 | 376 | 345 | 260 | 33% | 32% | 21% |
| Cipralex | 572 | 643 | 286 | 323 | (11%) | (12%) | 18% |
| Rexulti/Rxulti | - | - | 4 | - | - | - | - |
| Other pharmaceuticals | 1,081 | 1,149 | 522 | 550 | (5%) | (5%) | 32% |
| Total revenue | 2,970 | 2,805 | 1,631 | 1,518 | 7% | 7% | 100% |
| INTERNATIONAL MARKETS: | | | | | | | |
| Abilify Maintena | 130 | 105 | 80 | 61 | 31% | 32% | 4% |
| Brintellix | 396 | 313 | 257 | 197 | 31% | 37% | 13% |
| Cipralex/Lexapro | 1,552 | 1,582 | 851 | 945 | (10%) | (10%) | 42% |
| Rexulti | 21 | 2 | 19 | 6 | 217% | 211% | 1% |
| Other pharmaceuticals | 1,401 | 1,404 | 797 | 711 | 12% | 12% | 40% |
| Total revenue | 3,500 | 3,406 | 2,004 | 1,920 | 4% | 5% | 100% |

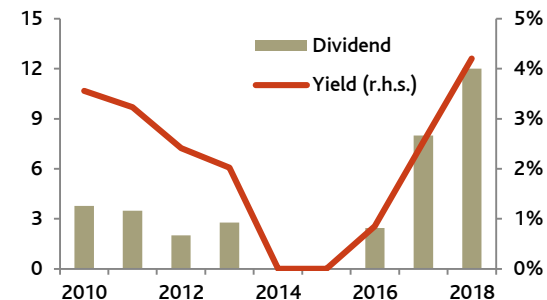
H1 2019 and FY 2018 - Cash generation

| DKKm | H1 2019 | H1 2018 | FY 2018 |
|--|----------------|--------------|--------------|
| Cash flows from operating activities | 850 | 3,369 | 5,981 |
| Cash flows from investing activities | (284) | (1,370) | (2,907) |
| Cash flows from operating and investing activities (free cash flow) | 566 | 1,999 | 3,074 |
| Cash flows from financing activities | (2,430) | (1,583) | (1,607) |
| Net cash flow for the period | (1,864) | 416 | 1,467 |
| Cash, bank balances and securities, end of period | 3,281 | 4,588 | 6,635 |
| Interest-bearing debt | (461) | - | - |
| Net cash/(net debt) | 2,820 | 4,588 | 6,635 |

H1 2019 and FY 2018 - Balance sheet and dividend

| DKKm | 30.06.2019 | 31.12.2018 |
|---|---------------|---------------|
| Intangible assets | 9,870 | 8,023 |
| Other non-current assets | 3,634 | 3,339 |
| Current assets | 8,578 | 11,649 |
| Assets | 22,082 | 23,011 |
| Equity | 13,498 | 14,251 |
| Non-current liabilities | 1,801 | 1,184 |
| Current liabilities | 6,783 | 7,576 |
| Equity and liabilities | 22,082 | 23,011 |
| Cash and bank balances | 1,743 | 3,605 |
| Securities | 1,538 | 3,030 |
| Interest-bearing debt | (461) | - |
| Interest-bearing debt, cash, bank balances and securities, net end of period | 2,820 | 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

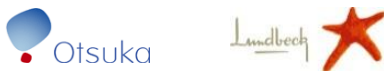
| DKKm | 2018 | 2017 | 2016 | 2015 | 2018 (Δ %) | 2017 (Δ %) |
|---------------------------------------|---------------------|---------------------|---------------|----------------------------|--------------------|--------------------|
| Revenue | 18,117 | 17,234 | 15,634 | 14,594 | 5% | 10% |
| Cost 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 | 21,410¹⁾ | (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% |
| <i>Cost of sales</i> | <i>19%</i> | <i>23%</i> | <i>26%</i> | <i>37%</i> | - | - |
| <i>Sales & Distribution costs</i> | <i>29%</i> | <i>33%</i> | <i>35%</i> | <i>46%</i> | - | - |
| <i>Administrative expenses</i> | <i>4%</i> | <i>5%</i> | <i>5%</i> | <i>8%</i> | - | - |
| <i>R&D costs</i> | <i>18%</i> | <i>16%</i> | <i>19%</i> | <i>56%</i> | - | - |
| <i>EBIT margin</i> | <i>29%</i> | <i>26%</i> | <i>15%</i> | <i>(47%)</i> | - | - |

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:



| | 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



| | 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 | HLUY |
| Ratio | 1:1 |

IR contact

Palle Holm Olesen

VP; Head of Investor Relations

Mobile: +45 3083 2426

palo@lundbeck.com or
polesen3@bloomberg.net

Financial calendar

| | |
|----------------|-----------------|
| 9M 2019 | 5 November 2019 |
| FY 2019 | 6 February 2020 |
| AGM | 24 March 2020 |