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.

Such forward-looking statements are subject to risks, uncertainties and inaccurate assumptions. This may cause actual results to differ materially from expectations and it may cause any or all of our forward-looking statements here or in other publications to be wrong. Factors that may affect future results include interest rate and currency exchange rate fluctuations, delay or failure of development projects, production problems, unexpected contract breaches or terminations, government-mandated or market-driven price decreases for Lundbeck’s products, introduction of competing products, Lundbeck’s ability to successfully market both new and existing products, exposure to product liability and other lawsuits, changes in reimbursement rules and governmental laws and related interpretation thereof, and unexpected growth in costs and expenses.

Lundbeck undertakes no duty to update forward-looking statements.

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

DISEASE AREAS
- Alzheimer's disease: 50m patients
- Parkinson's disease: 6m patients
- Mood disorder: 300m patients
- Psychotic disorders: 21m patients

KEY PRODUCTS
- ~$1.5bn
  - Northera®
  - Abilify Maintena
  - Brintellix
  - Trintellix
  - Onfi

GLOBAL PRESENCE
- We are headquartered in Denmark and present in 55 countries

REVENUE
- ~60% of our revenue is generated in North America

~$40bn
Our strategy for a FOCUSED LUNDBECK sets the direction for our future success.

Four diseases

Independent drug development and commercialization

Profitable growth
Volume growth in our four focus disease areas

Antipsychotics

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAGR</td>
<td>+3%</td>
<td></td>
<td></td>
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Antidepressants

<table>
<thead>
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<th>2014</th>
<th>2015</th>
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<td>CAGR</td>
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<tr>
<td>LU share</td>
<td>2.4%</td>
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Anti-Alzheimer's

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<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
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<tbody>
<tr>
<td>CAGR</td>
<td>+3%</td>
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</tr>
<tr>
<td>LU share</td>
<td>4.1%</td>
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</table>

Anti-Parkinsons

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>10.010</td>
<td>10.313</td>
<td>10.654</td>
<td>11.009</td>
<td>11.259</td>
</tr>
<tr>
<td>CAGR</td>
<td>+3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LU share</td>
<td>0.1%</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: IMS Health Analytics Link 2017 (Audited sales). Values are in standard units. Lundbeck share represents Lundbeck sales only.
Four focus disease areas that represent a USD ~40bn opportunity

**North America**
- Depressants: $5.6bn
- Psychotics: $11.1bn
- Alzheimer’s: $1.6bn
- Parkinson’s: $0.9bn

**Europe**
- Depressants: $3.0bn
- Psychotics: $3.7bn
- Alzheimer’s: $0.8bn
- Parkinson’s: $1.6bn

**China**
- Depressants: $0.5bn
- Psychotics: $0.6bn
- Alzheimer’s: $0.1bn
- Parkinson’s: $0.1bn

**Japan**
- Depressants: $1.1bn
- Psychotics: $1.1bn
- Alzheimer’s: $1.1bn
- Parkinson’s: $0.7bn

Source: IMS Health Analytics Link 2017 (Audited sales)
Key product growth drives top and bottom line

- **Revenue**: Up 9% (14% in L.C.) to DKK 9.3 billion in H1 2018
- **Hedging**: Contributed DKK 277 million
- **Key products**: Up 21% to DKK 5.1 billion representing 55% of revenue
- **EBIT**: Up 46% to DKK 3.0 billion. EBIT margin significantly improved to 32.4%, but positively impacted by hedging gains
- **EPS**: Up 83% to DKK 11.07
- **FY2018**: Guidance revised

#) Includes Other revenue and effects from hedging

*) Abilify Maintena, Brintellix/Trintellix, Northera, Onfi and Rexulti
Solid revenue growth of 9% to DKK 9.3 billion in H1 2018 – in local currencies growth reached 14%

- **Key products** grew by DKK 874 million or 21% (33% in L.C.) with all products showing double digit growth in H1 2018
- Both **North America** and **International Markets** see significant currency headwind
- Growth in all regions in local currencies
- Largest markets are the U.S., Canada, China, France, Italy, Japan and Spain

**Key product** revenue (DKKm)

**Revenue distribution** (regional split)

*) Ability Maintena, Brinellix/Trintellix, Northera, Onfi and Rexulti
**) Excluding Other revenue and effects from hedging
North America up 1% driven by Trintellix, Rexulti, Northera and Onfi – currency headwind had significant negative impact

- North America grew 1% (14% in L.C.) to DKK 5,287 million in H1 2018
- Key products# grew 19% and constituted 80% of revenue in H1 2018
- For FY2018, North America is expected to show growth in local currencies despite LOE on Onfi towards the end of the year

North America revenue (DKKm)

North America’s contribution*)

*) Ability Maintena, Northera, Onfi, Rexulti and Trintellix

*) Excluding Other revenue and effects from hedging
International Markets grew 3% in H1 2018 – up 11% in local currencies

- International Markets increased 3% (11% in L.C.) to DKK 1.9 billion in H1 2018
- Positive impact from stocking of DKK ~150 million
- Key products grew by 23% and constituted 14% of sales
- Market exclusivity for Lexapro extended by two years in Japan
- Main markets are Brazil, China, Japan and South Korea
- For FY2018, International Markets is expected to show growth in local currencies

International Markets revenue (DKKm)

International Markets’ contribution*)

*) Excluding Other revenue and effects from hedging
Europe grew 6% in H1 2018 driven by Abilify Maintena and Brintellix – up 7% in local currencies

- Europe grew 6% to DKK 1.5 billion in H1 2018
- Key products (Abilify Maintena and Brintellix) grew 27% and constituted 42% of sales
- Largest markets are France, Italy and Spain
- Continued strong performance for Brintellix, especially in France, Italy and Spain
- Profitability significantly improved
- Rxulti approved in Europe with launch commencing in H1 2019
- For FY2018, Europe is expected to show growth in local currencies

*) Excluding Other revenue and effects from hedging
Mood disorders

- 300 million people worldwide are estimated to live with depression
- Cognitive symptoms (difficulty concentrating, forgetfulness and/or indecisiveness) appears 94% of the time during major depressive episodes
- The WHO lists depression as the leading disability worldwide
- Majority of patients do not respond to initial antidepressant therapy
- Value: USD 12.6 billion (2017)
Brintellix/Trintellix grew 26% to DKK 999 million in H1 2018 – in local currencies the growth was 36%

- **North America** grew by 20% (34% in L.C.) to DKK 542 million
- **Europe and International Markets** grew 33% (40% in L.C.) combined to DKK 457 million
- Largest markets are the U.S. Brazil, Canada, France, Italy, and Spain
- Growth mainly driven by France, Italy, Spain and the U.S.
- Brintellix continues to gain both volume and value share
- **PDUFA** on 21 October regarding TESD in patients with depression

*PDUFA: Prescription Drug User Fee Act (FDA). TESD: Treatment-Emergent Sexual Dysfunction*
Trintellix is the first FDA-approved treatment for MDD to have data on processing speed, an aspect of cognitive function that is impaired in many patients with MDD.

- Trintellix U.S.-label updated to include data showing improvement in processing speed, an important aspect of cognitive function.
- Comparative studies have not been conducted to demonstrate a therapeutic advantage over other antidepressants on the DSST.
- MDD is a multidimensional disorder consisting not only of mood, but also physical and cognitive symptoms.
- Cognitive symptoms in MDD are highly prevalent and persistent even after treatment.

The prevalence of cognitive symptoms in MDD:

- **Acute phase – 94%**
  Cognitive problems dominate the course of depression and were present for up to 94% of the time during depressive episode.

- **Remission – 44%**
  Even patients thought to be in remission, cognitive symptoms were present in depressed patients for an average of 39-44% of the time.

Standardized effect size (DSST) relative to placebo (meta-analysis):

- The prevalence of cognitive symptoms in MDD:

  - **Acute phase – 94%**
    Cognitive problems dominate the course of depression and were present for up to 94% of the time during depressive episode.

  - **Remission – 44%**
    Even patients thought to be in remission, cognitive symptoms were present in depressed patients for an average of 39-44% of the time.


Conradi HJ et al. Psychol Med 2011; 41: 1165-1174
Further potential strengthening of Trintellix U.S. label

- FDA accepted sNDA for Trintellix for Treatment-Emergent Sexual Dysfunction (TESD) in patients with depression
- PDUFA on 21 October 2018
- The prevalence of TESD reach 25-80% (SSRIs) and 40-80% (SNRIs)
- Sexual dysfunction ranked as the most bothersome adverse event (AE), followed by drowsiness, weight gain, and insomnia

### Completed studies in TESD

<table>
<thead>
<tr>
<th>Study #1 (NCT01364649)</th>
<th>Study #2 (NCT02932904)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Completed enrollment:</strong></td>
<td></td>
</tr>
<tr>
<td>450 patients included</td>
<td>352 healthy volunteers</td>
</tr>
<tr>
<td><strong>Intervention:</strong></td>
<td></td>
</tr>
<tr>
<td>10-20mg vortioxetine, 10-20mg escitalopram and placebo</td>
<td>10-20mg vortioxetine, 20mg paroxetine and placebo</td>
</tr>
<tr>
<td><strong>Treatment duration:</strong></td>
<td></td>
</tr>
<tr>
<td>8 weeks</td>
<td>8 weeks</td>
</tr>
<tr>
<td><strong>Primary outcome measures:</strong></td>
<td></td>
</tr>
<tr>
<td>Change From Baseline in the CSFQ-14 Total Score¹</td>
<td></td>
</tr>
</tbody>
</table>

CSFQ: Changes in Sexual Functioning Questionnaire

### Change from baseline in CSFQ-14 Total Score

P-value: *<0.05, **<0.01


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Psychotic disorders

- The WHO estimates that over 21 million people suffer from schizophrenia.
- Schizophrenia is among the most financially costly illnesses in the world.
- The disease is marked by positive symptoms (hallucinations and delusions) and negative symptoms (blunted emotions and social withdrawal).
- Around 30% of patients with schizophrenia have inadequate response to antipsychotics.
- Current therapies are sub-optimal.
- Value: USD 18.8 billion (2017)
Rexulti grew 28% to DKK 752 million in H1 2018 – in local currencies the growth was 44%

**Rexulti** approved in Europe

- Recently also approved in Honduras and Saudi Arabia
- Rexulti has 11.3% value share (U.S.)
- Third study in **AAD** commenced
- Pivotal programme in **bipolar mania** to conclude Q1 2019
- PoC study in **PTSD** to conclude Q1 2019
- Additional LCM activity progressing

**Rexulti sales (DKKm)**

<table>
<thead>
<tr>
<th></th>
<th>North America</th>
<th>Europe + Int. Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q2.17</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Q2.18</td>
<td>400</td>
<td>400</td>
</tr>
</tbody>
</table>

**Total Rx count (U.S. retail)**

Source: Symphony Health Solutions/Bloomberg (monthly data ending 6/2018)

AAD: Agitation in Alzheimer’s disease; PoC: Proof of Concept; PTSD: Post-Traumatic Stress Disorder; LCM: Life-Cycle Mgmt.

Lundbeck’s share of revenue.

NOTE: Outside North America, Rexulti has only been launched in Australia.
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

**Bipolar I disorder**
- Two studies to demonstrate the efficacy in acute treatment of manic episodes, with or without mixed features, in subjects with a diagnosis of Bipolar I disorder (n = 320 in both studies) (NCT03257865, NCT03259555)
- Evaluating the safety and tolerability in the treatment of subjects with Bipolar I disorder (n = 384) (NCT03287869)

**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))

**PTSD**
- Evaluating the safety, efficacy and tolerability of brexpiprazole (with placebo) as monotherapy or combination therapy (Zoloft) in adults with PTSD (n = 332) (NCT03033069)

**Adolecents**
- To determine the safety and efficacy of brexpiprazole monotherapy in the treatment of adolescents with schizophrenia (n = 387) (NCT03198078)
- To further characterize the long-term safety and tolerability of brexpiprazole in adolescents with schizophrenia (n = 350) (NCT03238326)

**Upcoming events**
- Headline results from the PoC study in PTSD to be reported in Q1 2019
- Headline results from the pivotal programme in Bipolar disorder to be reported in Q1 2019
Brexpiprazole pivotal programme ongoing in acute manic episodes associated with Bipolar I disorder

Expected brexpiprazole profile:

- Established efficacy and treatment of bipolar I disorder
- Favorable tolerability profile over SoC (e.g., improved metabolic profile, fewer AEs including low frequency of sedating and activating side effects might support improved functioning and ability to work)
- Expected completion in Q1 2019

The studies

<table>
<thead>
<tr>
<th>Study #1 (NCT03259555)</th>
<th>Study #2 (NCT03257865)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated enrollment: 320 adult patients in each study</td>
<td></td>
</tr>
<tr>
<td>Intervention: 2-4 mg brexpiprazole and placebo</td>
<td></td>
</tr>
<tr>
<td>Treatment duration: 21 days</td>
<td></td>
</tr>
<tr>
<td>Primary outcome measures: change from baseline in YMRS score¹</td>
<td></td>
</tr>
<tr>
<td>Study start: September 2017</td>
<td></td>
</tr>
<tr>
<td>6-month safety study: Enrolling completers from Study #1 and #2</td>
<td></td>
</tr>
</tbody>
</table>

1) Young-Mania Rating Scale (YMRS) Score

Bipolar disorder

- More than 6 million affected in the U.S.
- Low rate of diagnosis (45%)
- A disease with high add-on and switch rates indicating need for new treatment options
- Patients in treatment spent 44% of their time being ill over a 9-year period²
- Bipolar disorder represents around one-third of the use of atypical antipsychotics

Brexpiprazole in a Proof-of-Concept study in Post-traumatic Stress Disorder (PTSD)

- 4-arm, 12-week trial using 1-3 mg of brexpiprazole*
- Monotherapy or in combination with sertraline
- ~330 patients to be enrolled
- Primary endpoint: Change from baseline in the CAPS-5 total score#)
- Study started in January 2017 with expected completion in Q1 2019

PTSD

- ~8.6m American adults affected¹), but ~80% is undiagnosed
- Growing economic and social burden to care for people with PTSD
- Inadequate response with FDA approved SSRIs sertraline and paroxetine
- Polypharmacy the norm

What causes PTSD?

1. Rape
2. Combat exposure
3. Physical attack
4. Childhood physical abuse

¹) http://www.cohenveteransbioscience.org/post-traumatic-stress/
US Census Bureau. Annual estimates of the resident population by sex and selected age groups for the United States: April 1, 2010 to July 1, 2011 (NC-EST2011-02). 2012

*) NCT03033069
#) Clinician-Administered PTSD Scale for DSM-5 (CAPS-5)
First pivotal study using Lu AF35700 in Treatment Resistant Schizophrenia (TRS) on track

- Unique mode of action. In contrast to current treatment, antipsychotic effect at low \( D_2 \) blockade
- Combined \( D_1/D_2 \), 5-HT\(_{2A} \) and 5-HT\(_{6} \) profile gives good activity combined with a benign tolerability profile
- Very long half-life leads to reduced risk of relapse

### Treatment Resistant Schizophrenia
- Around 1/3 of schizophrenia patients are treatment resistant
- Only clozapine approved for TRS
- Large unmet medical need

### Clinical programme
- Three studies in healthy people and one in patients with schizophrenia are concluded\(^1\)
- The first pivotal study (DayBreak I) commenced in March 2016\(^2\)
- Other key studies ongoing:
  - Long-term safety study\(^3\)
  - Cardiac repolarization\(^4\)
  - ED or LD TRS (Anew)\(^5\)

---

1) Clinicaltrials.gov identifier: NCT02202226
2) NCT02717195. 3) NCT02892422. 4) NCT02901587.
5) NCT03230864 (early-in-disease (ED) or late-in-disease (LD) treatment-resistant schizophrenia)
Set-up in first study (DAYBREAK I) in pivotal programme using Lu AF35700 in Treatment Resistant Schizophrenia

- Oral, once daily
- Finalized recruiting approximately 1,000 patients
- Expected completion by Q4 2018

**Primary endpoint**
- Change in PANSS total score

**Secondary endpoints**
- Clinical Global Impression Severity scale (CGI-S)
- Personal and Social Performance (PSP) total score

*) NCT02717195
Major clinical programme ongoing with Lu AF35700 – first results to be reported in Q4 2018

Lu AF35700
- For the treatment of treatment-resistant schizophrenia (TRS) which represents a major unmet medical need
- Antagonist at dopaminergic, serotonergic, and α adrenergic receptors. Unlike all currently available antipsychotics, Lu AF35700 has higher affinity for the human dopamine D<sub>1</sub> receptor than it has for the human dopamine D<sub>2</sub> receptor

Clinical studies in TRS
- **DAYBREAK I** evaluates the efficacy of 10 and 20 mg/day of Lu AF35700 on schizophrenia symptoms in patients with treatment-resistant schizophrenia (n = 964) (NCT02717195)
- **ANEW** evaluates the efficacy of 10 mg/day Lu AF35700 on symptoms of schizophrenia in patients with early-in-disease or late-in-disease treatment-resistant schizophrenia (n = 285) (NCT03230864)

Supportive clinical studies
- Study to evaluate the pharmacokinetics of Lu AF35700 after a single dose tablet to subjects with renal impairment and compare that with healthy subjects (n = 32) (NCT03241147)
- Study to investigate the effect of multiple doses of the strong P450 enzyme inhibitor itraconazole on the pharmacokinetics of Lu AF35700 in healthy subjects (n = 23) (NCT03103646)
- Study to establish bioequivalence of Lu AF35700 between the clinical formulation and the commercial formulation for three tablet strengths; 5, 10 and 20 mg (n = 90) (NCT03394482)

Upcoming events
- Communicate headline results from first study (**DAYBREAK I**) in the pivotal programme during Q4 2018
Abilify Maintena grew 16% to DKK 771 million in H1 2018 – in local currencies the growth was 22%

- **Europe** and **International Markets** grew 19% (21% in L.C.) combined to DKK 446 million
- **North America** up 12% (24% in L.C.) to DKK 325 million
- Growth driven by Australia, Canada, France, Spain and the U.S.
- Largest markets are Australia, Canada, France, Spain and the U.S.
- Market share increasing - >20% volume share (LAI retail) in most markets
- **Total LAI market** reached USD 2.2 billion (+13%) in H1 2018

LAI: Long-acting injectable anti-psychotics

*) Based on quarterly reports from Lundbeck, Otsuka, Alkermes and Johnson & Johnson
Alzheimer’s disease

- 50 million people worldwide have dementia (Alzheimer’s is the most common cause of dementia contributing 60-70% of cases)
- It is predicted that the number of people affected by dementia will almost double every 20 years
- People with Alzheimer’s live an average of 8 years after their symptoms become noticeable to others
- The total global societal costs of dementia are estimated to be USD 600 billion
- Value: USD 4.5 billion (2017)
Brexpiprazole in pivotal programme for the treatment of agitation in Alzheimer’s

Clinical programme

- 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

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
Grossberg: “Efficacy and safety of fixed-dose brexpiprazole for the treatment of agitation in Alzheimer’s type dementia” (AAGP2018)

- Brexpiprazole 2 mg/day showed a statistically significant improvement over placebo on the primary efficacy endpoint.

- On the key secondary efficacy endpoint, change from baseline to Week 12 in CGI-S score, numerical improvement was observed for brexpiprazole 2 mg/day from Week 6 and was sustained up to Week 12, although statistical significance was not reached.

- No new safety signals were observed.

**Primary endpoint**

![Graph showing mean change from baseline in CMAI total score](image)

Efficacy and safety of fixed-dose brexpiprazole for the treatment of agitation in Alzheimer’s type dementia: a randomized, double-blind, fixed-dose, 12-week, placebo-controlled global clinical trial

George T. Grossberg, Eva Kohegyi, Victor Mergel, Joan Amatniek, Mette Krog Josiassen, Didier Meulien, Mary Hobart, Raymond Sanchez, Margareta Nyilas, Mary Slomkowski, Ross A. Baker, Robert McQuade, Jeffrey Cummings

**Study I (NCT01862640)**

- N = 433 patients (recruited from Europe, Russia, Ukraine and the U.S.)

- Male or female, aged 55-90 years

- 1 mg, 2 mg and placebo

- 12 weeks’ treatment duration

- CMAI¹: 2 mg statistically superior to placebo

- CGI-S²: 2 mg not statistically superior to placebo

1) Primary efficacy endpoint: Cohen-Mansfield Agitation Inventory (CMAI) total score, a 29-item scale to systematically assess the symptoms of agitation.

2) Key secondary efficacy endpoint: Clinical Global Impression-Severity of Illness (CGI-S) score, a 7-point scale assessing overall severity of the patient’s agitation.

Presented at the 40th Annual Meeting of the American Association for Geriatric Psychiatry (AAGP), Honolulu, Hawaii, 15–18 March 2018
Cummings: “Efficacy and safety of flexibly-dosed brexpiprazole for the treatment of agitation in Alzheimer’s type dementia” (AAGP2018)

- Primary efficacy endpoint (CMAI) were numerically favorable for flexibly-dosed brexpiprazole (0.5–2 mg/day) over placebo, but not statistically significant.

- Brexpiprazole 2 mg/day showed improvement for both the primary and key secondary efficacy endpoints (post-hoc analyses, p≤0.01).

- The results suggest that brexpiprazole 2 mg/day may be an effective, safe, and well-tolerated new treatment for agitation in Alzheimer’s dementia.

Post-hoc analysis – subgroup of patients titrated to 2mg

Study II (NCT01922258)

- N = 270 patients (from 62 sites in Europe and North America)
- Male or female, aged 55-90 years
- Flexible dose: 0.5-2 mg
- 12 weeks’ treatment duration
- CMAI\(^1\): 0.5-2 mg not superior to placebo
- CGI-S\(^2\): 0.5-2 mg superior to placebo

Efficacy and safety of flexibly-dosed brexpiprazole for the treatment of agitation in Alzheimer’s type dementia: a randomized, double-blind, flexibly-dosed, 12-week, placebo-controlled global clinical trial

Jeffrey Cummings, Eva Kohegyi, Victor Mergel, Joan Amatniek, Mette Krog Josiassen, Didier Meulien, Mary Hobart, Raymond Sanchez, Margaretta Nylas, Mary Slomkowski, Ross A. Baker, Robert McGuade, George T. Grossberg

1) Primary efficacy endpoint: Cohen-Mansfield Agitation Inventory (CMAI) total score, a 29-item scale to systematically assess the symptoms of agitation
2) Key secondary efficacy endpoint: Clinical Global Impression-Severity of Illness (CGI-S) score, a 7-point scale assessing overall severity of the patient's agitation

Presented at the 40th Annual Meeting of the American Association for Geriatric Psychiatry (AAGP), Honolulu, Hawaii, 15–18 March 2018
Lundbeck is active in the investigation of various novel treatment concepts in Alzheimer’s

APP*  
Reduce formation of Aβ by inhibition of BACE1

BACE1  
γ-secretase inhibitors
γ-secretase inhibitors may have unwanted effects and are not pursued by Lundbeck

BACEi

γ-secretase

Lu AF20513  
Reduce levels of Aβ by increased clearance

Aβ1-42

AD  
Prevent spreading of misfolded Tau  
Reduce levels of Tau protein tangles

TauAb

γ-secretase inhibitors
Lu AF20513 – an active immunotherapy targeting β-amyloid

- Lu AF20513 induce specific antibodies against Aβ using AD patients’ own immune system
- Formed antibodies bind to and enhance the clearance of Aβ
- Reduce induction of Tau pathology
- Lu AF20513 has demonstrated to be immunogenic in animal models without activation of Aβ specific T-cells ► low risk of auto-immunogenicity
- Co-developed with Otsuka

AutoVac – unique and proprietary concept

![Diagram showing the process of antibody formation and clearance](image)

Study design*)

- Open-label, dose escalation study
- 35 patients from centers in Europe
- Patients with mild Alzheimer’s (MMSE 19-26)
- Eight injections of Lu AF20513

**Purpose:**
- Evaluate safety and tolerability
- Measure Aβ-specific antibody titer

*) NCT02388152
Lu AF20513 to enter proof of concept-study during H1 2019

**Lu AF20513**
- An active vaccine inducing high affinity polyclonal antibodies that target beta-amyloid (“Abeta”), for the potential injectable prevention of progression of Alzheimer's dementia

**Ongoing activities**
- Open label study to determine if multiple immunizations with Lu AF20513 is tolerable and safe in patients with mild Alzheimer's disease (n = 50) (NCT02388152)
- Investigating if subjects are generating antibodies

**Upcoming events**
- PoC study expected to commence in H1 2019
Approximately 6 million patients are estimated to be affected by Parkinson’s.

The prevalence of Parkinson’s in the U.S. will double by the year 2040 (compared to 2010).

Many Parkinson’s patients also suffer from disease related non-motor symptoms such as:

- Low blood pressure when standing up;
- Mood disorders; sensory problems;
- Sleep disorders; loss of sense of smell, constipation, cognitive issues

Value: USD 4.0 billion (2017)
Foliglurax – an interesting new pipeline asset currently in PoC testing in Parkinson’s patients

**Foliglurax (PXT002331)**

- 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**

- PD-LID is the most important unmet medical need after disease modification in Parkinson’s
  - 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

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

*Modified based on: Jankovic, Mov. Disorder 2005,*
Foliglurax is an innovative and highly attractive phase II compound being developed for symptomatic treatment of Parkinson’s disease

**Foliglurax**
- A small-molecule positive allosteric modulator of group III metabotropic glutamate receptor 4 (mGluR4 PAM), for the potential oral treatment of Parkinson's disease

**Ongoing activities**
- Phase II proof of concept study in subjects with Parkinson’s treated with a stable dose of levodopa who are experiencing both end-of-dose wearing off and Levodopa-Induced Dyskinesia (n = 165) (NCT03162874)

**Upcoming events**
- PoC study expected to finalize in Q3 2019
The value of Lundbeck’s R&D pipeline is increasing

- **Brexpiprazole**: Approved by the European Commission and in Switzerland
- **Vortioxetine**: Strong pivotal data in Japanese patients
- **Lu AF35700**: Finished recruiting in **DAYBREAK I**
- **Abilify Maintena 2-month**: Single dose study finished now moving into multi-dose study
- **Lu AF76432**: Phase I initiated in May 2018 (schizophrenia)
- **Lu AF28996**: Phase I initiated in June 2018 (Parkinson’s)
- **Lu AF82422**: Phase I initiated in August 2018 (Parkinson’s)

Ordered by neurodegenerative, psychotic disorders, mood disorders, and other.
Pipeline progressing with further newsflow expected in the next 12 months

- **Lu AF35700: Data from first pivotal study**
  - Headline results from *DAYBREAK I* (Q4 2018)

- **Brexiprazole: Data from life cycle management programme**
  - Headline results from Proof of Concept (phase II) study in PTSD (Q1 2019)
  - Headline results from pivotal programme in bipolar mania (Q1 2019)

- **Trintellix sNDA**
  - The U.S. FDA accepted an sNDA for the drug to treat MDD in patients with treatment-emergent sexual dysfunction in February 2018. PDUFA is set to 21 October 2018

- **Lu AF20513: Entering clinical Proof of Concept study**
  - Based on the data from phase I, Lundbeck intends to advance Lu AF20513 into a PoC clinical study in Alzheimer’s disease patients (H1 2019)

- **Foliglurax: Clinical Proof of Concept**
  - Headline results from PoC study (Q3 2019)
Higher degree of transparency in future revenue drivers than Lundbeck has had historically

<table>
<thead>
<tr>
<th>Pipeline</th>
<th>Indicated LOE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2020</td>
</tr>
<tr>
<td>Brexpiprazole LAI and Abilify Maintena 2-month</td>
<td></td>
</tr>
<tr>
<td>Lu AF35700 (Treatment Resistant Schizophrenia)</td>
<td></td>
</tr>
<tr>
<td>Foliglurax (Parkinson’s)</td>
<td></td>
</tr>
<tr>
<td>Lu AF20513 (Alzheimer’s)</td>
<td></td>
</tr>
<tr>
<td>Lu AF82422 (Parkinson’s)</td>
<td></td>
</tr>
<tr>
<td>Lu AF76432 (psychiatry)</td>
<td></td>
</tr>
<tr>
<td>TauAb, BACEi, PD-1/PD-L1 (Alzheimer’s)</td>
<td></td>
</tr>
</tbody>
</table>
Financial highlights
U.S. neurology products, Northera and Onfi, continue to show solid growth in local currency

**Northera**
- Up 16% (30% in L.C.) to DKK 849 million in H1 2018
- Northera impacted by seasonal swings in demand
- Expected continued growth

**Onfi**
- Up 19% (34% in L.C.) to DKK 1,762 million in H1 2018
- Expected to grow until generic clobazam is introduced, expectedly in Q4 2018
Maintaining strong cost focus while also investing in the business

- **Total costs** down 5% while growing topline by 9% in H1 2018
- **EBITDA margin** of 38.2% vs. 31.2% in H1 2017
- **EBIT margin** of 32.4% vs. 24.3% in H1 2017
- **COS%**: Expected to show continued improvements vs. 2017
- **S&D%**: Stable or modest additional improvements vs. 2017
- **G&A%**: Stable or modest additional improvements vs. 2017
- **R&D%**: Slightly increasing vs. 2017 depending on project execution

*Data adjusted for Other operating items, net*
Strong growth in earnings

- Significant negative impact from FX reducing revenue growth
- Growth for all key products and in all regions in L.C.
- EPS growth of 83%
- Significant EPS improvement driven by
  - Solid revenue growth
  - Strong improvement of profitability
  - Reduced tax rate as the U.S. tax reform has decreased the group tax rate from 40% in H1 2017 to 27%

### Financial results

<table>
<thead>
<tr>
<th>DKKm</th>
<th>H1.18</th>
<th>H1.17</th>
<th>Δ%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>9,288</td>
<td>8,494</td>
<td>9%</td>
</tr>
<tr>
<td>Gross margin</td>
<td>81.6%</td>
<td>76.9%</td>
<td>-</td>
</tr>
<tr>
<td>EBIT</td>
<td>3,006</td>
<td>2,061</td>
<td>46%</td>
</tr>
<tr>
<td>EBIT margin</td>
<td>32.4%</td>
<td>24.3%</td>
<td>-</td>
</tr>
<tr>
<td>Core EBIT</td>
<td>3,578</td>
<td>2,500</td>
<td>43%</td>
</tr>
<tr>
<td>Net profit</td>
<td>2,198</td>
<td>1,195</td>
<td>84%</td>
</tr>
<tr>
<td>EPS</td>
<td>11.07</td>
<td>6.05</td>
<td>83%</td>
</tr>
</tbody>
</table>

### Revenue (reported vs. L.C.)

<table>
<thead>
<tr>
<th>DKKm</th>
<th>H1.18</th>
<th>Δ DKKm</th>
<th>Δ% L.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>9,288</td>
<td>+794</td>
<td>+14%</td>
</tr>
<tr>
<td>- Abilify Maintena</td>
<td>771</td>
<td>+104</td>
<td>+22%</td>
</tr>
<tr>
<td>- Brintellix/Trintellix</td>
<td>999</td>
<td>+205</td>
<td>+36%</td>
</tr>
<tr>
<td>- Northera</td>
<td>849</td>
<td>+115</td>
<td>+30%</td>
</tr>
<tr>
<td>- Onfi</td>
<td>1,762</td>
<td>+285</td>
<td>+34%</td>
</tr>
<tr>
<td>- Rexulti</td>
<td>752</td>
<td>+165</td>
<td>+44%</td>
</tr>
<tr>
<td>North America</td>
<td>5,287</td>
<td>+77</td>
<td>+14%</td>
</tr>
<tr>
<td>Int. Markets</td>
<td>1,920</td>
<td>+51</td>
<td>+11%</td>
</tr>
<tr>
<td>Europe</td>
<td>1,518</td>
<td>+87</td>
<td>+7%</td>
</tr>
</tbody>
</table>
Strong cash flow generation and improved ROIC

- Cash flows from operating activities increased from DKK 1,217 million in H1 2017 to DKK 3,369 million in H1 2018
- Acquisition of Prexton Therapeutics in Q1 impacts net cash flow by DKK 745 million
- Dividend payout for 2017 increased to DKK 1.6 billion
- ROIC increased from 26.6% in FY2017 to 53.2% in H1 2018

Operating cash flow (DKKm)

Net cash flow (DKKm)
Capital allocation

- Dividend increased from DKK 2.45 to DKK 8.00 per share
- Net debt/EBITDA of -1.3x in H1 2018 vs. -0.4x in H1 2017
- Net cash expected to reach DKK 5-5.5 billion in 2018

Cash flow priorities

- Strategic cash reserve of DKK 4-6 billion
- Maintain investment grade status (NIBD/EBITDA<2.0x)
- Increasing dividends linked to long-term performance
- Dividend policy: Pay-out ratio of 60-80%
Hedging at Lundbeck

- The main currency risk concerns fluctuations of USD, JPY, CNY and CAD
- Lundbeck hedges a significant part of the risk (at EBIT level) for a period of 12-18 months
- From Q1 2018, gains/losses (net) is shown as a separate line item in revenue
- Expected hedging gain of DKK 200-300 million in 2018

**Source:** Bloomberg
2018 financial outlook revised

- Growth in all three regions in local currencies
- Continued growth for key products to outpace the decline from generic erosion
- Onfi revenue is expected to decline 40-50% compared to prior quarters in 2018
- Net financial items of DKK ±50 million expected in 2018
- No known additional one-off income and/or expenses
- Unchanged currencies from end-July 2018

### 2018 financial guidance

<table>
<thead>
<tr>
<th></th>
<th>DKKbn</th>
<th>2016</th>
<th>2017</th>
<th>Previous 2018 guidance</th>
<th>Revised 2018 guidance</th>
<th>Δ% (y/y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td></td>
<td>15.6</td>
<td>17.2</td>
<td>17.2-18.0</td>
<td>17.6-18.0</td>
<td>2-5%</td>
</tr>
<tr>
<td>EBIT</td>
<td></td>
<td>2.3</td>
<td>4.4</td>
<td>4.8-5.2</td>
<td>4.9-5.2</td>
<td>11-18%</td>
</tr>
<tr>
<td>Implied EBIT margin</td>
<td></td>
<td>14.7%</td>
<td>25.6%</td>
<td>~27-30%</td>
<td>~27-30%</td>
<td>-</td>
</tr>
<tr>
<td>Tax rate</td>
<td></td>
<td>43.9%</td>
<td>38.7%</td>
<td>26-28%</td>
<td>26-28%</td>
<td>-</td>
</tr>
</tbody>
</table>
Key priorities

- Sustain sales **momentum** of key products
- Continue to **focus** on high profitability
- Deliver on **innovation**
- High **dividend** pay-outs
## 2017 - CNS market overview

<table>
<thead>
<tr>
<th></th>
<th>Value USDbn</th>
<th>Value Growth</th>
<th>Volume Growth</th>
<th># of patients*</th>
<th>Unmet medical needs</th>
<th>Market leaders (2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Pharma</td>
<td>1,011</td>
<td>+3%</td>
<td>+1%</td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Total CNS</td>
<td>146</td>
<td>0%</td>
<td>+1%</td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Anti-Alzheimer’s (N7D)</td>
<td></td>
<td>-</td>
<td>+4%</td>
<td>&gt;7 million</td>
<td>• Disease modifying treatment</td>
<td>1. Memantine (44%)</td>
</tr>
<tr>
<td></td>
<td>4.5</td>
<td>-16%</td>
<td>+4%</td>
<td>&gt;7 million</td>
<td>• Disease slowing agents</td>
<td>2. Donepezil (23%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Improved symptomatic treatments</td>
<td>3. Rivastigmine (20%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Longer lasting symptomatic treatments</td>
<td>4. Galantamine (8%)</td>
</tr>
<tr>
<td>Anti-depressants (N6A)</td>
<td></td>
<td>-3%</td>
<td>+3%</td>
<td>~40 million</td>
<td>• Drugs with higher remission rates</td>
<td>1. Duloxetine (12%)</td>
</tr>
<tr>
<td></td>
<td>12.6</td>
<td></td>
<td></td>
<td>~40 million</td>
<td>• Increased onset of action</td>
<td>2. Escitalopram (11%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Current therapies are relatively well-tolerated but still room for improvement especially on sexual side effects</td>
<td>3. Bupropion (10%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4. Venlafaxine (10%)</td>
</tr>
<tr>
<td>Anti-Parkinson’s (N4A)</td>
<td></td>
<td>0%</td>
<td>+3%</td>
<td>&gt;3 million</td>
<td>• Therapies that provide neuroprotection and/or neurorestitution</td>
<td>1. Levodopa (18%)</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
<td></td>
<td></td>
<td>&gt;3 million</td>
<td>• An optimal trial design for demonstrating neuroprotection and/or neurorestitution</td>
<td>2. Pramipexole (13%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Control of levodopa-induced motor response complications</td>
<td>3. Rotigotene (13%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4. Rasigiline (10%)</td>
</tr>
<tr>
<td>Anti-psychotics (N5A)</td>
<td></td>
<td>-13%</td>
<td>+4%</td>
<td>Approx 1% of global population</td>
<td>• Improved treatment of cognitive dysfunction</td>
<td>1. Paliperidone Palmitate (18%)</td>
</tr>
<tr>
<td></td>
<td>18.8</td>
<td></td>
<td></td>
<td>Approx 1% of</td>
<td>• Improved treatment of negative symptoms</td>
<td>2. Lurasidone (16%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>global population</td>
<td>• Improved treatment of co-morbid depression and anxiety</td>
<td>3. Aripiprazole (15%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Early stage, definitive diagnostics</td>
<td>4. Quetiapine (11%)</td>
</tr>
</tbody>
</table>

Source: IMS Health Analytics Link 2017 (Audited sales), Growth, USD % y/y
Financial targets

Targets within the 2018-2020 period

EBIT margin  25%
ROIC        25%
Cash to earnings >90%

Dividend pay-out  60-80%
Net debt/EBITDA  <2x

Financial policies

Target achievements

<table>
<thead>
<tr>
<th></th>
<th>H1.18</th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBIT margin</td>
<td>32.4%</td>
<td>25.6%</td>
<td>14.7%</td>
<td>(46.7%)</td>
</tr>
<tr>
<td>ROIC (annualized)</td>
<td>53.2%</td>
<td>30.8%</td>
<td>13.2%</td>
<td>(45.4%)</td>
</tr>
<tr>
<td>Cash to earnings</td>
<td>114.1%</td>
<td>141.8%</td>
<td>230.3%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Dividend Pay-out
- 61%  40%  0%
Net debt/EBITDA
(1.3) (0.7) (0.1) 10.7
### H1 2018 and FY 2017 - Product distribution of revenue

<table>
<thead>
<tr>
<th>DKKm</th>
<th>FY 2017</th>
<th>FY 2016(^*))</th>
<th>H1 2018</th>
<th>H1 2017</th>
<th>Growth</th>
<th>Growth in local currencies</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability Maintena</td>
<td>1,333</td>
<td>1,114</td>
<td>771</td>
<td>667</td>
<td>16%</td>
<td>22%</td>
<td>8%</td>
</tr>
<tr>
<td>Brintellix/Trintellix</td>
<td>1,663</td>
<td>1,105</td>
<td>999</td>
<td>794</td>
<td>26%</td>
<td>36%</td>
<td>11%</td>
</tr>
<tr>
<td>Cipralex/Lexapro</td>
<td>2,392</td>
<td>2,518</td>
<td>1,339</td>
<td>1,314</td>
<td>2%</td>
<td>9%</td>
<td>14%</td>
</tr>
<tr>
<td>Northera</td>
<td>1,644</td>
<td>1,087</td>
<td>849</td>
<td>734</td>
<td>16%</td>
<td>30%</td>
<td>9%</td>
</tr>
<tr>
<td>Onfi</td>
<td>3,022</td>
<td>2,409</td>
<td>1,762</td>
<td>1,477</td>
<td>19%</td>
<td>34%</td>
<td>19%</td>
</tr>
<tr>
<td>Rexulti</td>
<td>1,247</td>
<td>826</td>
<td>752</td>
<td>587</td>
<td>28%</td>
<td>44%</td>
<td>8%</td>
</tr>
<tr>
<td>Sabril</td>
<td>1,509</td>
<td>1,342</td>
<td>652</td>
<td>780</td>
<td>(16%)</td>
<td>(6%)</td>
<td>7%</td>
</tr>
<tr>
<td>Xenazine</td>
<td>1,046</td>
<td>1,571</td>
<td>230</td>
<td>551</td>
<td>(58%)</td>
<td>(53%)</td>
<td>3%</td>
</tr>
<tr>
<td>Other pharmaceuticals</td>
<td>3,028</td>
<td>3,337</td>
<td>1,371</td>
<td>1,606</td>
<td>(15%)</td>
<td>(11%)</td>
<td>15%</td>
</tr>
<tr>
<td>Other revenue</td>
<td>402</td>
<td>325</td>
<td>286</td>
<td>137</td>
<td>109%</td>
<td>110%</td>
<td>3%</td>
</tr>
<tr>
<td>Hedging</td>
<td>(52)</td>
<td>-</td>
<td>277</td>
<td>(153)</td>
<td>-</td>
<td>-</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td><strong>17,234</strong></td>
<td><strong>15,634</strong></td>
<td><strong>9,288</strong></td>
<td><strong>8,494</strong></td>
<td><strong>9%</strong></td>
<td><strong>14%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

\(^*) In 2016 effects from hedging is included in revenue for the individual products.
### H1 2018 and FY 2017 - Geographic distribution of revenue - 1

<table>
<thead>
<tr>
<th></th>
<th>DKKm</th>
<th>FY 2017</th>
<th>FY 2016*</th>
<th>H1 2018</th>
<th>H1 2017</th>
<th>Growth</th>
<th>Growth in local currencies</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NORTH AMERICA:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abilify Maintena</td>
<td>591</td>
<td>526</td>
<td>325</td>
<td>291</td>
<td>12%</td>
<td>24%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Trintellix</td>
<td>974</td>
<td>706</td>
<td>542</td>
<td>450</td>
<td>20%</td>
<td>34%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Northera</td>
<td>1,644</td>
<td>1,087</td>
<td>849</td>
<td>734</td>
<td>16%</td>
<td>30%</td>
<td>16%</td>
<td></td>
</tr>
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<td>1,762</td>
<td>1,477</td>
<td>19%</td>
<td>34%</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>Rexulti</td>
<td>1,245</td>
<td>826</td>
<td>746</td>
<td>587</td>
<td>27%</td>
<td>42%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Sabril</td>
<td>1,509</td>
<td>1,342</td>
<td>652</td>
<td>780</td>
<td>(16%)</td>
<td>(6%)</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Xeazine</td>
<td>1,016</td>
<td>1,557</td>
<td>220</td>
<td>538</td>
<td>(59%)</td>
<td>(54%)</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Other pharmaceuticals</td>
<td>672</td>
<td>669</td>
<td>191</td>
<td>353</td>
<td>(46%)</td>
<td>(41%)</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td><strong>Total revenue</strong></td>
<td>10,673</td>
<td>9,122</td>
<td>5,287</td>
<td>5,210</td>
<td>1%</td>
<td>14%</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

*) In 2016 effects from hedging is included in revenue for the individual products.
### H1 2018 and FY 2017 - Geographic distribution of revenue - 2

<table>
<thead>
<tr>
<th>DKKm</th>
<th>FY 2017</th>
<th>FY 2016 *)</th>
<th>H1 2018</th>
<th>H1 2017</th>
<th>Growth</th>
<th>Growth in local currencies</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EUROPE:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abilify Maintena</td>
<td>637</td>
<td>508</td>
<td>385</td>
<td>326</td>
<td>18%</td>
<td>19%</td>
<td>26%</td>
</tr>
<tr>
<td>Brintellix</td>
<td>376</td>
<td>220</td>
<td>260</td>
<td>179</td>
<td>45%</td>
<td>45%</td>
<td>17%</td>
</tr>
<tr>
<td>Cipralex</td>
<td>643</td>
<td>760</td>
<td>323</td>
<td>336</td>
<td>(4%)</td>
<td>(3%)</td>
<td>21%</td>
</tr>
<tr>
<td>Other pharmaceuticals</td>
<td>1,149</td>
<td>1,424</td>
<td>550</td>
<td>590</td>
<td>(7%)</td>
<td>(6%)</td>
<td>36%</td>
</tr>
<tr>
<td>Total revenue</td>
<td>2,805</td>
<td>2,912</td>
<td>1,518</td>
<td>1,431</td>
<td>6%</td>
<td>7%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>INTERNATIONAL MARKETS:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abilify Maintena</td>
<td>105</td>
<td>80</td>
<td>61</td>
<td>50</td>
<td>23%</td>
<td>33%</td>
<td>3%</td>
</tr>
<tr>
<td>Brintellix</td>
<td>313</td>
<td>179</td>
<td>197</td>
<td>165</td>
<td>20%</td>
<td>35%</td>
<td>11%</td>
</tr>
<tr>
<td>Cipralex/Lexapro</td>
<td>1,582</td>
<td>1,571</td>
<td>945</td>
<td>887</td>
<td>7%</td>
<td>16%</td>
<td>49%</td>
</tr>
<tr>
<td>Ebixa</td>
<td>469</td>
<td>486</td>
<td>253</td>
<td>280</td>
<td>(10%)</td>
<td>(3%)</td>
<td>13%</td>
</tr>
<tr>
<td>Other pharmaceuticals</td>
<td>937</td>
<td>959</td>
<td>464</td>
<td>487</td>
<td>(5%)</td>
<td>1%</td>
<td>24%</td>
</tr>
<tr>
<td>Total revenue</td>
<td>3,406</td>
<td>3,275</td>
<td>1,920</td>
<td>1,869</td>
<td>3%</td>
<td>11%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*) In 2016 effects from hedging is included in revenue for the individual products.
# H1 2018 - Cash generation

<table>
<thead>
<tr>
<th>DKKm</th>
<th>H1 2018</th>
<th>H1 2017</th>
<th>FY 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flows from operating activities</td>
<td>3,369</td>
<td>1,217</td>
<td>4,045</td>
</tr>
<tr>
<td>Cash flows from investing activities</td>
<td>(1,370)</td>
<td>(517)</td>
<td>(1,830)</td>
</tr>
<tr>
<td><strong>Cash flows from operating and investing activities (free cash flow)</strong></td>
<td>1,999</td>
<td>700</td>
<td>2,215</td>
</tr>
<tr>
<td>Cash flows from financing activities</td>
<td>(1,583)</td>
<td>(1,442)</td>
<td>(2,235)</td>
</tr>
<tr>
<td><strong>Net cash flow for the period</strong></td>
<td>416</td>
<td>(742)</td>
<td>(20)</td>
</tr>
<tr>
<td>Cash, bank balances and securities, end of period</td>
<td>4,588</td>
<td>1,961</td>
<td>3,677</td>
</tr>
<tr>
<td>Interest-bearing debt</td>
<td>-</td>
<td>(909)</td>
<td>-</td>
</tr>
<tr>
<td><strong>Net cash/(net debt)</strong></td>
<td>4,588</td>
<td>1,052</td>
<td>3,677</td>
</tr>
</tbody>
</table>
**H1 2018 - Balance sheet and dividend**

<table>
<thead>
<tr>
<th>DKKm</th>
<th>30.06.2018</th>
<th>31.12.2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intangible assets</td>
<td>7,989</td>
<td>7,565</td>
</tr>
<tr>
<td>Other non-current assets</td>
<td>3,199</td>
<td>3,347</td>
</tr>
<tr>
<td>Current assets</td>
<td>10,515</td>
<td>8,844</td>
</tr>
<tr>
<td><strong>Assets</strong></td>
<td>21,703</td>
<td>19,756</td>
</tr>
<tr>
<td>Equity</td>
<td>12,559</td>
<td>12,181</td>
</tr>
<tr>
<td>Non-current liabilities</td>
<td>1,092</td>
<td>1,096</td>
</tr>
<tr>
<td>Current liabilities</td>
<td>8,052</td>
<td>6,479</td>
</tr>
<tr>
<td><strong>Equity and liabilities</strong></td>
<td>21,703</td>
<td>19,756</td>
</tr>
<tr>
<td>Cash and bank balances</td>
<td>2,561</td>
<td>2,155</td>
</tr>
<tr>
<td>Securities</td>
<td>2,027</td>
<td>1,522</td>
</tr>
<tr>
<td>Interest-bearing debt</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Interest-bearing debt, cash, bank balances and securities, net end of period</strong></td>
<td>4,588</td>
<td>3,677</td>
</tr>
</tbody>
</table>

**Dividend (DKK)**

- Dividend of DKK 8.00 per share for 2017, corresponding to a payout ratio of 61%
- A total of DKK 1.6 million and a yield of 2.5%*
- Dividend policy: Pay-out ratio of 60-80%

*Based on the share price of DKK 315.00
## Costs – Full year figures

<table>
<thead>
<tr>
<th>DKKm</th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
<th>2017 (∆%)</th>
<th>2016 (∆%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>17,234</td>
<td>15,634</td>
<td>14,594</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>3,881</td>
<td>4,082</td>
<td>5,395</td>
<td>(5%)</td>
<td>(24%)</td>
</tr>
<tr>
<td>Sales &amp; Distribution costs</td>
<td>5,649</td>
<td>5,488</td>
<td>6,706</td>
<td>3%</td>
<td>(18%)</td>
</tr>
<tr>
<td>Administrative expenses</td>
<td>833</td>
<td>805</td>
<td>1,160</td>
<td>3%</td>
<td>(31%)</td>
</tr>
<tr>
<td>R&amp;D costs</td>
<td>2,705</td>
<td>2,967</td>
<td>8,149</td>
<td>(9%)</td>
<td>(64%)</td>
</tr>
<tr>
<td><strong>Total costs</strong></td>
<td>13,068</td>
<td>13,342</td>
<td>21,410</td>
<td>(2%)</td>
<td>(38%)</td>
</tr>
<tr>
<td>EBIT</td>
<td>4,408</td>
<td>2,292</td>
<td>(6,816)</td>
<td>92%</td>
<td>-</td>
</tr>
<tr>
<td>Core EBIT</td>
<td>5,115</td>
<td>3,477</td>
<td>847</td>
<td>47%</td>
<td>311%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2016</th>
<th>2015</th>
<th>2017 (∆%)</th>
<th>2016 (∆%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost of sales</strong></td>
<td>23%</td>
<td>26%</td>
<td>37%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Sales &amp; Distribution costs</strong></td>
<td>33%</td>
<td>35%</td>
<td>46%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Administrative expenses</strong></td>
<td>5%</td>
<td>5%</td>
<td>8%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>R&amp;D costs</strong></td>
<td>16%</td>
<td>19%</td>
<td>56%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>EBIT margin</strong></td>
<td>26%</td>
<td>15%</td>
<td>(47%)</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th></th>
<th>Abilify</th>
<th>Maintena</th>
<th>Rexulti</th>
<th>Selincro</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development milestones/upfront</td>
<td>USD 200m</td>
<td>USD 600m$^3$</td>
<td>EUR 105m$^*$</td>
<td></td>
</tr>
<tr>
<td>Approval milestones</td>
<td>USD 275m$^1$</td>
<td>USD 300m$^2$</td>
<td>Un-disclosed</td>
<td></td>
</tr>
<tr>
<td>Sales milestones</td>
<td>Up to USD 425m depending on sales development</td>
<td>Un-disclosed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**

<table>
<thead>
<tr>
<th></th>
<th>Abilify</th>
<th>Maintena</th>
<th>Rexulti</th>
<th>Selincro</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>20%</td>
<td>45%</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>EU-5, Nordic and Canada</td>
<td>50%</td>
<td>50%</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Other Lundbeck territories</td>
<td>65%$^*$</td>
<td>65%$^*$</td>
<td>Un-disclosed</td>
<td></td>
</tr>
</tbody>
</table>

*$^*$ 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*
Lundbeck’s shares have been listed on the Copenhagen Stock Exchange since 18 June 1999.

Lundbeck has a Deutsche Bank sponsored ADR programme listed in the U.S. (OTC) effective from 18 May 2012.

For additional company information, please visit Lundbeck at: www.lundbeck.com

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**Number of shares** 199,098,422

**Own shares** 388,327

**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

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**IR contact**

**Palle Holm Olesen**
VP; Head of Investor Relations
Mobile: +45 3083 2426
palo@lundbeck.com or polesen3@bloomberg.net

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**Financial calendar**

**9M 2018** 7 November 2018

**FY 2018** 5 February 2019
Thank you!

Lundbeck