NEUROCRINE BIOSCIENCES, INC.

INGREZZA™ (valbenazine) capsules

First FDA Approved Treatment for adults with Tardive Dyskinesia

APRIL 11, 2017
In addition to historical facts, these slides contain forward-looking statements that involve a number of risks and uncertainties. These statements include but are not limited to, statements related to the benefits to be derived from Neurocrine’s products and product candidates, including INGREZZA™; the size of the U.S. market for INGREZZA; the value INGREZZA brings to patients; the timing of INGREZZA’s availability; the ability of Neurocrine to ensure patients have access to INGREZZA; and whether results from INGREZZA’s clinical trials are indicative of real-world results. Among the factors that could cause actual results to differ materially from those indicated in the forward-looking statements are: risks and uncertainties associated with Neurocrine's business and finances in general, as well as risks and uncertainties associated with the commercialization of INGREZZA or the development of the Company’s product candidates; whether INGREZZA receives adequate reimbursement from third-party payors; the degree and pace of market uptake of INGREZZA; risks and uncertainties relating to competitive products and technological changes that may limit demand for INGREZZA; risks associated with the Company's dependence on third parties for development and manufacturing activities related to INGREZZA and the ability of the Company to manage these third parties; risks that additional regulatory submissions, for INGREZZA or other product candidates, may not occur or be submitted in a timely manner; risks that the FDA or other regulatory authorities may make adverse decisions regarding INGREZZA; risks that post-approval INGREZZA commitments or requirements may be delayed; risks that INGREZZA clinical trials may not be predictive of real-world results or of results in subsequent clinical trials; risks that INGREZZA may be precluded from commercialization by the proprietary rights of third parties, or have unintended side effects, adverse reactions or incidents of misuse; risks that the Company will be unable to raise additional funding, if required, to complete development of its product candidates or to commercialize INGREZZA; the Company’s ability to meet any of its previously disclosed milestones or financial projections, and changes to the assumptions underlying such projected milestones or financial projections; and other risks described in the Company’s periodic reports filed with the Securities and Exchange Commission, including without limitation the Company’s Annual Report on Form 10-K for the year ended December 31, 2016. The Company disclaims any obligation to update the statements contained in these slides after the date hereof.
Our Mission: To Relieve Patient Suffering and Enhance Lives

- Tardive Dyskinesia
- Tourette Syndrome
- Parkinson’s Disease
- Endometriosis
- Uterine Fibroids
- Essential Tremor
- Congenital Adrenal Hyperplasia
Oral and Facial Dyskinesia
- Abnormal tongue and lip movements
- Retractions of the corners of the mouth
- Abnormal eyelid closure or eyebrow movements
- Bulging of the cheeks
- Chewing movement

Trunk Dyskinesia
- Shoulder shrugging

Axial Dystonia
- Twisting of the trunk
- Rocking and swaying movements
- Rotatory or thrusting hip movements

Limb Dyskinesia
- “Piano-playing” finger movements
- Tapping foot movements
- Dystonic extensor postures of the toes

Tardive Dyskinesia Overview

**TD IS CAUSED BY EXPOSURE TO DOPAMINE RECEPTOR BLOCKING MEDICATIONS**
- Antipsychotics for schizophrenia, bipolar disorder, depression
- Results in dysregulation of basal ganglia pathways responsible for movement control

**TD AFFECTS APPROXIMATELY 500,000 PATIENTS IN THE US**
- Newer atypical antipsychotics with diverse receptor specificity cause less extrapyramidal side-effects, but persistent TD risk
- Long-acting depot formulations of antipsychotics are also associated with risk of TD
- There has been more than a 400 percent increase in antipsychotics prescriptions from 1990-2015

**NEUROCRINE FOCUSED ON DESIGNING A NOVEL MOLECULE FOR HYPERKINETIC MOVEMENT DISORDERS**
- Selectivity for VMAT2 alone ensures no off-target pharmacology such as dopamine D2 antagonism, a known risk for TD
- Pharmacokinetic characteristics provide simple once daily dosing (without the need for titration)
- Drug properties allow for concomitant use of INGREZZA with existing psychiatric treatment regimens
Patient Example of Tardive Dyskinesia and Effect of INGREZZA™
**INDICATIONS AND USAGE**

INGREZZA is a vesicular monoamine transporter 2 (VMAT2) inhibitor indicated for the treatment of adults with tardive dyskinesia

*Initial dose is 40 mg once daily*

*After one week, increase the dose to the recommended dose of 80 mg once daily*
• Participants continued their current treatment regimens for psychiatric and medical conditions

• Participants who completed the 6-week trial were eligible to enter a 42-week study of double-blind INGREZZA treatment (40 or 80 mg) and follow-up period (weeks 48-52)

INGREZZA™ KINECT 3 Phase III Study Design

### Randomization

<table>
<thead>
<tr>
<th>WEEK -6</th>
<th>WEEK 0</th>
<th>WEEK 6</th>
<th>WEEK 48</th>
<th>WEEK 52</th>
</tr>
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<tbody>
<tr>
<td>Screening</td>
<td>Randomized, Double-blind, Placebo-Controlled Treatment Period</td>
<td>Double-Blind Treatment Period (Extension Period)</td>
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</tr>
<tr>
<td>Placebo</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 mg</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>INGREZZA 40 mg Once Daily</td>
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<tr>
<td>80 mg</td>
<td></td>
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</tr>
<tr>
<td>INGREZZA 80 mg Once Daily</td>
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</tbody>
</table>

*Subjects initially randomized or re-randomized to 80 mg received 40 mg for the first week. Data on file. Neurocrine Biosciences.*
KINECT 3: INGREZZATM Reduction in Abnormal Involuntary Movement Scores at Each Study Visit Through Week Six

AIMS Change From Baseline by Study Visit

<table>
<thead>
<tr>
<th>WEEK 0: Baseline</th>
<th>WEEK 2</th>
<th>WEEK 4</th>
<th>WEEK 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placebo n=76</td>
<td>INGREZZA 40 mg n=70</td>
<td>INGREZZA 80 mg n=77</td>
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<tr>
<td>Improvement</td>
<td>Improvement</td>
<td>Improvement</td>
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</tr>
</tbody>
</table>

LS Mean Change From Baseline (SEM)

-0.3  -0.1  -0.1


KINECT 3: AIMS Change From Baseline for INGREZZA™ Groups

Long-Term Extension Period

AIMS Mean Change (SEM) From Baseline

DB, double-blind. Data presented for ITT analysis set.

AIMS Dyskinesia Total Score Reduced By ≥ 50% From Baseline To Week 6

- Placebo: N=76, 9%
- INGREZZA 40 mg: N=70, 24%
- INGREZZA 80 mg: N=79, 40%

KINECT 3: AIMS Reductions of at Least 50 Percent with INGREZZA™
INGREZZA™: First & Only FDA Approved Treatment for TD
# INGREZZA™ Safety Profile

## Adverse Reactions Reported at ≥2% and >Placebo

<table>
<thead>
<tr>
<th>Category</th>
<th>INGREZZA Once Daily n=262 (%)</th>
<th>Placebo n=183 (%)</th>
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</thead>
<tbody>
<tr>
<td><strong>General Disorders</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somnolence, fatigue and sedation</td>
<td>10.9</td>
<td>4.2</td>
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<tr>
<td><strong>Nervous System Disorders</strong></td>
<td></td>
<td></td>
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<tr>
<td>Anticholinergic effects</td>
<td>5.4</td>
<td>4.9</td>
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<tr>
<td>Balance disorders/falls</td>
<td>4.1</td>
<td>2.2</td>
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<tr>
<td>Headache</td>
<td>3.4</td>
<td>2.7</td>
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<tr>
<td>Akathisia</td>
<td>2.7</td>
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<td><strong>Gastrointestinal Disorders</strong></td>
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<tr>
<td>Vomiting</td>
<td>2.6</td>
<td>0.6</td>
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<tr>
<td>Nausea</td>
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<td>2.1</td>
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<td><strong>Musculoskeletal Disorders</strong></td>
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<tr>
<td>Arthralgia</td>
<td>2.3</td>
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INGREZZA™: First & Only FDA Approved Treatment for TD
INGREZZA™ FDA Approved and Ready for Commercialization

Commercial launch support pillars

1. Best-in-class sales and marketing organization
2. Physician targeting and Tardive Dyskinesia education
3. INGREZZA™ Differentiated profile and label
4. Payor engagement and access
5. INBRACE™: Patient services support hub
INGREZZA™ Comprehensive Support to Optimize Patient Access and Minimize Barriers to Treatment

Patient Support & Coverage

- Benefits investigation
- Reimbursement support
- INGREZZA Start free initial supply
- Education and psychiatric nurse support

Patient Access

- $0 copay program for eligible patients
- Patient assistance program

Support that surrounds you with care.
INGREZZA™: 2017 Expected Key Milestones & Updates

APRIL 12
Launch patient services hub INBRACE

WEEK OF APRIL 24th
Present at American Academy of Neurology Annual Meeting

WEEK OF MAY 20th
Present at American Psychiatric Association Annual Meeting

WEEK OF JUNE 14th
Present at Mental Health America Conference

WEEK OF AUGUST 3rd
Present at American Psychological Association Conference

APRIL

WEEK OF APRIL 17th
40 mg capsules in distribution

MAY

EARLY MAY
Announce Q1 2017 earnings results and pipeline

MAY 1
Full commercial launch of INGREZZA

JUNE

WEEK OF JUNE 5th
Host symposium at Int’l Movement Disorder Society Meeting

SUMMER
Expect to file sNDA for 80 mg capsule

JULY

BY DECEMBER 31
Expect to receive FDA approval for 80 mg capsule

SUMMER
Expect to file sNDA for 80 mg capsule

BY DECEMBER 31
Expect to receive FDA approval for 80 mg capsule
<table>
<thead>
<tr>
<th>Disease</th>
<th>Program</th>
<th>Stage of Development</th>
<th>Partner</th>
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<tbody>
<tr>
<td>Tardive Dyskinesia</td>
<td>INGREZZATM</td>
<td>1</td>
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<tr>
<td>Tourette Syndrome</td>
<td>valbenazine</td>
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<td>Parkinson’s Disease</td>
<td>opicapone</td>
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<td>Bial Ex-US &amp; Canada</td>
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<td>Essential Tremor</td>
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<td>Abbvie Worldwide</td>
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<td>Uterine Fibroids</td>
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