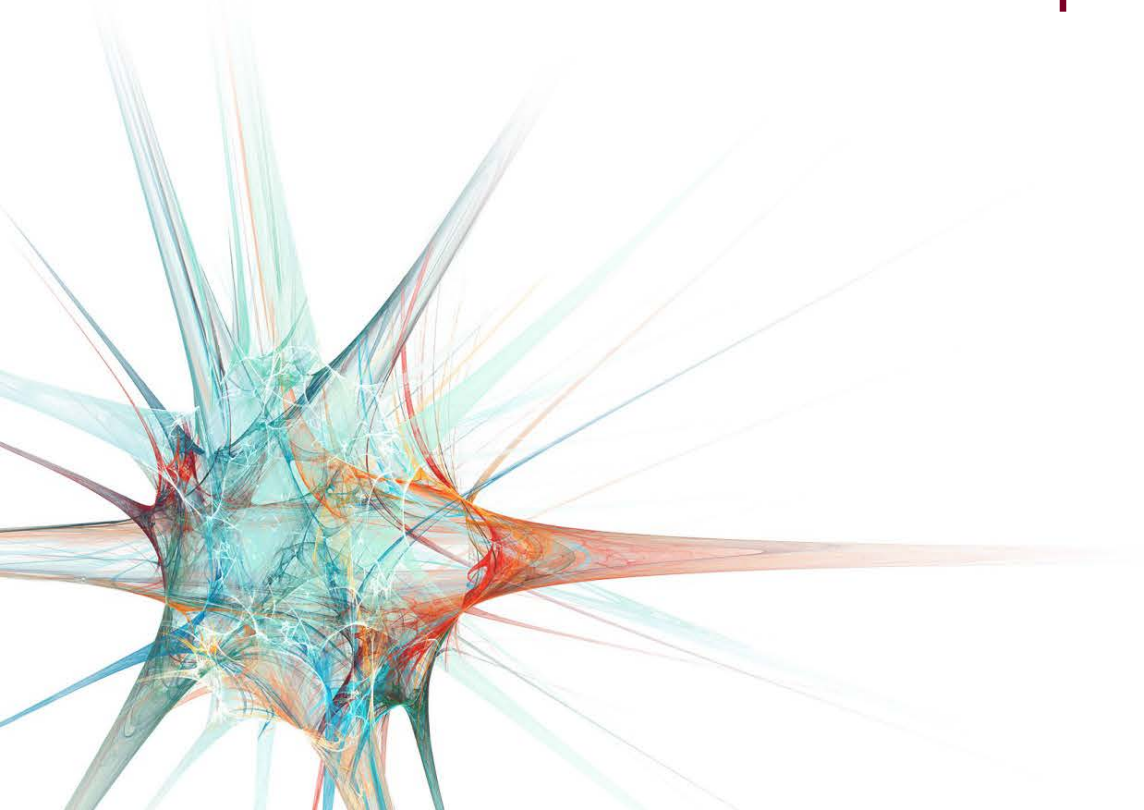




Corporate Presentation

May 2018



Safe Harbor Statement



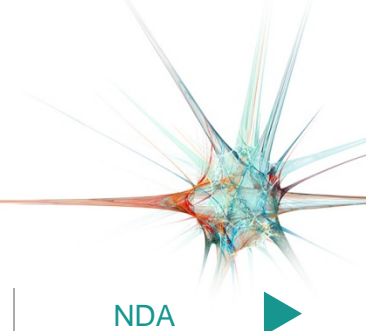
This presentation contains “**forward-looking statements**” within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements concern our product candidates, our development efforts, our collaborations, our technology, our intellectual property, our financial condition, our plans and our development programs. These statements involve risks, uncertainties and assumptions, and are based on the current estimates and assumptions of the management of Intra-Cellular Therapies, Inc. (the “Company” or “ITCI”) as of the date of this presentation and are subject to uncertainty and changes. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include, among others, those set forth in our Annual Report on Form 10-K for the year ended **December 31, 2017** filed with the Securities and Exchange Commission, as well as any updates to those risk factors filed from time to time in our periodic and current reports. All statements contained in this presentation are made only as of the date of this presentation, and the Company undertakes no duty to update this information unless required by law.

Intra-Cellular Therapies, Inc. (ITCI)

- Focus on advancements in the treatment of CNS disorders
 - Lead program: Lumateperone (ITI-007)
 - For the treatment of schizophrenia
 - Positive pre-NDA meeting with the FDA held in Q1 '18
 - Anticipated NDA filing for schizophrenia in mid-2018
 - Fast track designation granted in late 2017
 - Other Phase 3 programs:
 - Bipolar depression
 - Agitation associated with dementia, including Alzheimer's disease
 - Leader in the field of PDE1 inhibitors
 - ITI-214 being developed for the treatment of Parkinson's disease and other CNS and non-CNS disorders including heart failure
- Founded in 2002, leveraging technology from the lab of Nobel Laureate Dr. Paul Greengard
- Located in New York City
- Well-capitalized
 - 3 – \$437.0 million in cash, cash equivalents and investment securities at 03/31/2018



ITCI Therapeutic Pipeline

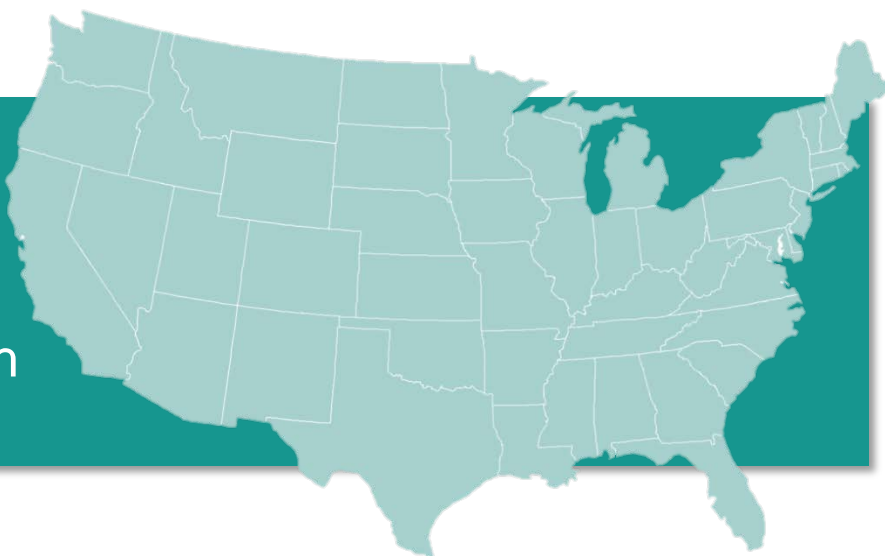


Schizophrenia, A Common Disabling Neuropsychiatric Disease



- Schizophrenia affects approximately **1%** of the global population¹
- Schizophrenia is one of the 25 leading causes of disability worldwide²

- **2.2 million** adults in the United States have schizophrenia¹
- **~100,000** people are newly diagnosed with schizophrenia each year in the United States¹

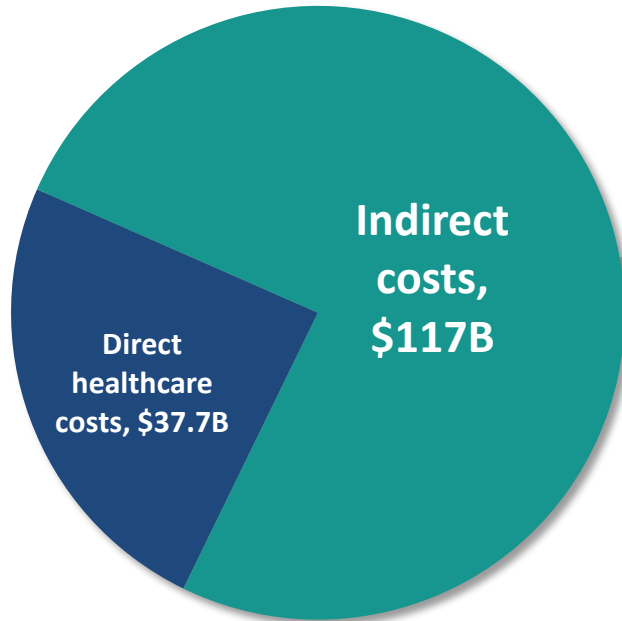


1. Schizophrenia facts and statistics. Schizophrenia.com website. Accessed April 9, 2017.

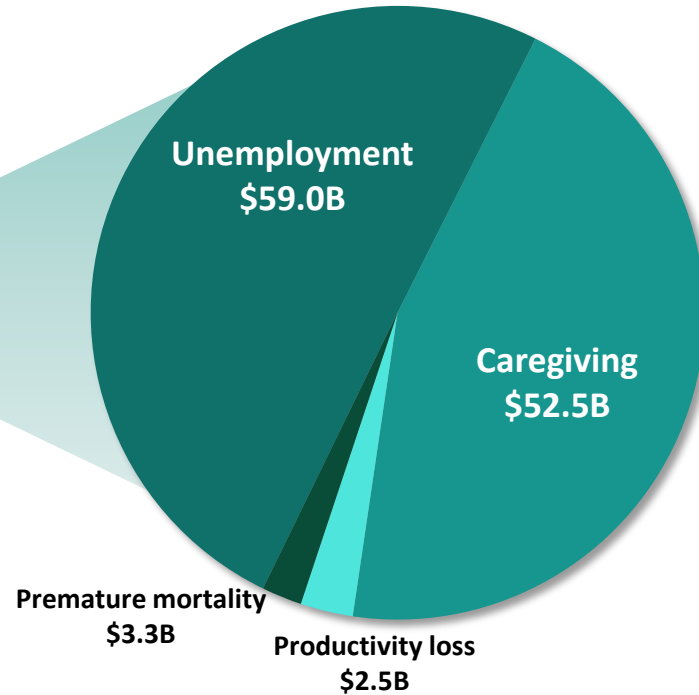
2. Chong HY, et al. *Neuropsychiatr Dis Treat*. 2016;12:357-373.

Economic Burden of Schizophrenia Exceeds \$154 Billion in the United States

Schizophrenia: Direct and Indirect Costs¹



Indirect Costs¹



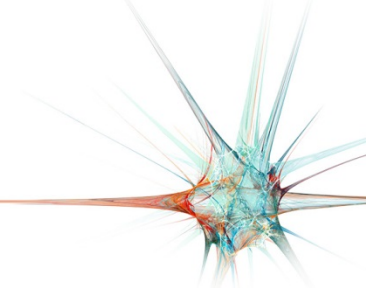
It is estimated that only about one-third of patients with schizophrenia can work regularly.^{2,3}

Costs of schizophrenia exceed many common conditions, including stroke, hypertension, breast/cervical cancers⁴

Onset in early adulthood leads to life-long disability and economic burden

1. Cloutier M, et al. *J Clin Psychiatry*. 2016;77(6):764-771.
2. Albus M. *Pharmacopsychiatry*. 2012;45(suppl 1):S31-S35.
3. Bellack AS, et al. *Schizophr Bull*. 2007;33(3):805-822.
4. Kockaya G, et al. *Health*. 2010;2(10):1174-1178.

Lumateperone is Designed to Address Unmet Needs in Schizophrenia



- Existing therapies have significant adverse events including extrapyramidal symptoms, akathisia, metabolic and cardiovascular dysfunction
 - Impact quality of life
 - Lead to poor adherence with 74% of US patients discontinuing medication within 18 months (CATIE Study, 2005)
- Only positive symptoms are effectively treated by existing drugs; negative symptoms and depression are not effectively treated
- Social function is not improved

We believe the unique pharmacology of lumateperone can translate into an advancement in the treatment of schizophrenia as a single, stand-alone drug therapy

Lumateperone: Novel, First-in-Class Molecule With an MOA That Predicts Clinical Benefits Across CNS Disorders

	<u>nM Ki</u>
5HT-2A	0.5
D2	32
D1	52
SERT	62

5-HT_{2A} Receptor Antagonist

- Improves sleep quality
- Reduces anxiety and hostility
- Enhances antipsychotic and antidepressant activity

Glutamatergic Phosphoprotein Modulator

NMDA & AMPA Enhancement via D1

- Efficacy for negative and positive symptoms
- Improved cognition
- Rapid-acting antidepressant activity

Dopamine Phosphoprotein D₂ Modulator (DPPM)

D₂ Pre-synaptic partial agonist and post-synaptic antagonist

- Antipsychotic efficacy for positive symptoms
- Reduced agitation

PHARMACOLOGY PREDICTS ROBUST EFFICACY ACROSS A BROAD RANGE OF SYMPTOM DOMAINS

AND PREDICTS HIGHLY FAVORABLE SAFETY/TOLERABILITY PROFILE

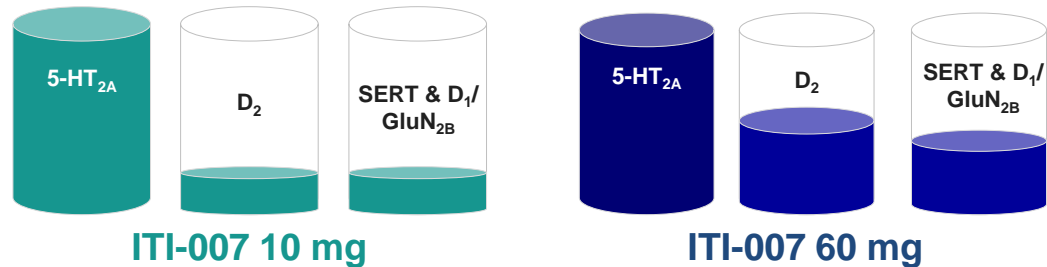
Serotonin Reuptake Inhibitor

- Antidepressant activity

Snyder GL et al. (2015). Functional profile of a novel modulator of serotonin, dopamine, and glutamate neurotransmission. *Psychopharmacology (Berl)* 232(3):605-21.

Lumateperone: Differentiated Pharmacology Provides Opportunities to Treat Multiple CNS Disorders

Broad separation between 5-HT_{2A} and other target affinities allows for full saturation of 5-HT_{2A} while adding only as much D₂, D₁/GluN_{2B} (glutamate), and SERT as needed

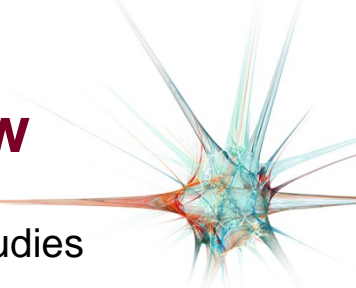


LOWER DOSES (1-10 mg)

HIGHER DOSES (40-60 mg)

Behavioral and Psychiatric Disturbances in AD and PD	Schizophrenia
Sleep Disturbances Associated With Neurologic and Psychiatric Disorders	Bipolar I and II Disorder (Depressive Episodes)
Behavioral Disturbances Associated With Autism Spectrum Disorder	Bipolar I Disorder (Manic Episodes)
Sleep Maintenance Insomnia	Major Depressive Disorder (MDD)

Lumateperone Schizophrenia Program Overview



- Lumateperone (ITI-007 60 mg) met primary endpoint in 2 entirely U.S.-based studies
- Well-tolerated with a safety profile similar to placebo in all studies
- Once daily oral dosing with no need for titration to 60 mg
- Two studies with risperidone as active control showed statistically significant safety & tolerability benefits for lumateperone over risperidone
- Lumateperone and risperidone demonstrated similar efficacy on primary endpoint in Study '005
- Positive Pre-NDA meeting with the FDA held in Q1 2018
- Received Fast Track designation; anticipated NDA filing in mid-2018

3 Large Randomized, Double-Blind Trials

Primary outcome measure: change from baseline on Positive and Negative Syndrome Scale (PANSS) Total Score

ITI-007-005 ¹	ITI-007-301	ITI-007-302
N=335	N=450	N=696
4-week treatment period:	4-week treatment period:	6-week treatment period:
<ul style="list-style-type: none"> - ITI-007 (60 mg or 120 mg) - Risperidone 4 mg or - Placebo 	<ul style="list-style-type: none"> - ITI-007 (60 mg or 40 mg) or - Placebo 	<ul style="list-style-type: none"> - ITI-007 (60 mg or 20 mg) - Risperidone 4 mg or - Placebo

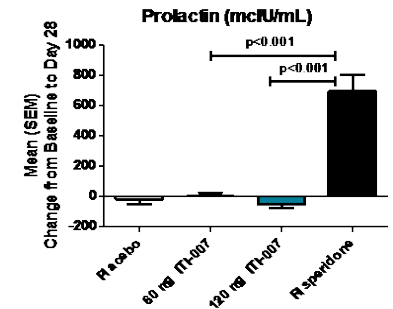
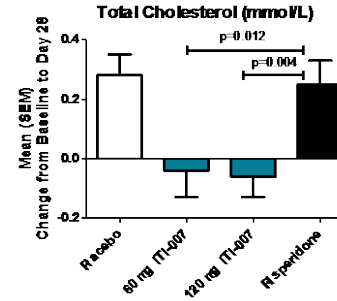
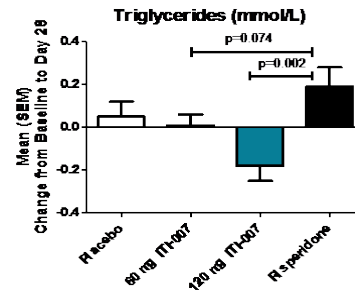
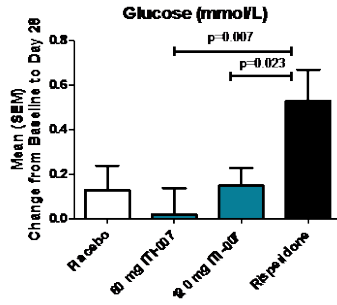
Open-Label Safety Switching Study with ITI-007 60 mg

- First Part (N=302) 6-week treatment duration - Completed
- Second Part with 1-year treatment duration - Ongoing

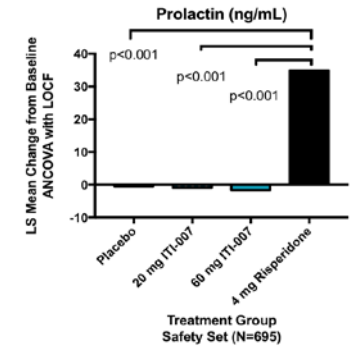
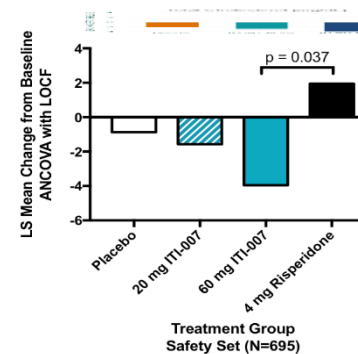
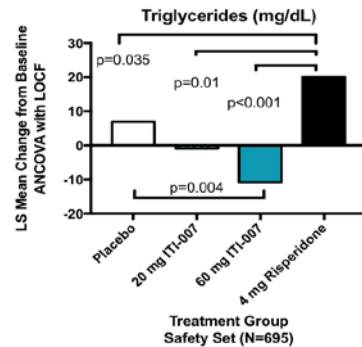
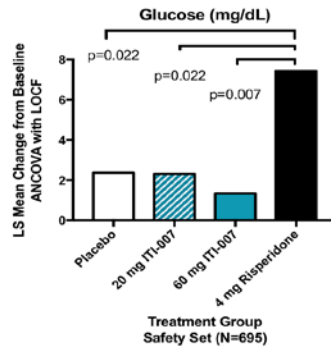
¹Lieberman et al., Biological Psychiatry. 2016 June; 79:952–961.

Acute Controlled Studies Demonstrate Safety Profile Similar to Placebo on Key Parameters And Superiority Over Risperidone

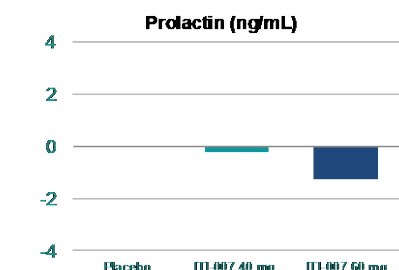
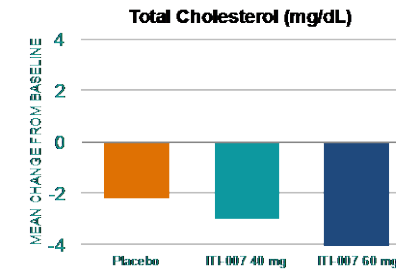
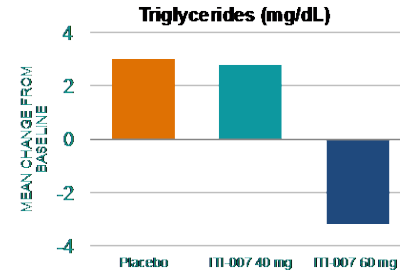
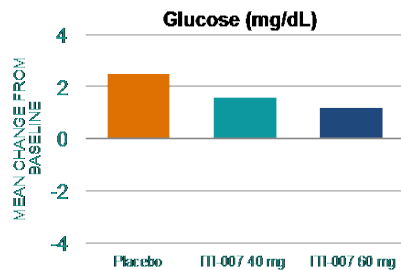
STUDY 005



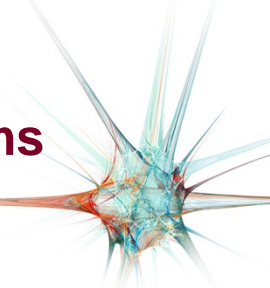
STUDY 302



STUDY 301

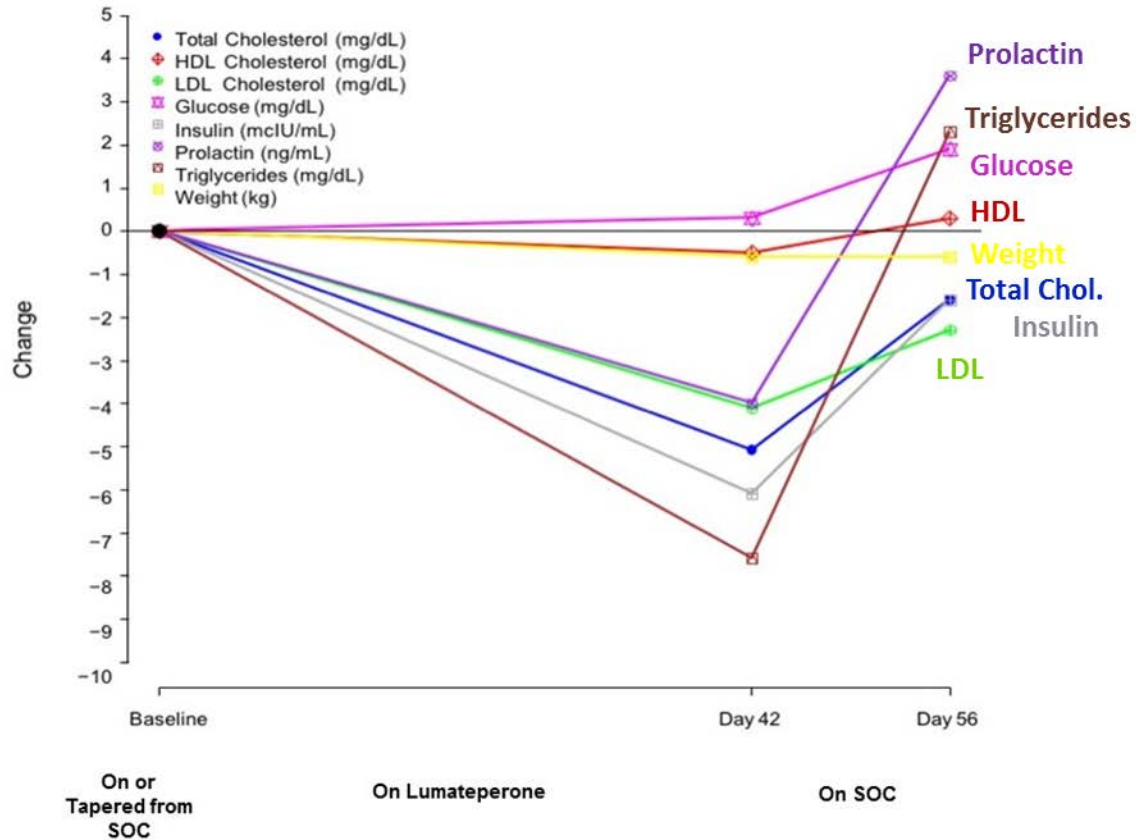


Lumateperone Profile Confirmed in a 6-Week Open-label Safety Switching Study in Patients with Stable Schizophrenia Symptoms

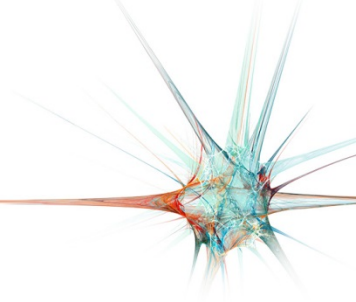


- The study evaluated stable patients with schizophrenia in an outpatient setting similar to common clinical practice
- The study assessed both the impact of switching to lumateperone (ITI-007 60 mg) from standard-of-care (SOC) antipsychotics as well as the impact of switching back to SOC from lumateperone (no dose titration necessary for lumateperone)
- Lumateperone was generally well tolerated with a favorable safety profile. The most frequent drug-related AE was somnolence occurring at a low rate when administered in the evening
- Statistically significant improvements from SOC baseline were observed in body weight, cardiometabolic and endocrine parameters over 6 weeks of treatment with lumateperone and worsened again when switched back to SOC medication
- Symptoms of schizophrenia did not worsen upon switch to lumateperone from SOC; rather statistically significant improvement from baseline was observed in PANSS mean total score (with greater improvements seen in subgroups of patients with comorbid symptoms of depression or prominent negative symptoms)

In Open Label Safety Switching Study, Key Cardiometabolic Parameters Improved on Lumateperone and Worsened Again After Switch Back to SOC (N=302)



Summary: Lumateperone Efficacy and Safety in Schizophrenia



- Two large, well-controlled positive studies and supportive data from a third study collectively provide evidence of the efficacy and safety of lumateperone (ITI-007 60 mg) for the treatment of schizophrenia
- In all three studies, lumateperone was well-tolerated with a safety profile similar to placebo
- In the 2 studies with risperidone as the active control, lumateperone was statistically significantly better than risperidone on key safety and tolerability parameters
- In open label safety switching study, key cardiometabolic parameters improved on lumateperone and worsened again after switch back to SOC

Lumateperone: Advancing Treatments in Bipolar Depression

Bipolar disorder is a highly prevalent disease (2.6% 12-month prevalence in US adults; NIMH) with bipolar depression being the predominant clinical presentation

Depressive episodes are longer and recur more often than manic/hypomanic episodes

Safety and tolerability trade-offs limit use of current agents

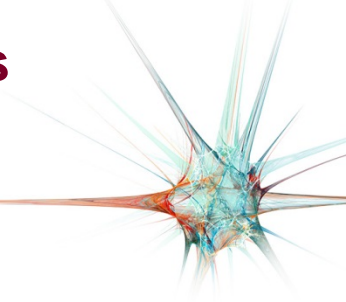
Few treatment options available

Lumateperone for the Treatment of Bipolar Depression and Other Depressive Disorders



- In previous studies depressed schizophrenia patients experienced robust improvements in depressive symptoms
- Well-tolerated with a safety profile similar to placebo in all studies completed to date
- Recent preclinical data support potential for rapid-acting antidepressant effects
- Bipolar depression Phase 3 clinical program includes
 - Two monotherapy studies
 - One adjunctive study (lithium or valproate)
- Planning late-stage studies in depressive disorders to begin in 2018

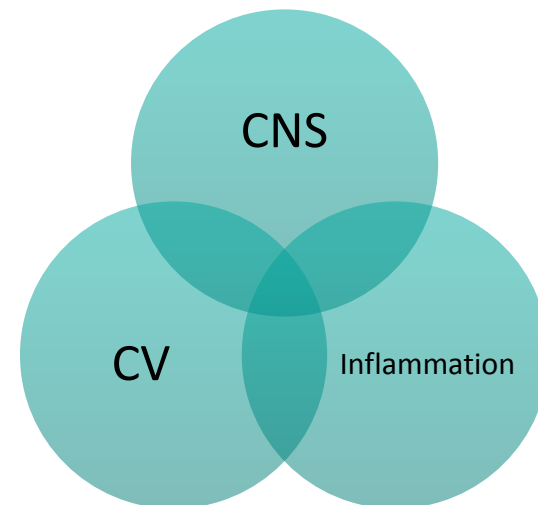
Lumateperone for the Treatment of Agitation in Alzheimer's Disease



- **Large Market Potential**
 - 44.4 million people worldwide with AD
 - >50% with behavioral disturbances
 - Agitation is a leading cause of early institutionalization
 - Affects patients, relatives, and caregivers
- **Unmet Need**
 - Currently no approved agents
- **Low dose lumateperone targeted to reduce agitation, including aggression**
- **Potential benefit across a wide range of behavioral disturbances**
 - Improved sleep & restored circadian rhythms
 - Antidepressant and anxiolytic efficacy/reduced emotional distress
 - Antipsychotic efficacy
- **Phase 1/2 study demonstrated a favorable safety profile in geriatric subjects and patients with dementia**
- **Clinical Development Plan**
 - Phase 3 clinical trial in the treatment of agitation in patients with dementia ongoing

PDE1 Inhibition: Novel Approach to Modulation of Intracellular Signaling with Broad Therapeutic Potential

- PDE1 enzymes are highly active across a variety of neurological and cardiovascular diseases
- Our PDE1 inhibitors are designed to reestablish normal function in these disease states
 - Inhibitors of PDE1 block the breakdown of cyclic nucleotides (cAMP, cGMP) potentiating downstream intracellular signaling
- Within our PDE1 portfolio, ITI-214 is the most advanced
- In four completed Phase I studies, ITI-214 was generally well tolerated with a favorable safety profile



We believe ITI-214 provides an opportunity to treat age-related diseases including CNS, cardiovascular, and inflammatory disorders

ITI-214 for the Treatment of Parkinson's Disease



- **Large Market Potential**

- Over 2.2 million patients in the US and Europe
- Progressive neurodegenerative disorder with motor and non-motor symptoms

- **Unmet Need**

- Dopamine replacement therapies (L-DOPA as gold standard) address early motor symptoms, but are insufficient as disease progresses and have limiting side effects
- Effective treatments to address non-motor symptoms are lacking

- **ITI-214 as a multi-pronged approach to the treatment of PD**

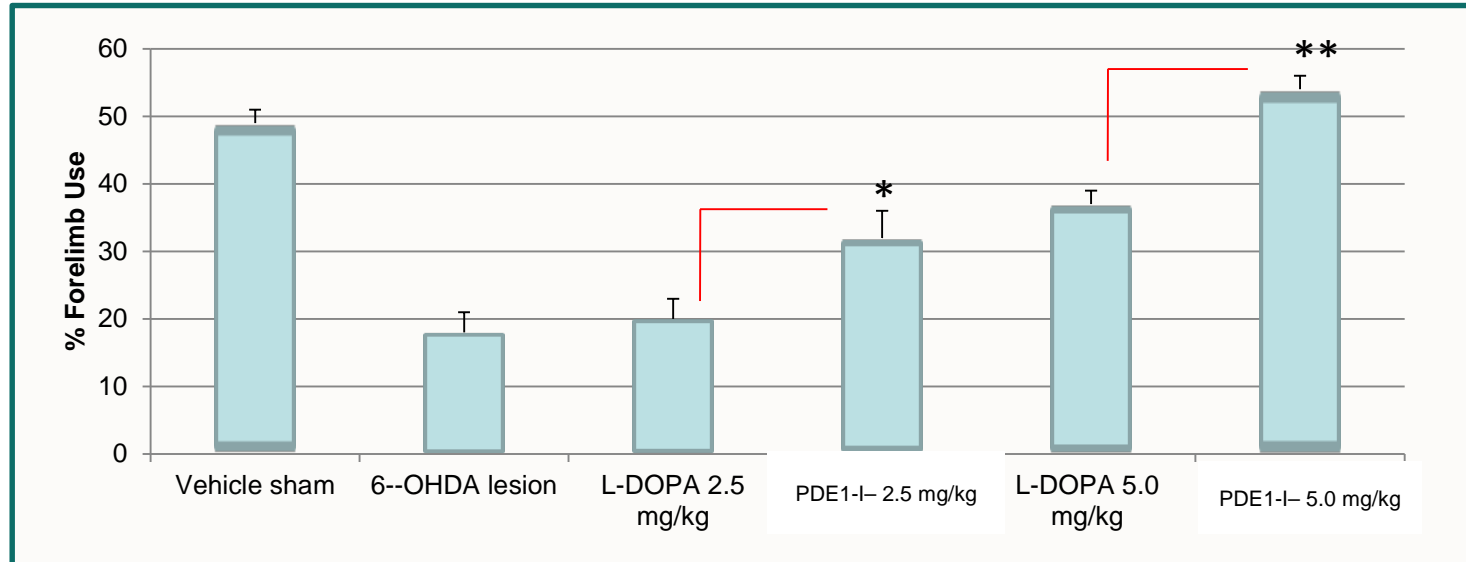
- Symptomatic treatment for primary motor symptoms
- Address non-motor symptoms
- Potentially disease modifying

- **Clinical Development Plan**

- Phase 1/2 clinical trial of ITI-214 in patients with Parkinson's disease to evaluate safety and tolerability is ongoing (Results by 2H 2018)
- Clinical conduct has been completed for the first three cohorts (1, 3, and 10 mg). At these doses, ITI-214 was safe and generally well tolerated
- Study expanded to include a 30 mg dose cohort and clinical conduct is ongoing

PDE1 Inhibitors Improve Motor Symptoms in Models of PD by Enhancing Dopamine Signaling

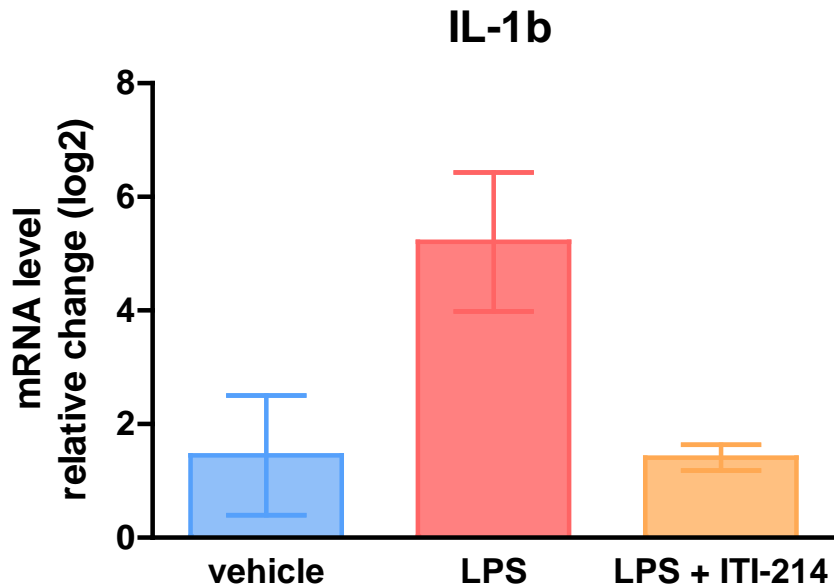
Preclinical evidence shows that PDE1 inhibitors restore affected limb use in animal models of PD



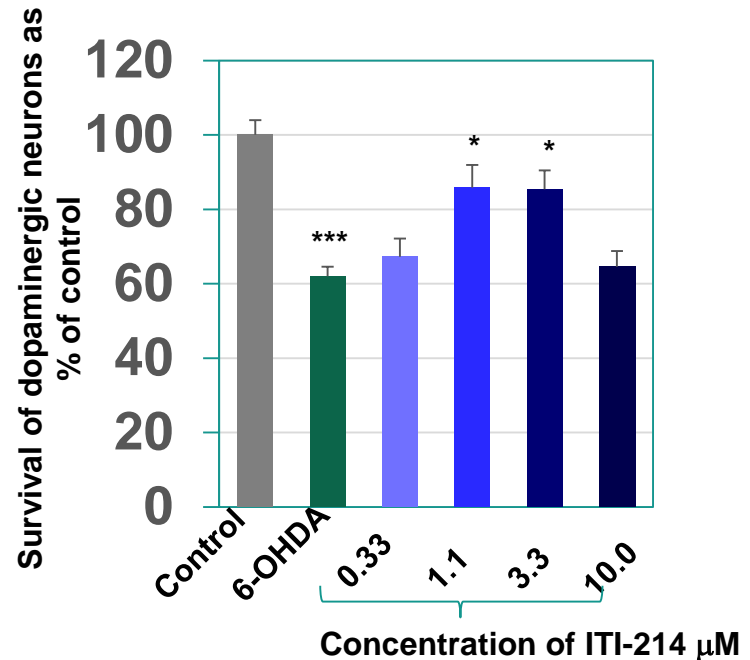
- Stand-alone treatment in early PD may be possible where sufficient endogenous dopamine is available to support synaptic activity
- L-DOPA & DA agonist sparing as disease progresses to prolong utility of DA replacement strategies and reduce side effects
- Additional preclinical data indicate improved cognition and enhanced wakefulness by PDE1 inhibition, without psychomotor stimulation

ITI-214 Prevents Neuroinflammation and is Neuroprotective

ITI-214 prevents increases in pro-inflammatory cytokines, such as IL-1 β in microglia



In animals with lesions in the part of the brain where dopamine neurons are lost in PD, ITI-214 improves dopamine neuron survival



ITI-214: Represents A Novel Mechanism of Action for The Treatment of Heart Failure



- **Medical Need**

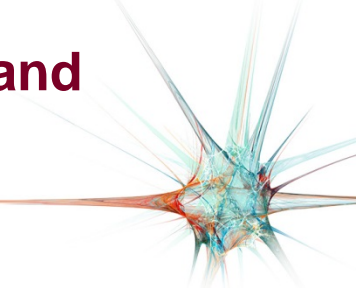
- Heart failure (HF) affects approximately 5.7 million people and has a mortality rate of ~50% within 5 years
- Need for approaches that improve heart function acutely and with longer exposure, also counter maladaptive remodeling of the ventricle

- **Preclinical Data Has Shown Beneficial Effects on Cardiac Function**

- PDE-1 inhibition increases cardiac contractility and cardiac output
- Potential for attenuation or reversal of cardiac remodeling

- **Preparations under way to initiate a randomized, double-blind, placebo-controlled study of escalating single doses of ITI-214 in patients with systolic heart failure**

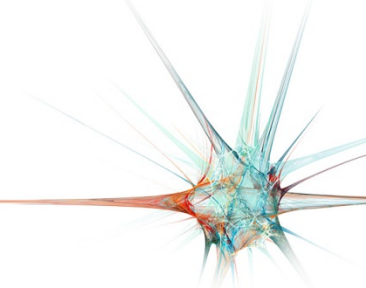
ITI-333 For Treatment of Substance Use Disorders, Pain, and Mood Disorders



Receptor or Transporter	Ki (nM)
Serotonin 5-HT _{2A}	8.3
Dopamine D ₁	50
Mu opioid (MOP)	11

- High affinity at serotonin 5-HT_{2A}, dopamine D₁ and mu opiate receptors (MOP), acting as a partial agonist at MOP receptors
- Exhibits potent morphine-like analgesia in animal models, yet attenuates several morphine mediated behaviors
- No safety concerns have been noted with ITI-333 in animal models
 - Does not alter either GI motility or respiratory function
 - Elicits no significant signs of physical dependence or withdrawal

Key Financial Information



KEY METRICS

Total Cash, Cash Equivalents, and Investments⁽¹⁾	\$437.0 million
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Total Debt⁽¹⁾	\$0.0 million
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Common Shares Outstanding⁽¹⁾	54,694,718
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Stock Options / Restricted Stock Units Outstanding⁽¹⁾	5,321,553
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(1)As of March 31, 2018 (unaudited)

Management Team



Sharon Mates, PhD, Founder, Chairman, President & Chief Executive Officer

Andrew Satlin, MD, Executive Vice President & Chief Medical Officer

Michael I. Halstead, Senior Vice President and General Counsel

Kimberly Vanover, PhD, Senior Vice President of Clinical Development

Robert Davis, PhD, Senior Vice President, Chief Scientific Officer

Larry Hineine, Vice President of Finance & Chief Financial Officer

Jennifer Rinaldo, Vice President, Commercial Development

Juan Sanchez, MD, Vice President, Corporate Communications and Investor Relations

Board of Directors



Sharon Mates, PhD, Chairman, Founder, President & Chief Executive Officer,
Intra-Cellular Therapies

Christopher Alafi, PhD, General Partner, Alafi Capital

Richard Lerner, MD, Institute Professor & Former President,
The Scripps Research Institute

Joel Marcus, JD, CPA, Chairman, Founder, President & Chief Executive Officer,
Alexandria Real Estate Equities (NYSE: ARE)

Rory B. Riggs, MBA, Co-Founder and Chairman, Royalty Pharma;
Founder and CEO, Syntax Analytics; Managing Member, New Ventures;
Managing Member, Balfour

Robert L. Van Nostrand, CPA, Chairman, Yield10 Bioscience; Board Member,
Achillion Pharmaceuticals and Enumeral Biomedical Holdings; Former CFO, OSI
Pharmaceuticals



Intra-Cellular
T H E R A P I E S

