An Orphan Disease Company by Design

Jefferies 2016 Healthcare Conference
June 8, 2016
Forward-Looking Statements

This presentation and the oral commentary contain “forward-looking” statements that involve substantial risks and uncertainties. All statements other than statements of historical facts, including statements regarding our future financial condition, timing for and outcomes of clinical results, business strategy and plans and objectives for future operations, are forward looking statements. These forward-looking statements include terminology such as “believe,” “will,” “may,” “estimate,” “continue,” “anticipate,” “contemplate,” “intend,” “target,” “project,” “should,” “plan,” “expect,” “predict,” “could,” “potentially” or the negative of these terms Forward looking statements are our current statements regarding our intentions, beliefs, projections, outlook, analyses or current expectations concerning, among other things, our ongoing and planned clinical development, the timing of and our ability to initiate or enroll clinical trials, and our ability to make regulatory filings and obtain and maintain regulatory approvals for Sarasar, Bestatin, PEG IFN Lambda and our other product candidates, our intellectual property position, the potential safety, efficacy, reimbursement, convenience clinical and pharmaco-economic benefits of our product candidates, commercial opportunities, including potential market sizes and segments, our ability to commercialize, expectations regarding clinical trial data and FDA outcomes, our results of operations, cash needs, spending of the proceeds from this offering, financial condition, liquidity, prospects, growth and strategies, the industry in which we operate and the trends that may affect the industry or us.

Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements represent our beliefs and assumptions only as of the date of this presentation. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons why actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future.

© 2016 Eiger Biopharmaceuticals, Inc., all rights reserved.
Sarasar is a registered trademark of Merck Sharp & Dohme Corp. Bestatin is a trademark of Nippon Kayaku Co., Ltd. All other trademarks belong to their respective owners.
Eiger BioPharmaceuticals, Inc.
An Orphan Disease Company by Design

• Founded in 2008

• Focused on novel targets in orphan diseases

• 5 clinical programs in Phase 2

• Experienced pharma team across functional areas
Business Strategy to Maximize Efficiency
Goal: Rapid Path to Registration

• **Identify novel biology in targeted orphan diseases**
  – Scientific and academic collaborations at Stanford University

• **License well-characterized assets against novel targets**
  – Preclinical and clinical experience already generated

• **Translate science into the clinic rapidly**
  – Cost efficient and time efficient clinical data in target disease

• **Develop markets and prepare for commercialization**
  – Patient identification, KOL engagement, data dissemination, education
## Development Pipeline

**Clinical Data Engine**

<table>
<thead>
<tr>
<th>Product</th>
<th>Indication</th>
<th>Phase II</th>
<th>Approved Treatments</th>
<th>Phase 2 Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarasar® (lonafarnib)</td>
<td>Hepatitis Delta</td>
<td></td>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>PEG IFN Lambda</td>
<td>Hepatitis Delta</td>
<td></td>
<td></td>
<td>2017</td>
</tr>
<tr>
<td>Exendin (9-39)</td>
<td>Hypoglycemia</td>
<td></td>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>Bestatin™ (ubenimex)</td>
<td>Pulmonary Arterial</td>
<td>✓</td>
<td></td>
<td>2017</td>
</tr>
<tr>
<td></td>
<td>Hypertension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bestatin™ (ubenimex)</td>
<td>Lymphedema</td>
<td></td>
<td></td>
<td>2017</td>
</tr>
</tbody>
</table>
Hepatitis Delta Virus
HDV

<table>
<thead>
<tr>
<th>Indication</th>
<th>Drug Candidate</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis Delta</td>
<td>Sarasar® (lonafarnib)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hepatitis Delta Virus
The Most Severe Form of Viral Hepatitis

• **HDV is the most severe form of viral hepatitis**
  - More rapid progression to liver cirrhosis and liver cancer
  - 5-7x more likely to develop cirrhosis and HCC vs HBV

• **HDV is always associated with HBV Infection**
  - HDV steals HBsAg to complete its envelope

• **Final step in replication involves prenylation**
  - HDV hijacks prenylation, a host process

• **No FDA approved Rx for HDV**
  - PEG IFN α demonstrates modest benefit

• **HDV worldwide prevalence is 15 - 20 million**
  - HDV Orphan Designation granted in US, EU
Sarasar® (ilonafarnib) for HDV
Well-Characterized Clinical Stage Lead Compound

- Small molecule, oral, prenylation inhibitor
- Well-characterized through Phase 3
  - >2,000 patients dosed in oncology program by Merck (Schering)
  - Dose limiting toxicity is GI (class effect)
- Prenylation is a host target; no resistance observed
- Over 100 HDV patients dosed across international sites
  - NIH POC published in The Lancet Infectious Diseases 2015
- Orphan Designation, Fast Track Granted
  - Fixed dose combination offers extended protection

Sarasar® (Itonafarnib) Phase 2 HDV Program
103 HDV Infected Patients Dosed

- **Proof of Concept**
  - Monotherapy \( N = 14 \) COMPLETE

- **LOWR HDV – 1**
  - Combinations +/- PEG IFN α \( N = 15 \) COMPLETE

- **LOWR HDV – 2**
  - Dose Finding +/- PEG IFN α \( N = 38 \) DOSING

- **LOWR HDV – 3**
  - Duration \( N = 21 \) DOSING

- **LOWR HDV - 4**
  - Titration \( N = 15 \) DOSING

LOWR HDV = LO(nafarnib) With Ritonavir in HDV
LOWR HDV – 2: “Dose Finding” Study
Tolerability, Longer Dosing, Triple Combination

High Dose

Months 1-3

N=16

LNF 100 mg BID + RTV 100 mg QD

Months 4-6

Lower Dose

N=8

LNF 50 mg BID
or
LNF 25 mg BID
+ RTV 100 mg BID

Triple Combination

N=14

LNF 50 mg BID
or
LNF 25 mg BID
+ RTV 100 mg BID + PEG IFN α 180 mcg QW

N=38
Lower Doses Combines Efficacy with Tolerability
May Enable Longer Treatment

Mean Change in Log HDV RNA

-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 0.0

LOWR HDV – 2

LNF 50 mg BID + RTV 100 mg BID (N=5)
LNF 50 mg BID + RTV 100 mg BID + PEG IFN α 180 mcg QW (N=3)
LNF 25 mg BID + RTV 100 mg BID (N=4)
LNF 25 mg BID + RTV 100 mg BID + PEG IFN α 180 mcg QW (N=2)

EOT
(LOWR HDV - 2)
Lower Dose LNF Enables Longer Treatment
Shows Rapid Decline vs PEG IFN α Alone

Mean Change in Log HDV RNA

-3.5 -3.0 -2.5 -2.0 -1.5 -1.0 -0.5 0.0

Week

0 4 8 12 16 20 24 28 32 36 40 44 48

LNF 50 mg BID + RTV 100 mg BID (N=5)
LNF 50 mg BID + RTV 100 mg BID + PEG IFN α 180 mcg QW (N=3)
LNF 25 mg BID + RTV 100 mg BID (N=4)
LNF 25 mg BID + RTV 100 mg BID + PEG IFN α 180 mcg QW (N=2)
PEG IFN α 180 mcg QW + tenofovir (N=91)

LOWR HDV – 2

EOT (LOWR HDV - 2) ↓

EOT (HIDIT - 2) ↓

HIDIT – 2

PEG IFN α

tenofovir

LOWR HDV – 2

EOT

PEG IFN α 180 mcg QW + tenofovir (N=91)
Improved GI Tolerability with Lower Dose LNF

<table>
<thead>
<tr>
<th>Gastrointestinal AE</th>
<th># of Patients Experiencing AE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High Dose (LNF ≥75 mg BID) N = 16 / 16</td>
</tr>
<tr>
<td>Grade 1</td>
<td>0</td>
</tr>
<tr>
<td>Grade 2</td>
<td>5</td>
</tr>
<tr>
<td>Grade 3</td>
<td>8</td>
</tr>
<tr>
<td>Dose Reductions</td>
<td>8</td>
</tr>
<tr>
<td>Discontinuations</td>
<td>2</td>
</tr>
</tbody>
</table>

- Lower doses demonstrate better GI tolerability than higher doses
- Mostly grade 1 gastrointestinal AEs observed with lower doses

GI AE = nausea, diarrhea, fatigue, weight loss, anorexia, vomiting

* Grade 3 AE resolved within 3 weeks
ALT Normalization
In 65% of Patients at Week 12*

Number of Patients

Elevated ALT at Baseline

Elevated ALT at Week 12

N = 17

N = 6

Normal ALT
Male < 45
Female < 34

* 23 of 37 patients have Week 12 data
• Activity demonstrated in all patients with all doses of LNF

• Lower doses identified that improve GI tolerability

• Longer dosing durations now possible with tolerability

• HDV RNA negativity achieved with lower LNF doses

• ALT normalization with reduction in HDV RNA

• Addition of PEG IFN alfa offers promising treatment options

• HDV RNA negativity rate at EOT will guide next studies
Sarasar® (lonafarnib) in HDV
Phase 2 Results Expected in 2016 / 2017

Phase 2 LOWR HDV – 2
N = 38

Phase 2 LOWR HDV - 3
N = 21

Phase 2 LOWR HDV - 4
N = 15

Interim Data
EOT Data
Post TRx Data

2015
2016
2017
Reducing HDV RNA Improves Survival
Improved Clinical Benefit without Clearance of HDV RNA

Interferon Alfa for 48 weeks with 15 year Follow Up

Change in HDV RNA  

Survival

Farci et al, Gastroenterology 2004: Long-Term Benefit of Interferon α Therapy of Chronic HDV: Regression of Advanced Hepatic Fibrosis
Fewer Clinical Events with IFN Alfa
HDV RNA Loss Improves Long-term Clinical Outcomes

**Interferon Alfa for 48 weeks with 5 year Follow Up**

- Long term clinical outcomes
  - IFN alfa treatment in HDV
- Retrospective analysis
  - single cohort study
- 136 anti-HDV positive patients
- Median follow-up: 5.2 years
  - Range 0.6 - 18.8 years

---

Wranke et al. *J Hepatology* 2016: Does Antiviral Treatment Affect the Clinical Long-term Outcome of Hepatitis Delta?
Eiger BioPharmaceuticals Announces License of Worldwide Rights to Pegylated Interferon Lambda-1a from Bristol-Myers Squibb

Including Rights for All Indications and Associated Patents

PALO ALTO, CALIF, April 20, 2016 /PRNewswire/ -- Eiger BioPharmaceuticals, Inc. (NASDAQ: EIGR) announced today that it has licensed Pegylated Interferon Lambda-1a (“Lambda”), a novel, well-characterized, first in class Type III interferon to be studied as an investigational therapy for hepatitis delta virus (HDV) infection, from Bristol-Myers Squibb. Lambda has been administered in clinical trials involving over 3,000 subjects. It has not been approved for any indication. Eiger plans to evaluate Lambda as a potential monotherapy and combination treatment for chronic HDV infection, the most aggressive and deadly form of human viral hepatitis.
**PEG IFN Lambda**
*A targeted interferon for HDV*

- A novel, first in class Type III interferon
  - Native Lambda is generated by human immune system in viral infections
- Binds to a unique receptor versus Type I interferons
  - Highly expressed on hepatocytes
  - Limited expression on hematopoietic cells and CNS cells
- Uses similar downstream signaling pathway as Type I interferons
- Greater than 3,000 patients in 17 clinical trials (HCV / HBV)
- Antiviral activity with less of the typical IFN alfa related side effects
- Anti HDV activity demonstrated in humanized liver mouse model
Eiger HDV Program
Phase 2 Results Expected in 2016 / 2017 / 2018

Phase 2 LOWR HDV – 2
N = 38

Interim Data

EOT Data
2016

Phase 2 LOWR HDV - 3
N = 21

EOT Data
2016

Post TRx Data
2017

Phase 2 LOWR HDV - 4
N = 15

EOT Data
2016

Post TRx Data
2017

Lambda Monotherapy
N = 20

EOT Data
2017

Lambda Combination Therapy
N = 20
# Potential Registration Pathways

**Building an HDV Franchise**

<table>
<thead>
<tr>
<th>HDV Registration Options</th>
<th>Clinical Description</th>
<th>Treatment Option</th>
<th>Treatment Option</th>
<th>Treatment Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cure</td>
<td>HDV RNA Negativity + ALT Normalization</td>
<td>Lonafarnib + Ritonavir</td>
<td>Lonafarnib + Ritonavir + Lambda</td>
<td>Lambda</td>
</tr>
<tr>
<td>Chronic Treatment</td>
<td>HDV RNA Reduction + ALT Normalization</td>
<td>Lonafarnib + Ritonavir</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indication</td>
<td>Drug Candidate</td>
<td>Phase 1</td>
<td>Phase 2</td>
<td>Phase 3</td>
</tr>
<tr>
<td>------------</td>
<td>----------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Hypoglycemia</td>
<td>Exendin (9-39)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hyperinsulinemic Hypoglycemia
Debilitating and Potentially Life-threatening Condition

- Complication from bariatric surgery; increasing worldwide
  - 200,000 bariatric surgeries in the US in 2014 and growing*

- Post prandial hyperinsulinemia and hypoglycemia
  - Neuroglycopenia – seizures, loss of consciousness, and even death
  - Disability – impaired ability to work, drive, perform daily activities

- Impacts 5-10% of Roux-en-Y patients: Orphan Disease

- No approved therapy with high unmet medical need

- Clinical data and results with Exendin (9-39) in 18 patients
  - Intravenous and Subcutaneous forms of Exendin (9-39)

* Angrisani et al., Obes Surg, 2015
Exendin (9-39) is a GLP-1 Antagonist

- 31 AA fragment of exenatide, a GLP-1 agonist
- Decreases insulin secretion
**Exendin (9-39)**

**Phase 2: IV Infusion Study**

<table>
<thead>
<tr>
<th>SCREENING RANDOMIZATION</th>
<th>DAY 1 OGTT</th>
<th>WASHOUT 24HR-7DAY</th>
<th>DAY 2 OGTT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled N=8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Inclusion Criteria:**
1) Whipple’s triad
   - Hypoglycemic sx post-prandially
   - Plasma glucose <50 mg/dL
   - Resolution w/ CHO intake
2) Documented hyperinsulinemia (>2 uU/mL)

**Endpoints:**
1°: Hypoglycemia: Plasma glucose <50 mg/dL
2°: Rate of glucose decline
3°: Composite symptom score
Ancillary measures: Insulin, GLP-1, GIP, glucagon, Ex (9-39)
**Exendin (9-39) IV Infusion Study Results**

*Exendin (9-39) Reduces Hyperinsulinemic Hypoglycemia*

- **Exendin (9-39) IV Infusion Study Results**
- **Exendin (9-39) Reduces Hyperinsulinemic Hypoglycemia**

Glucose fall resembles normal glycemic response

No Exendin (9-39) patient required rescue

Every placebo patient required rescue with IV dextrose
Exendin (9-39)
MAD Study Currently Dosing Patients

2015

- IV Infusion Study
  - N=10
  - Manuscript Submitted

- SC Injection SAD Study
  - N=8
  - IND for SC Formulation by Stanford
  - Oral Presentation June 10th

2016

- SC Injection MAD Study
  - N=16
  - IND

IND Enabling Studies
Pre IND Meeting Orphan Application
Pulmonary Arterial Hypertension
PAH

<table>
<thead>
<tr>
<th>Indication</th>
<th>Drug Candidate</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulmonary Arterial Hypertension</td>
<td>Bestatin™ (ubenimex)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pulmonary Arterial Hypertension
Targeted LTB$_4$ Rx Reverses PAH

• **PAH is a $4 Billion+ Orphan Disease market**
  - Approved agents for PAH are all Vasodilators (Palliative)

• **Inflammation now recognized as major component in PAH**
  - LTB$_4$ identified as an inflammatory mediator in PAH

• **LTB$_4$ is elevated in PAH animals and human PAH disease**
  – Targeted inhibition of LTB$_4$ reverses PAH in animal models

• **Bestatin® (ubenimex) is a targeted inhibitor of LTA$_4$H**
  - Approved in Japan for a different indication; well characterized

• **Potential for PAH Disease Modification**

• **Phase 2 LIBERTY Study enrolling**

Bestatin™ (ubenimex)  
Partner: Nippon Kayaku, Japan

• Oral, small molecule, marketed in Japan since 1987
• Indicated for non-lymphocytic leukemia
• LTA$_4$H inhibitor, aminopeptidase inhibitor
• Well-characterized, safe and well-tolerated
• Never introduced in the US or EU – NCE
• Orphan Designation in PAH in US and EU
• US Patent Allowance for Claims in PAH
Lymphedema

Indication

Drug Candidate

Phase 1

Phase 2

Phase 3

Lymphedema

Bestatin™ (ubenimex)
Lymphedema
A Disabling Disorder with Significant Impact on Quality of Life

No Approved Rx Therapy

• Lymphedema is a state of vascular insufficiency
  - Decreased clearance of interstitial fluid through lymphatics
  - Debilitating architectural alterations in skin & supporting tissues

• Primary Lymphedema – hereditary (Orphan)

• Secondary Lymphedema – due to a causative event

• Elevated $\text{LTB}_4$ in animal models and human lymphedema

• Inhibition of $\text{LTB}_4$ in lymphedema animal models*

• Phase 2 ULTRA Study enrolling

* Rockson et al Provisional Patent Filing: $\text{LTB}_4$ inhibition to prevent and treat lymphedema; 2015
Clinical Data News Flow
Phase 2 Results Across All Programs

2016

Sarasar®: LOWR HDV – 2 Interim Data ✅
Exendin (9-39): SC SAD Study ⭐
Exendin (9-39): SC MAD Study ⭐
Sarasar®: LOWR HDV – 2 EOT Data ⭐
Sarasar®: LOWR HDV - 3 EOT Data ⭐
Sarasar®: LOWR HDV - 4 EOT Data ⭐

2017

Bestatin™: Lymphedema ULTRA Study ⭐
Bestatin™: PAH LIBERTY Study ⭐
PEG IFN Lambda: Mono HDV Study ⭐
Experienced Management

David Cory, RPh, MBA
President and CEO

Jim Welch, MBA
Chief Financial Officer

Joanne Quan, MD
Chief Medical Officer

Eduardo Martins, MD, PhD
Senior Vice President, Liver & Infectious Diseases

Jim Shaffer, MBA
Chief Business Officer

Shelly Xiong, PhD, RAC
Vice President, Regulatory Affairs
<table>
<thead>
<tr>
<th>Indication</th>
<th>Faculty / Inventors / Advisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis Delta</td>
<td>Jeffrey Glenn, MD, PhD</td>
</tr>
<tr>
<td>Hypoglycemia</td>
<td>Tracey McLaughlin, MD, MPH</td>
</tr>
<tr>
<td>Pulmonary Arterial Hypertension</td>
<td>Mark Nicolls, MD</td>
</tr>
<tr>
<td>Lymphedema</td>
<td>Stanley Rockson, MD</td>
</tr>
</tbody>
</table>
An Orphan Disease Company by Design