Certain statements made in this presentation are forward-looking. Such statements are indicated by words such as “expect,” “should,” “anticipate” and similar words indicating uncertainty in facts and figures. Although Lev Pharmaceuticals, Inc. believes that the expectations reflected in such forward-looking statements are reasonable, it can give no assurance that such expectations reflected in such forward-looking statements will prove to be correct.

As discussed in its Form 10-KSB for the year ended December 31, 2007 as filed with the Securities and Exchange Commission, actual results could differ materially from those projected in the forward-looking statements as a result of the following factors, among others: uncertainties associated with product development, the risk that Lev Pharmaceuticals will not obtain approval to market its products, the risk that Lev Pharmaceuticals' products will not gain market acceptance, the risks associated with dependence upon key personnel and the need for additional financing.
Why Lev?

- **Preparing for launch of Cinryze™ (C1 inhibitor)**
  - C1 inhibitor used for 35+ years in Europe to treat hereditary angioedema
  - replacement therapy for protein deficiency
  - BPAC panel vote unanimous for approval of Cinryze for prophylaxis of HAE
  - complete response accepted for review by FDA; Oct. 14, 2008 action date targeted

- **Large market opportunity in HAE**
  - developing both acute and prophylactic therapy
  - only player in prophylactic space in U.S.
  - 7-years market exclusivity upon approval (Orphan Drug Status)

- **Strong pipeline**
  - subcutaneous delivery of Cinryze™
  - recombinant C1 inhibitor
  - other plasma proteins (IVIG)
  - additional indications for Cinryze™
    - heart disease (MI), reperfusion injury
Agenda – The Lev Story

Leveraging clinical experience

Executing plan to launch lead product

Vision – where we are headed
The First Indication We are Targeting: HAE

- **HAE is a life-threatening and debilitating genetic disorder**
  - caused by a deficiency of C1 inhibitor protein
  - attacks last 2–3 days, on average, occur once per month
    - severely affected patients may have 2-3 attacks per week
  - associated with 15-33% mortality if left untreated

- **U.S. patient population: ~10,000**
  - approximately 4,000 patients diagnosed

- **Current treatments are inadequate and carry serious side effects**
  - anabolic steroids

- **C1 inhibitor to be marketed as Cinryze™**
  - replacement therapy for C1 inhibitor deficiency
Clinical Presentation of HAE

<table>
<thead>
<tr>
<th>Location</th>
<th>Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laryngeal</td>
<td>May lead to death from asphyxiation</td>
</tr>
<tr>
<td></td>
<td>Often require intubation and tracheotomy</td>
</tr>
<tr>
<td>Abdominal</td>
<td>Associated with severe pain, intestinal obstruction, nausea, vomiting, and dehydration</td>
</tr>
<tr>
<td></td>
<td>Lead to hospitalizations and unnecessary surgeries</td>
</tr>
<tr>
<td>Urogenital</td>
<td>Result commonly from intercourse and/or childbirth</td>
</tr>
<tr>
<td></td>
<td>Associated with painful urination and swollen genitalia</td>
</tr>
<tr>
<td>Facial</td>
<td>Most often affect lips, eyelids, and tongue</td>
</tr>
<tr>
<td></td>
<td>Swelling may migrate or extend to the upper airways</td>
</tr>
<tr>
<td>Extremity</td>
<td>Most common sites affected</td>
</tr>
<tr>
<td></td>
<td>Swelling of hands and feet are functionally disabling</td>
</tr>
</tbody>
</table>
HAE: Example of Facial Swelling

...Leading to a laryngeal attack
What is C1 inhibitor?

A Human Plasma Protein... ... that mediates inflammation

• Key regulator of three biochemical pathways:
  - contact
  - complement
  - fibrinolysis

• C1 inhibitor deficiency can cause:
  - disfiguring swelling
  - debilitating pain
  - asphyxiation & death
C1 INH is a Replacement Therapy for HAE

- HAE is caused by a deficiency in or dysfunctional C1 INH
- C1 INH works on 3 major pathways that mediate inflammation
- Infection, trauma, stress, etc. further depletes C1 INH
- Cinryze™ replaces C1 INH to treat and prevent HAE attacks
In the U.S.
Current Treatments are Unsatisfactory

**Acute treatment**

- **Europe**
  - C1 INH

- **U.S.**
  - Supportive therapy only
  - Extremities – no treatment
  - GI tract – antiemetics, morphine
  - Larynx – intubation, tracheotomy

**Prophylactic treatment**

- **Europe**
  - C1 INH
  - Anabolic steroids

- **U.S.**
  - Anabolic steroids
    - Side effects of steroid use include liver toxicity, lipid abnormalities, carcinogenicity and virilization
Leveraging 35+ Years of Experience

Bringing 35+ years of safety, efficacy in Europe... … to North America

- C1 INH: standard of care
- Significant unmet need
- Multi-hundred million dollar revenue opportunity
## C1 INH Has Distinct Advantages

<table>
<thead>
<tr>
<th>Feature</th>
<th>Other Products in Development</th>
<th>C1 INH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful history of self administration</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Offers complete care – acute and prophylactic</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Long history of safety and efficacy</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Replacement therapy – addresses underlying protein deficiency (not just symptoms)</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Agenda – The Lev Story

Leveraging clinical experience

Executing plan to launch lead product

Vision – where we are headed
Cinryze™: Moving Toward Commercialization

2003
- Company founded

2005
- Initiated 2-part pivotal trial
  - acute
  - prophylactic
- Fast track status

2007
- Acute Phase III trial
  - met primary endpoint
  - BLA accepted/priority review granted – September 2007
- Prophylactic Phase III trial
  - met primary endpoint
  - BLA amendment submitted Oct. 2007

2004
- IND Filed
- Orphan Drug Designation

2006
- Completed Acute Phase III trial

2008
- BPAC panel vote unanimous for approval of Cinryze ™ prophylaxis
- Complete Response accepted for review by FDA; Oct. 14th action date targeted
A Closer Look at Phase III Trial
Results from Cinryze™ Acute Study

**Trial Design**
- Randomized, double-blind, placebo-controlled
- 20 sites in U.S., 71 patients
- Subjects rescued with open-label Cinryze™ at 4 hours
  - 4 hours = maximum evaluation period

**Trial Results**
- Met primary endpoint: median time to unequivocal symptom relief
  - 2 hours for Cinryze™ v. >4 hours for placebo
  - statistical significance: P=0.026
  - success ratio: 2.248
- 18 of 18 laryngeal attacks successfully treated open label
- Adverse event profile no different from placebo
  - no immunogenicity
  - no SAEs
- Supports 35+ years of safety and efficacy in Europe
A Closer Look at Phase III Trial
Results from Cinryze™ Prophylactic Study

**Trial Design**
- Randomized, double-blind, placebo-controlled, multi-center study
- **24 subjects treated twice weekly**
  - history of at least 2 attacks per month to qualify
  - crossover design: 12 weeks of treatment in each arm for a total of 24 weeks

**Trial Results**
- **Met primary endpoint: reduction in the number of HAE attacks**
  - 52% reduction in total number of attacks in Cinryze™ group (P<0.0001)
  - subjects in placebo arm received significantly more open-label Cinryze™

- **Met secondary endpoints with statistical significance**
  - 66% reduction in days of swelling (P<0.0001)
  - decreases in average duration (P=0.0004) and severity (P=0.0008) of attacks
  - 19-22 patients (86%) showed improvement in Cinryze™ arm
  - 11-22 patients (50%) had no swelling or minor swelling
    - did not seek open-label Cinryze™

- **Over 6,000 doses of Cinryze™ administered to date**
  - no immunogenicity
  - no SAEs
Leveraging Clinical Experience

HAE: Targeted Launch Strategy

1. Marketing
   - Positioning Cinryze™ as standard of care for HAE
   - Increase brand awareness

2. MSL’s
   - Deployed in field and building relationships w/Key Opinion Leaders

3. Sales Force
   - 8-12 account reps to target key allergists and immunologists

4. Distribution
   - Specialty pharmacy model allows for rapid product adoption
   - Access for all patients

5. Reimbursement
   - Low per member per month cost
   - Private payers = 75% of mix

Commercial Team Poised to Complete Launch Preparations
• **~4,000 patients in the U.S. are diagnosed with HAE**
  – Market research indicates ~50% are geared toward prophylaxis

• **800+ allergists with ~4,000 HAE patients under care**
  – 175 docs manage 70% of patients
  – ~1,500 – 2,000 patients are currently taking Danazol

• **Select number of hospitals will stock Cinryze™**
  – HAE patients pool together in certain geographic regions

• **Only 34% of family members have been tested for HAE**
  – Represents significant growth opportunity

• **75% of HAE patients have commercial insurance**
  – Top 43 U.S. insurance plans manage 90% of commercial patients
  – Lev is working to ensure that all patients have access to Cinryze™
Diagnosed Patient Population

Significant HAE Market Opportunity

- **U.S. HAE population**: 4,000
  - **Acute market**
    - 2,500
    - **Treatments per year** (6 per year)
      - 15,000
  - **Prophylaxis market**
    - 1,500
    - **Treatments per year** (1.5 per week)
      - 117,000

- **Multi-hundred million dollar market opportunity**

- **Pricing comparable to other orphan drugs**
### Focus: Market Research
Understanding The Orphan Drug Landscape

<table>
<thead>
<tr>
<th>Company</th>
<th>Brand Name</th>
<th>~Annual $</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genzyme</td>
<td>Cerezyme®</td>
<td>$250K</td>
<td>Gaucher’s disease</td>
</tr>
<tr>
<td>Genzyme</td>
<td>Fabrazyme®</td>
<td>$250K</td>
<td>Fabry disease</td>
</tr>
<tr>
<td>Genzyme</td>
<td>Myozyme®</td>
<td>$280K</td>
<td>Mucopolysaccharidoses (MPS)</td>
</tr>
<tr>
<td>Biomarin/ Genzyme</td>
<td>Aldurazyme®</td>
<td>$370K</td>
<td>Hurler syndrome (MPS)</td>
</tr>
<tr>
<td>Shire</td>
<td>Elaprase™</td>
<td>$375K</td>
<td>Hunter syndrome (MPS II)</td>
</tr>
<tr>
<td>Alexion</td>
<td>Soliris™</td>
<td>$400K</td>
<td>Paroxysmal Nocturnal Hemoglobinuria (PNH)</td>
</tr>
</tbody>
</table>

Annual costs are approximate and may vary depending on dosing.
Lev’s First Dose Program Provides a Solid Revenue Base at Launch

- **72 Open-Label Prophylactic Patients**
  - growing to 100+ at launch

- **26 Cetor Patients (Prophylaxis)**
  - currently self-administering

- **67 Open-Label Acute Patients**
Estimated Total Patient Population

Significant HAE Market Opportunity

U.S. HAE population
10,000

Acute market
7,500
Treatments per year (6 per year)
45,000

Prophylaxis market
2,500
Treatments per year (1.5 per week)
195,000

Multi-hundred million dollar market opportunity

Pricing comparable to other orphan drugs
Key Agreement with European Supplier

- **Sanquin Blood Supply Foundation**
  - not-for-profit organization
  - offers broad range of plasma products and services

- **35+ years experience manufacturing C1 INH**
  - lyophilized powder – stable at room temperature
  - marketed as “Cetor” in Europe

- **Lev has exclusive rights to C1 inhibitor in North America and certain other regions**
  - no royalties due on sales of C1 inhibitor
  - next generation product to be marketed as Cinryze™
    - nano-filtration
Agenda – The Lev Story

Leveraging clinical experience

Executing plan to launch lead product

Vision – where we are headed
Focused Business Strategy

1. Initial focus on HAE
   - first to market
   - acute and prophylactic therapy

2. Growth through product development
   - subcutaneous formulation
   - other plasma products (IVIG)
   - recombinant C1 inhibitor

3. Additional indications for Cinryze™
   - Internal development
   - Partnership opportunities
     - heart disease (MI), reperfusion injury
Leveraging Clinical Experience

A Closer Look

Cardiovascular Disease: C1 INH Opportunity

• Late stages of cardiac cell injury in acute myocardial infarction (MI) caused by inflammation
  – insufficient blood flow, lack of oxygen
  – 865,000 MI patients in U.S. annually (2003)
    • 171,000 deaths

• Contact and complement pathways involved

• Strong pre-clinical and preliminary clinical data

• U.S. patent (2000) for C1 INH in acute MI

• Partnership opportunity
A Closer Look
Positive MI Data – European Clinical Study

- 31 patient study comparing standard of care (SOC) to SOC plus C1 INH

- Demonstrated reduction of key biochemical markers for cardiac damage

**Reduction in Cardiac Damage**

<table>
<thead>
<tr>
<th>Marker</th>
<th>SOC</th>
<th>C1 INH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troponin T (TnT)</td>
<td>40+%</td>
<td></td>
</tr>
<tr>
<td>Creatine Kinase-Myocardial Band (CKMB)</td>
<td>60+%</td>
<td></td>
</tr>
</tbody>
</table>

*Source: European Heart Journal 2002*
A Closer Look
Reperfusion Injury

- **C1 inhibitor works at earliest points along all arms of the complement cascade**

- **C1 inhibition is multi-pathway (Complement, Contact, Fibrinolytic)**

- **On-pump cardiopulmonary bypass surgery is associated with:**
  - 30-50% reduction in C1 inhibitor levels
  - Transient C1 inhibitor deficiency leading to endothelial damage, vasoconstriction, cell injury and death

---

**C1 INH in CABG for Acute MI**

**Significant Reduction in:**
- Pump time (32%)
- Time of intubation (46%)
- ICU stay (60%)
- In-patient stay (58%)
- Troponin T (~50%)

*Source: European Journal Fattouch et al 2007*

---

**Conclusion:** C1 inhibitor therapy reduces inflammation and improves clinical outcomes
### Indication

<table>
<thead>
<tr>
<th>Indication</th>
<th>Patients/ model</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac surgery</td>
<td>3 patients</td>
<td>Hemodynamic stabilization, improved contractility</td>
</tr>
<tr>
<td>Septicemia</td>
<td>11 patients</td>
<td>No death, no side effects</td>
</tr>
<tr>
<td>Vascular leak syndrome (VSL)-bone marrow transplantation</td>
<td>15 patients</td>
<td>Improved survival</td>
</tr>
<tr>
<td>VSL- IL-2 therapy</td>
<td>6 patients</td>
<td>Increased IL-2 tolerance</td>
</tr>
<tr>
<td>Burn injury/septicemia</td>
<td>16 patients</td>
<td>Trend to lower mortality</td>
</tr>
<tr>
<td>Pancreatitis</td>
<td>rats, pigs</td>
<td>Reduced mortality</td>
</tr>
<tr>
<td>Pulmonary dysfunction</td>
<td>dogs</td>
<td>Prevention of hypoxemia</td>
</tr>
<tr>
<td>Lung transplantation</td>
<td>dogs</td>
<td>Prevention of early pulmonary dysfunction</td>
</tr>
<tr>
<td>Trauma</td>
<td>rats</td>
<td>Reduced mortality</td>
</tr>
</tbody>
</table>
Experienced Management Team

- **Judson Cooper** - Founder and Chairman
  - Founder DepoMed, SIGA Technologies, Callisto Pharmaceuticals

- **Joshua D. Schein, Ph.D.** - Founder and Chief Executive Officer
  - Founder DepoMed, SIGA Technologies, Callisto Pharmaceuticals

- **Matt Duffy** - Senior Vice President, Commercial Operations
  - BDR Research Group, MedImmune, Pfizer

- **Jason Bablak** - Vice President, Regulatory Affairs and Product Development
  - Immune Deficiency Foundation, Plasma Protein Therapeutics Assoc.

- **Bart Jones** - Vice President, Sales
  - Cubist, Guilford, MedImmune, Genentech, Immunex

- **Ira N. Kalfus, M.D.** - Vice President, Medical Affairs
  - Aetna, GHI, North Shore LIJ Health System

- **Joseph Truitt** - Vice President, Business Development and Product Strategy
  - OraPharma, Inc., a Johnson & Johnson company

Solid track record in all key areas

- Financing
- Marketing
- Operations
- R&D
- Regulatory
- Sales
Our goal is to develop and commercialize a portfolio of C1 INH products that offer improved efficacy and safety over existing treatments.

Founded 2003
- 27 employees

OTCBB: LEVP
- Market cap ~$250M\(^{(1)}\)
- Shares outstanding 142.5M\(^{(1)}\)
- Fully diluted shares outstanding 174.4M\(^{(1)}\)

Raised ~$70 million since inception
- Raised gross proceeds of $35 million in August ’07 registered direct

~$13.2 million in cash as of Q1’08

Note (1) As of 5/2/08
Why Lev?

- **Preparing for launch of Cinryze™ (C1 inhibitor)**
  - C1 inhibitor used for 35+ years in Europe to treat hereditary angioedema
  - replacement therapy for protein deficiency
  - BPAC panel vote unanimous for approval of Cinryze for prophylaxis of HAE
  - complete response accepted for review by FDA; Oct. 14, 2008 action date targeted

- **Large market opportunity in HAE**
  - developing both acute and prophylactic therapy
  - only player in prophylactic space in U.S.
  - 7-years market exclusivity upon approval (Orphan Drug Status)

- **Strong pipeline**
  - subcutaneous delivery of Cinryze™
  - recombinant C1 inhibitor
  - other plasma proteins (IVIG)
  - additional indications for Cinryze™
    - heart disease (MI), reperfusion injury