Nearly 20 years of experience
Conveniently located in the heart of Silicon Valley, amidst many biotech companies
State of the art, purpose-built facility
Approximately 30 employees
Highly experienced staff
GLP, OECD, FDA, USDA, OLAW
AAALAC Accreditation
Murine Fibrosis Models

• Sclerotic Skin (Scleroderma)
  - Local Repeated Injection of Bleomycin

• Pulmonary Fibrosis
  - Continuous SC Infusion of Bleomycin by Osmotic Pump
Sclerotic Skin Model

Study Parameters and Sample Data
Sclerotic Skin Model: Typical Parameters

- C3H females at 7 weeks of age
- Local SC injection of bleomycin daily for 30 days
- Test article administration per sponsor
- Clinical observation daily
- Weekly body weights
- Necropsy and histopathology
Sclerotic Skin Model: Sample Data

Body Weights (C3H/HeOuJ)

- **Vehicle**
- **0.01 U Bleomycin**
- **0.1 U Bleomycin**
- **0.3 U Bleomycin**

Day on Bleomycin
Sclerotic Skin Model: Sample Data

Dermal Fibrosis (C3H/HeJ)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Histopathologic Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>vehicle</td>
<td>0.0</td>
</tr>
<tr>
<td>0.01 U Bleomycin</td>
<td>1.0</td>
</tr>
<tr>
<td>0.1 U Bleomycin</td>
<td>4.0</td>
</tr>
<tr>
<td>0.3 U Bleomycin</td>
<td>4.5</td>
</tr>
</tbody>
</table>
Sclerotic Skin Model: Sample Data

Dermal Fibrosis

Histopathologic Score

- 0.0
- 1.0
- 2.0
- 3.0
- 4.0
- 5.0

4 weeks

6 weeks

- vehicle
- 20 U/kg Bleomycin
- 100 U/kg Bleomycin
- 150 U/kg Bleomycin
Sclerotic Skin Model: Histopathology

Left: Trichrome of normal mouse skin, demonstrating low amount of collagen in superficial dermis (blue)

Bottom: Bleomycin-treated mouse skin demonstrating large amount of collagen deposition and fibrosis in superficial and deep dermis (blue)
Pulmonary Fibrosis Model

Study Parameters and Sample Data
Pulmonary Fibrosis: Typical Parameters

- C57BL/6 females at 7 weeks of age
- Surgical implantation of osmotic pump with 7 day constant infusion of bleomycin
- Clinical observation daily
- Body weights weekly
- Necropsy and histopathology
Pulmonary Fibrosis: Sample Data

Pulmonary Fibrosis and Inflammation (C3H/HeJ)

Histopathologic Score

- Vehicle
- 0.01 U Bleomycin
- 0.1 U Bleomycin
- 0.3 U Bleomycin
Pulmonary Fibrosis: Sample Data

Pulmonary Fibrosis and Inflammation (C3H/HeOuJ)

Histopathologic Score

- Vehicle
- 0.01 U Bleomycin
- 0.1 U Bleomycin
- 0.3 U Bleomycin
Pulmonary Fibrosis: Sample Data

Body Weights in Bleomycin-treated Mice

- **Vehicle**
- **20 U/kg Bleomycin**
- **100 U/kg Bleomycin**
- **150 U/kg Bleomycin**

**X-axis:** Day on study
**Y-axis:** Body Weight (g)
Pulmonary Fibrosis: Sample Data

Pulmonary Fibrosis and Inflammation

Histopathologic Score

- Vehicle
- 20 U/kg Bleomycin
- 100 U/kg Bleomycin
- 150 U/kg Bleomycin

4 weeks
6 weeks
Pulmonary Fibrosis: Histopathology

Left: Trichrome of normal mouse lung, demonstrating little or no collagen (blue)

Bottom: Bleomycin-treated mouse lung demonstrating large amounts of collagen deposition and fibrosis in pulmonary parenchyma and around airways
Service and Quality

• **Thoroughness in planning and execution is key to a successful study.** All protocols are vetted and approved by multiple personnel. Our QAU has a rigorous training program. All non-GLP studies are conducted in the spirit of GLP.

• **We believe in sound science.** Our ratio of scientists to non-scientists is one of the highest in the industry. Every study director is a PhD-level scientist.

• **We believe in communication.** Timely responses to your inquiries and frequent updates on your study are mandatory.

• **We welcome visitors.** You are always welcome at CBI to meet the staff, tour the laboratory and discuss the progress and results of your study.