Metabolic Disease

The BioDuro Advantage

BioDuro’s pharmacology team has extensive drug discovery and development experience in the pharmaceutical industry enabling us to support fully integrated programs, including study design and data interpretation. Special expertise in metabolic diseases is coupled with a commitment to working with clients to develop customized models for rare diseases.

Our team has successfully collaborated with 9 of the top 20 large pharmaceutical companies and numerous small companies. The success of these collaborations is highlighted by the quality data provided that have informed key project decisions and regulatory filings. Beyond providing analysis, our senior team’s expertise allows for the development of a consulting relationship with client partners.

The Pharmacology Team

- Group leader-level scientists with strong backgrounds and training in autoimmune and inflammatory diseases
- A team of 20 well-trained bench scientists focused on in vitro and in vivo drug discovery services. They are skilled in different animal models/assays and excel in problem-solving and trouble-shooting
- Dedicated, collaborative project management
- Integrated discovery programs

In pursuit of your success.
## Animal Models for Different T2DM Stages

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<th>Later-phase Diabetes</th>
<th>Diabetes Complications</th>
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<td>HFD + STZ rats/mice</td>
<td>Rodent myocardial ischemi</td>
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<td>OGTT (and other GTTs), ITT, GCG challenge, etc.</td>
<td>Hyperglycemia clamp</td>
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<td>Primary rodent pancreas islet GSIS</td>
<td>Hyperinsulinemia clamp</td>
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<td>Dyslipidemia in ApoE KO mice</td>
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### Animal Models

- **High fat diet induced obese (DIO) rats/mice**
- **ob/ob and db/db mice**
- **Streptozotocin (STZ) induced type 1 diabetic rats/mice**
- **GK (Goto-Kakizaki) rats**
- **ApoE KO mice**
- **KKAY mice with NASH, retinopathy, nephropathy**
- **High fat diet (HFD) + STZ induced type 2 diabetic rats/mice**
- **Myocardial infarction and reperfusion injury in rats/mice**
- **Renal ischemia and reperfusion injury in rats/mice**

### Ex-Vivo, Biochemistry, and Histology Assays

- **Primary rodent pancreas islets isolation/insulin secretion**
- **Pancreatic β-cell and α-cell counting by HE and IHC**
- **Tissues/organs histology**
- **Plasma/serum lipid assays:**
  - TG, CHO, LDL/HDL profile, NEFA

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