Sinclair Preclinical Services

Efficacy Research
- Diabetes
- Obesity
- Osteoporosis
- Orthopedic
- Ophthalmic
- Nutrition
- Transdermal Drug Delivery
- Reproduction
- Pediatrics
- Transgenics
- Transplantation
- Osteoinduction

Pharmacology Research
- Range of Species:
  - Rodents
  - Rabbits
  - Canine, Large Resident Colony
  - Miniature Swine
  - Largest Producer
  - Several Lineages
  - Other Species: Cats, Sheep, Goats, Horses, Poultry
- Pharmacokinetics/Bioavailability
- Various delivery routes in all animal species including transdermal delivery in miniature swine
- Pharmacodynamics
- Metabolism, Tissue Disposition, Biodistribution
- Special Surgical Modeling:
  - Access Ports:
    - Multiple Venous and Arterial Accesses
    - Gastro-Intestinal Access
- Experience with a variety of test articles, including small molecules, proteins and peptides, and antineoplastics
- Radio labeled and non-radio labeled test articles

Safety Research
- General Toxicology
- Toxicokinetics
- Conventional routes of administration:
  - Oral
  - Intravenous - bolus and infusion
  - Intraperitoneal
  - Intramuscular
  - Subcutaneous
  - Transdermal, dermal
- Acute to Chronic Toxicity Studies
- Dermal Irritation
- Target Animal Safety
- Ocular Toxicology
- Biocompatibility (ISO10993)

Surgical Services and Special Capabilities
- Modeling
  - Surgical Model Preparation
  - Cardiovascular
  - Coronary and Peripheral Stents
  - Medical Device
  - Orthopedics
  - Wound Healing
  - Experimental Surgery
- Four Surgical Suites
- Fluoroscopy
- Cardio-Ecography, EKG
- Color-Doppler Ultrasonography
- Body Composition
- Bone Density
- MRI and CT Imaging

Sinclair specializes in comprehensive in-vivo support services, from acute to chronic research projects at competitive prices. We excel at developing collaborative teams for complex large-animal projects.

Short-acting and Long-acting Buprenorphine Therapeutic Drug Levels Following Single Subcutaneous Administration in Diabetic Yucatan Miniswine

Hanks BC¹, Schlink S¹, Brown LD¹, Luna M², Liu YS², Liu J¹, Stricker-Krongrad A¹, Bouchard GF¹.

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Short-acting and Long-acting Buprenorphine Therapeutic Drug Levels Following Single Subcutaneous Administration in Diabetic Yucatan Miniswine

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RESULTS (CONTINUED)

RESULTS

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CONCLUSION

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Table 3. Buprenorphine PK Parameters in Yucatan Miniswine: Group Mean Data (N=4)

Table 1. High vs. Low Dose SA Buprenorphine Dosed Subcutaneously in db Yucatan: Group Plasma Means (pg/mL) Over Time (N=4)

Table 2. High vs. Low Dose Buprenorphine SR Dosed Subcutaneously in db Yucatan: Group Plasma Means (pg/mL) Over Time (N=4)

REFERENCES

2. http://www.snvet.net/index.php/other/buprenorphine-sr-