



GREENTECH BIOSCIENCE CO., LTD.



Your **Expert Partner**
for Preclinical **Drug Discovery**&Development !



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○ About GREENTECH

Greentech Bioscience Co., Ltd., founded in 2014, is a preclinical Contract Research Organization (CRO) located in Sichuan Province of China, the hometown of giant pandas. Greentech is specialized in offering comprehensive preclinical solutions for a range of industries around the world, including pharmacological studies in rodents and large animals such as pigs, dogs, and non-human primates, *in vitro* compound screening, ADME/PK, toxicology (non-GLP), and medical device effectiveness testing. With a beautiful environment, complete facilities and accommodation availability, Greentech is an ideal place for you to conduct research independently or on commission.



■ Why Is GREENTECH?

...> Professional technical team

More than 80% of our highly qualified study directors and technicians have a master's degree or above in pharmacology, pharmacy or biology.

...> Enthusiastic and focused team

At present, our technical team has a total number of more than 100 people, which is an enthusiastic, focused team with good communication and teamwork.

...> Good customer experience

Dedicated to providing consistently good customer experiences during project negotiation and implementation process.

...> Advanced animal & research facilities

Greentech Bioscience has built AAALAC international accredited animal facilities and multiple well-equipped laboratories, covering an area of more than 108,000ft².

...> Extensive CRO service experience

We have served hundreds of domestic/foreign customers with over 1,000 preclinical studies, and facilitated about dozens of NMPA/FDA IND approvals.

...> Comprehensive preclinical expertise

From druggability evaluation to IND-enabling studies, covering PK/PD, non-GLP toxicology, drug screening, and pharmacology.



■ DMPK & Non-GLP Toxicology

In Vitro DMPK

- Plasma protein binding
- Drug-permeability and transporter assays
- In vitro metabolism and DDI studies
- Microsomal stability
- Screening and identification of the main metabolites

In Vivo DMPK

- Bioanalytical method development/validation (LC/MS/MS - small molecules, peptides; ELISA - biomolecules)
- Absorption (single, repeated dose)
- Tissue distribution
- Excretion and mass - balance
- Biotransformation
- PK parameters: C_{max}, T_{max}, t_{1/2}, AUC, CL, V_d, MRT, F, etc.
- Biomarkers: epinephrine, norepinephrine, dopamine, serotonin, etc.

Non-GLP Toxicology

- Rats/rabbits/dogs/pigs/non-human primates, etc.
- Non-GLP Toxicity: single, repeated dose toxicity

■ Compound Screening

- Kinase assays (HTS): tyrosine kinases, serine/ threonine kinases, etc.
- Multiple detection mode(BMGPHERASTAR FSX): FRET/TRFRET/FI/FP/luminescence/absorbance
- Cell-based assay: cell proliferation/apoptosis/migration/adhesion assays, cytotoxicity, ROS assays, tube formation, hypoxic injury model, etc.
- Western Blot, qPCR, FACS, etc.



Our Capabilities

In Vivo Efficacy Testing

Cardio-cerebrovascular Diseases

- Ischemic stroke: Intraluminal suture MCAO model (transient/permanent)
- Photothrombosis model, Endovascular coil occlusion of MCA*
- Arrhythmia: Adrenaline-induced model
- Pulmonary arterial hypertension: monocrotaline (MCT) induced model*
- Hypertension: SHR, Dahl salt-sensitive, 2-Kidney 1-Clip*
Myocardial infarction & heart failure: LAD ligation*, Endovascular balloon/sponge occlusion of LAD*, TAC/AAC, Genetic model (DSS rats), Adriamycin or Isoproterenol-induced model, Tachypacing induced heart failure*
- Thrombosis: platelet aggregation test (ADP/collagen/ristocetin), FeCl₃, rose bengal + light, electrolytic induction, arteriovenous shunt

Neurological Diseases

- Hypoxic ischemic encephalopathy (HIE): Surgery + hypoxia/hypoxia in neonatal rats
- Traumatic brain injury & spinal cord injury: Controlled cortical impact (CCI)
- Parkinson's disease (PD): MPTP* or 6-OHDA induced model, Transgenic such as PDGF-SNCA (A53T), Prnp-SNCA(A53T) or Thy1SNCA mice
- Alzheimer's Disease (AD): APP/PS1, 5xFAD, SAM8 mice, Scopolamine-induced models
- Anxiety/depression-like behavior: Elevated plus-maze, Light-dark box, Tail-suspension test, Forced swimming test

Oncology

- 200+ human/mouse cancer cell lines
- CDX/Syngeneic models: Orthotopic/subcutaneous xenograft, Metastasis
- Induced models: DEN (liver cancer), AOM/DSS (colorectal cancer)
- Humanized mouse models: hPD-1, hCTLA4, hCD137
- Test articles: CAR-T cell, Vaccine, Antibody, ADC, small molecular compounds, Radiotherapy

Metabolic Diseases

- Diabetes: Type I diabetes (streptozotocin), Type II diabetes (ob/ob, db/db, ZDF); Diabetic foot ulcers (splinted excisional wound model)
- Hyperlipidemia: High-fat diet-induced model, Transgenic models
- Hyperuricemia: Hypoxanthine and oxonic acid potassium-induced model
- NAFLD/NASH: MCD/CDAA, HFD, HFD+CCl₄, HFD+STZ, CCl₄, STAM, Western diet
- Acute Liver Injury & cirrhosis: CCl₄/APAP/D-GaIN/Alcohol induced, PBC (BDL*, ANIT), PSC (DDC, 2-OA/BSA)

Urology Diseases

- Diabetic nephropathy: db/db mice, ZDF rats, Fructose +STZ-induced rats
- Acute kidney injury: Partial aortic ligation
- Chronic kidney injury: 5/6 nephrectomy, hypertensive nephropathy (DSS rats)

Bone, joint and cartilage diseases

- Osteoporosis: OVX
- Osteoarthritis: MIA, MMT
- Meniscal injury: Meniscal tearing

Inflammation & Autoimmune Diseases

- Rheumatoid arthritis: CIA, AIA
- Gout: MSU Air Pouch, Intra-articular (IA) injection of MSU
- Psoriasis: Imiquimod-induced model
- Multiple Sclerosis (MS): PLP139-151 induced EAE in SJL/J mice
- Inflammatory Bowel Disease (IBD): DSS/TNBS/Oxazolone induced model
- Scleroderma: Bleomycin-induced model
- Oral mucositis: X-ray induced mucositis in rats/golden hamster
- General Inflammation: Carrageenan/CFA-induced paw edema, Xylene-induced ear swelling, LPS/CLP-induced sepsis
- Idiopathic pulmonary fibrosis (IPF): Intratracheal injection of bleomycin, Intranasal administration of silica

Pain

- Surgical pain: Rat plantar incision, Pig skin incision
- Models of inflammatory pain: Capsaicin/Formalin/CFA-induced model
- Osteoarthritis pain: CFA/MIA/MMT
- Peripherally induced neuropathic pain models: CCI/PNL/SNI, Paclitaxel/STZ induced model
- Migraine: Nitroglycerin (NTG) induced model, Capsaicin induced dermal blood flow model* (Laser Doppler Monitor for tissue blood flow monitoring)
- Bone cancer induced pain (CIBP): Intraosseous injection of tumor cells into tibia/femur

Efficacy Testing for Medical Devices

- Implantable or interventional products*
- Defibrillators and ablation devices*
- Surgical instruments*

* represents nonhuman primate, canine or pig models are available.

Technical Platform

Vascular Interventional Surgery



Greentech introduced the state-of-the-art GE digital subtraction angiography (DSA) for peripheral, coronary, cerebrovascular, and hepatic artery intervention in large animals, enabling us to establish models of myocardial infarction, stroke, pulmonary embolism, and angiostegnosis. The DSA technique is featured by minimally invasive surgery, causing small trauma and meeting animal welfare requirements. Our vascular interventional models more accurately replicate the human disease states, suitable for evaluating cardio-cerebrovascular drugs. Based on the DSA platform, we also offer efficacy testing of interventions/implants and training on endovascular intervention.

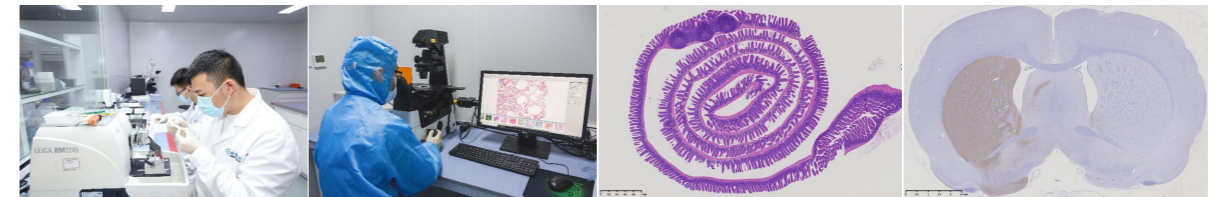
Clinical Pathology

- Complete blood count (CBC), biochemistry, coagulation, urinalysis
- Flow cytometry (lymphocyte immunophenotyping)
- Heart rate, ECG, blood pressure, body temperature
- Ultrasound, blood flow (laser Doppler)



Histopathology

- H&E, Oil Red O, Picrosirius Red, Masson's Trichrome, Safranin O, PAS, Toluidine Blue and other special Stains
- Immunohistochemistry (DAB or fluorescence detection), TUNEL
- High-resolution whole-slide imaging
- Pathology reports reviewed by veterinary pathologist

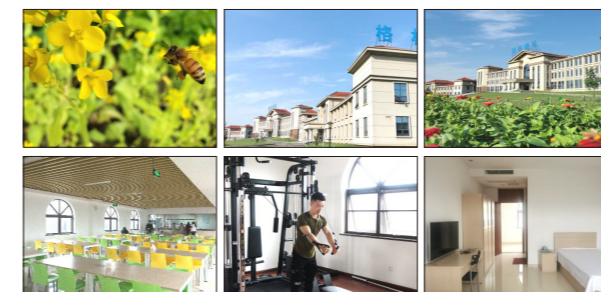


Research Facility & Animal Welfare

Our AAALAC accredited animal facility consists of 18 SPF-level rooms and 29 conventional rooms to house species including mice, hamsters, rats, guinea pigs, rabbits, canines, pigs and non-human primates (NHPs). We attach importance to animal health and welfare, ensuring all animals are well treated and the principles of the 3Rs (Replacement, Reduction, Refinement) are properly implemented. Consequently, more robust and accurate data are produced due to animals at good conditions. The Institutional Animal Care and Use Committee (IACUC) is properly appointed to inspect the implementation of the principles of 3Rs in each study.



Ideal Research Environment



Clients may directly entrust us to carry out preclinical research, or dispatch your technicians to our company and implement on your own. We have a beautiful research environment, with a canteen, accommodation, a fitness room, a sports field and other residential conditions. Greentech is the ideal place for you to conduct preclinical research of drugs or medical device.