YOUR PARTNER FOR
THE PRECLINICAL PHARMACOLOGY OF PAIN
ANS Biotech is an independent preclinical Contract Research Organization (CRO) fully dedicated to the pharmacology of pain. The company offers its clients a unique combination of expertise in the fundamentals of pain pharmacology and a proven record of R&D program management for new and innovative analgesics.

Our mission is to collaboratively support the drug discovery and development efforts of human and animal health companies by offering:

> Unique early screening services to profile your drug candidates,
> Tailored solutions for the management of your research projects,
> A growing list of clinically relevant and predictive disease and efficacy in vivo models of pain,
> Comprehensive consulting services based on an extensive industrial experience.

As a close Pharma and Biotech partner, ANS Biotech commits itself to providing cost-effective preclinical pharmacology services performed to the highest ethical and quality standards. Our validated and customized behavioral studies can help to quantify the efficacy of your compounds before they move into clinic by:

> Establishing proof of concept & mechanism of action for drug candidates,
> Achieving the critically important positioning of these agents within precise therapeutic categories (cancer pain, neuropathic pain, visceral pain, ...),
> Benchmarking drug candidates with clinical gold standards.

We aim to act as an extension of your scientific team wherever you are located around the world, helping you to optimize and accelerate the development of your drug candidates.

Your discoveries are as unique as our services
From the early identification of your *leads* to the characterization of your *candidates*, ANS Biotech supports your R&D efforts by offering a broad range of services from ubiquitous tests to accurate pain models within precise therapeutic categories.

**Therapeutic areas**
- Neurology
- Gastroenterology
- Rheumatology
- Oncology
- Surgery and Anesthesia

**Prerequisites**
- Early Lead Selection
  - Dose range
  - Side effects
  - PK data
  - Drug exposure

**Characterization of Candidates**
- Preclinical Pain Profiling

Your partner for building step by step your preclinical dossier!
At each step of the preclinical R&D of your drug, ANS Biotech offers helpful and relevant services.

Your needs
- Early data
- Candidate selection
- Proof of concept
- Competitive advantage

Our solutions
- Strategy
- Screening
- Pathophysiology
- Diseases
Your partner for building step by step your preclinical dossier

Click on the pain project of interest to see how we can support your R&D efforts
Your partner for building step by step your preclinical dossier

PREREQUISITES

1 • STRATEGY

- Customized R&D
- Consulting
- Training
- ALGOGram
- NOCIWay
- ANSbioSamples

Irwin grid
Dose Range
Safety
Side Effects
Intestinal transit

2 • SCREENING

- Hot Plate
- Tail Flick
- Plantar
- Acute and tonic pain
- Paw Pressure
- Formalin

3 • PATHOPHYSIOLOGY

- Traumatic Neuropathy
  - CCI
  - SNL
  - SNI

4 • DISEASES

- STZ Diabetic Neuropathy
- Chemo-induced peripheral Neuropathy
- OXP

BACK & FORTH TO STRATEGY LEVEL AT EVERY DEVELOPMENT PHASE
PREREQUISITES

INFLAMMATORY PAIN PROJECT

1 • STRATEGY
2 • SCREENING
3 • PATHOPHYSIOLOGY
4 • DISEASES

Irwin grid
Dose Range
Safety
Side Effects
Intestinal transit

Hot Plate
Tail Flick
Plantar
Acute and tonic pain
Paw Pressure
Formalin

Carrageenan
Capsaicin
Acute
Inflammatory Pain
Kaolin
CFA

CFA
Rheumatoid Arthritis
Osteoarthritis
MIA
MNX

Back & forth to strategy level at every development phase
Your partner for building step by step your preclinical dossier

**PREREQUISITES**

1 • STRATEGY

- Irwin grid
- Dose Range
- Safety
- Side Effects
- Intestinal transit

2 • SCREENING

- Hot Plate
- Tail Flick
- Plantar
- Acute and tonic pain
- Paw Pressure
- Formalin

3 • PATHOPHYSIOLOGY

- CFA
- Kaolin
- Carrageenan
- Capsaicin

- Inflammatory Pain
- Neuropathic Pain
- CCI
- SNL
- SNI

4 • DISEASES

- Bone Cancer Pain
- MRMT-1

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BACK & FORTH TO STRATEGY LEVEL AT EVERY DEVELOPMENT PHASE
Your partner for building step by step your preclinical dossier
Translational pain research is based on preclinical models with a well-understood mechanism and the application of these findings to the clinic (bottom-up). Another approach is based on exploratory research in the clinic and the back-translation of these results to preclinical models (top-down).

ANS Biotech R&D is one of our founding pillars built on the back-translational approach leading to develop original and relevant preclinical models inspired by clinical studies. We also undertake research projects in response to individual customer requests. Attentive to our clients’ needs, ANS Biotech has developed preclinical models in cancer pain, inflammatory pain, neuropathic pain, visceral pain, and osteoarthritis pain over the last years.

Based on our scientific experience in pain, we propose a variety of consulting services.

PROJECT EVALUATION: We provide advice, recommendations and a complete scientific evaluation based on an extensive experience in the development of drugs for pain relief.

PROJECT MANAGEMENT: For specific projects, we can elaborate preclinical and clinical strategies, and we are able to ensure outsourcing management until project completion.

SCIENTIFIC AND MEDICAL WRITING: Scientific documentation (publications, investigator brochures, regulatory reports, ...) can be prepared.

Technical expertise is critical to run in vivo experiments successfully and we have amassed a considerable number of laboratory skills over the years by leveraging the extensive experience of our laboratory team. Part of these skills might prove useful to our clients with respect to their own in-house activities, and transfer is available through on-site training either in ANS Biotech or client facilities.
IN VIVO SCREENING IN RATS

When profiling leads in your discovery programs, you should consider ALGOGram™, a unique in vivo screening tool that provides a rapid and cost-effective means to simultaneously explore activity in 10 fully validated pain models / tests across 5 different pain areas.

Whether your R&D programs target pain directly or they simply share features common to established pain mechanisms, you can obtain analgesic fingerprints of your leads in only 3 weeks.

ALGOGram™ provides a user-friendly pharmacological compound profile based on simple-to-view plots facilitating your crucial “GO / NO GO” decisions.

IN VIVO SCREENING IN MICE

If you are interested in a pain profile for your discovery leads, but are restricted to the use of mice, then you should consider NOCIWay™, a unique in vivo screening tool that has been configured for use in this species.

Advantages include low compound requirements, rapid turnaround time and cost-effectiveness.

NOCIWay™ simultaneously explores the activity of your compounds in 5 fully validated pain models / tests across 3 different pain areas.

The analgesic fingerprint provided by NOCIWay™ can be your first in vivo result serving as a guide for further development.

ANSbioSamples

DRUG LEVELS IN RODENT BIOLOGICAL TISSUES

Linking in vivo pharmacokinetic assessments with efficacy endpoints can give a better understanding of the dynamics of drug action, and ANSbioSamples provides the ideal platform to establish these key relationships.

With ANSbioSamples, dosing and collection of healthy or pathological tissues are performed using a variety of customizable paradigms combining the desired route of administration with more than 20 biological tissue sources.

Drug exposure information can be used in conjunction with efficacy endpoints or as a prelude to determine the ideal dosing / timing for subsequent efficacy assessments. Bioanalysis can be performed via our preferred partner organizations, or samples can be shipped worldwide to your vendor of choice.

Partners

Consider the combination of ANS Biotech experience with that of our partners.
» Qualification of the need, flexibility, fast turnaround times and operational excellence are our daily business »

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