

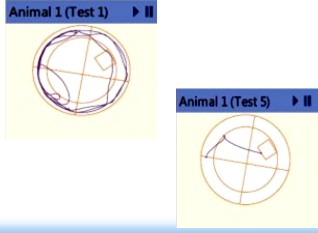
CNS|CRO offers rodent models for a variety of neurological disorders

- **ALS PDC** (Amyotrophic Lateral Sclerosis-Parkinsonism Dementia Complex)
 - Progressive model – motor neuron deficits in initial stages, followed by parkinsonism and cognitive decline
- **Epilepsy**
 - Acute and sub-chronic seizure models
- **Schizophrenia**
 - Models and evaluations for positive, negative, and/or cognitive symptoms
- **Stroke**
 - Focal: endothelin-1 (ET-1) microinjection rat model
 - Global: neonatal hypoxia-ischemia and carotid vessel occlusion models
- **Neuropathic Pain**
 - Chronic constriction injury model
 - Spared nerve injury model
 - In-vivo electrophysiology evaluations available
- **Autism Spectrum Disorder**
 - Pharmacological induction model; testing paradigm provides a comprehensive behavioral assessment, including multiple aspects of social-communicative ability
- **High Fat Diet**
 - Metabolic dysregulation model
 - Offspring exhibit some behavioral alterations similar to autism spectrum
- **Fibromyalgia**
 - Acid-saline rat model; evaluations for allodynia, muscle hyperalgesia, and visceral hypersensitivity available



progressive | predictive | customizable

Behavioral testing

- General activity/exploration
 - Anxiety/depression
 - Executive function
 - Gross/fine motor control
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- Neurosensory/neuromotor
 - Conditioned place preference/olfactory
 - Social behaviors
 - Learning & memory assessments

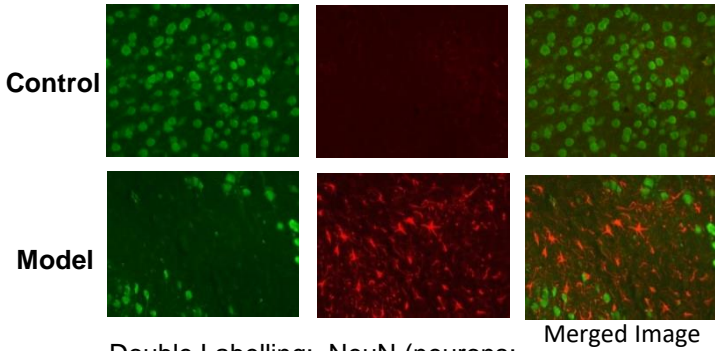
All tests are adaptable to suit individual needs

Pharmacokinetics & Safety Testing

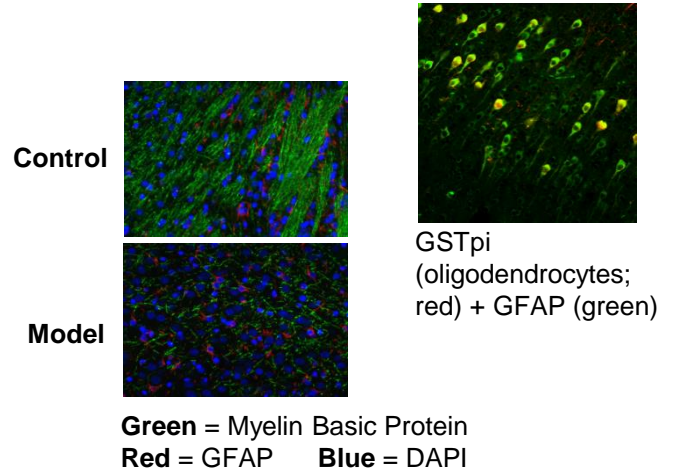
- ❖ Acute (≤24h), subacute (24h-48 days), subchronic (29-90 days), and chronic (4+ month) PK programs available
- ❖ Large variety of administration routes and sample collection techniques
- ❖ Safety evaluations performed using a modified IRWIN test

Histology

Neonatal HI Model



Double Labelling: NeuN (neurons; green) & GFAP (glial cells; red)

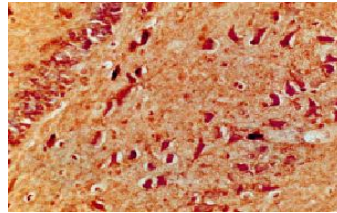


Green = Myelin Basic Protein
Red = GFAP Blue = DAPI

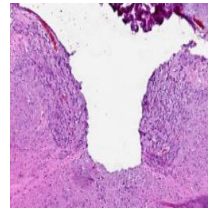
Timm staining + Cresyl



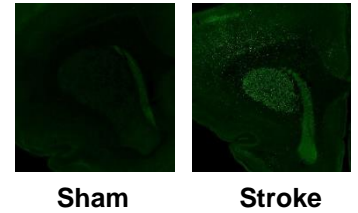
Somatostatin (DAB)



H&E



TUNEL



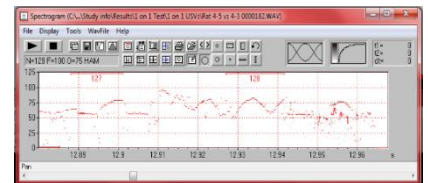
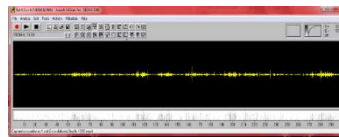
Sham

Stroke

Ultrasonic Vocalizations (USVs)

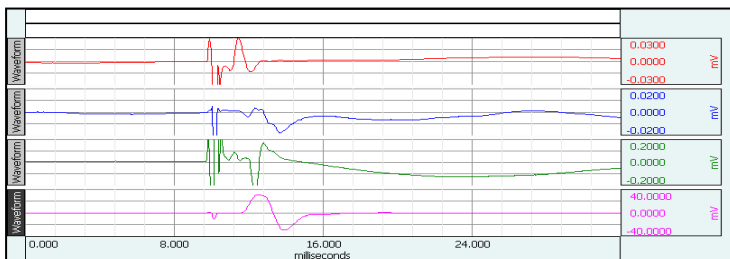


- assessments of affective state, useful for a variety of disorders (e.g. anxiety, PD, stroke, autism spectrum)



In vivo Electrophysiology

- assessments for peripheral and central nerve conduction, damage, and regeneration.



Especially valuable for pain studies