

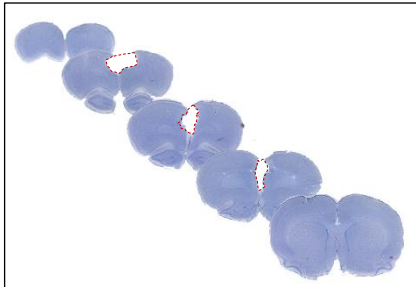
Model Overview

CNS|CRO's animal models of stroke include focal stroke protocols, usable in adult conditions. For evaluation of compound efficacy, CNSCRO offers a complete line of behavioral testing paradigms during stroke recovery, as well as the ability to evaluate communicative function through ultrasonic vocalization technology. Complex behavioral testing paradigms can be designed upon request, and may be combined with appropriate histology and/or neurochemistry to provide a customized assessment package.

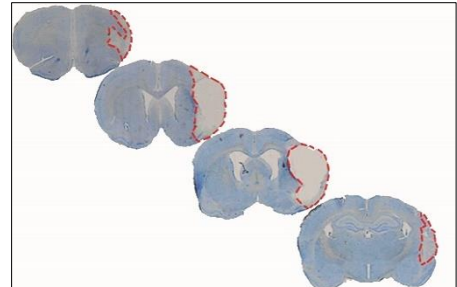
Models of Focal Stroke:

Endothelin-1 microinjections (ET-1)

- stereotaxic microinjections of ET-1 produce highly reproducible, defined lesions that correlate with functional loss in specialized brain regions
- injection of ET-1 in the vicinity of the MCA produces lesions comparable to those observed using the MCAo intraluminal filament technique
- focal injections into targeted brain regions can also be performed, allowing for the lesioning of specific sites in the cortex including the hippocampus, prefrontal cortex, and others



Representative brain lesion post-ET-1 prefrontal lesion



Representative brain lesion post-ET-1 MCA occlusion

CNS|CRO behavioral testing paradigms provide evaluation for emotionality, cognition, sensorimotor deficits, learning, and memory function, including:

Morris Water Maze, Spontaneous Alternation, Radial Arm Maze, Anhedonia Testing, Forced Swim, Attentional Set-Shifting, Horizontal Ladder, Staircase Task, and others.

*Our models of focal ischemic stroke have a
≥ 90% survival rate, due to our intensive
post-operative care*

Ultrasonic vocalization (USV) testing is also available as an add-on feature for most tests, allowing for assessment of communicative function and affective state