

Therapeutic area	Disease	Suggested first line tests (to pick)	Additional assays
Metabolism	Diabetes, obesity & metabolic syndrome	Glucose tolerance, insulin sensitivity, lean and fat body composition, glycemia, lipemia, hepatic enzymes and endocrinology	Diet induced obesity challenge, food restriction, glucose clamp, energy expenditure, food and water consumption, feces energy content, adaptative thermogenesis, exercise test
	Malabsorption & other gastrointestinal disorders	Food and water consumption, gross energy content in feces, blood chemistry	Necropsy, organ weight and targeted histology
Nephrology	Renal function	Urinary analysis, creatin clearance, proteinemia, albuminemia, renin activity, aldosterone levels	Echocardiography, non invasive blood pressure. Necropsy, organ weight and targeted histology
Cardio-vascular	Atherosclerosis	Cholesterol-enriched diet challenge, blood and tissue lipid, blood and aortic cholesterol levels, atheromatous plaques analysis by en face staining of aorta	Necropsy, organ weight and targeted histology
	Hypertension	Non invasive blood pressure & heart rate, echocardiography, renin activity, aldosterone levels	Blood pressure telemetry, hypertension model (angiotensin II, DOCA salt, L-NAME), renal function) Necropsy, organ weight and targeted histology.
	Heart failure, arrhythmia, cardio-myopathy	Non invasive blood pressure & heart rate, echocardiography, electrocardiography, heart fibrosis and histology	Necropsy, organ weight and targeted histology
	Hemostasis, coagulation	Prothrombine time, activated partial thromboplastin time, fibrinogen, hematology	Necropsy, organ weight and targeted histology.
Respiratory	Asthma & respiratory diseases	Plethysmography (spontaneous or metacholine induced airway responsiveness), bronchoalveolar liquide analysis, immunoglobulin levels and lung histology	Asthma models, pulmonary fibrosis, chronic obstructive pulmonary disease model*. Necropsy, organ weight and targeted histology
Inflammation	Immunology	FACS analysis, cytokine, immunoglobulins and basic hematology	Immunology, functional assays Necropsy, organ weight and targeted histology
	Inflammatory intestinal diseases	Thioglycollate peritonitis model, gut inflammation score*, hemocult*, disease severity score*	DSS model of intestinal inflammation*, blood chemistry, hematology, necropsy, organ weight and targeted histology
Psychiatry	Anxiety and depression	Open field, elevated plus maze, light/dark test, tail suspension test, forced swim test	Sucrose preference test. Targeted histology
	Schizophrenia	Acoustic startle reflex and prepulse inhibition	Cross-modal prepulse inhibition*. Targeted histology
	Memory and learning deficit (Alzheimer)	Y-Maze, Moris water maze, object recognition, pavlovian fear conditioning	Scopolamine-induced amnesia, neurogenesis. Target histology
Neurology	Parkinson disease & Huntington disease	SHIRPA, rotarod, grip test, traction reflex test, beam walking	Morag. Targeted histology.
	Sleep disorders	Circadian activity	Targeted histology
	Motor neuron disease & myopathies	SHIRPA, rotarod, grip test, traction reflex test, beam walking, exercise test, exercise, EMG	Lean composition. Necropsy, organ weight and targeted histology
	Pain	Tail flick, hot plate, formalin and shock threshold	Targeted histology
	Epilepsy	Pentylen-tetrazol induced seizure	Targeted histology
	Visual system	Slit lamp imaging, Fundus imaging, optical coherence tomography	Electroretinography, angiography (fluorescein, Evans Blue Dye)
	Auditory system	Auditory brain stem response	Acoustic startle reflex and prepulse inhibition test, click box
Development & growth	Development & growth	Window of lethality, histological characterization of embryonic and perinatal defects, dysmorphology screen, DEXA-scan	Necropsy, organ weight and targeted histology.

* test in development

For further information: Visit our web site (www.ics-mci.fr)

Contact us via e-mail (ics@igbmc.fr)