

PI First Name	Research Area 1	Research Area 2	Technique 1	Technique 2	Resources Available	Past Research Topic	Campus	Building	Contact Person	Contact Person's email address
Bill Atchison	Neurotoxicology	Motor system diseases	single cell live cell imaging	electrophysiology	equipment with proper training		East Lansing	Life Sciences	Bill Atchison	atchiso1@msu.edu
Lena Brundin	Neuroinflammation	Psychiatric Disorders, Depression and Suicide	Multiplex High Sensitivity Cytokine Measuring	Animal Models of Depression and Anxiety	Mesoscale Platform	Parkinson's Disease Rodent Models	Grand Rapids	Van Andel	Kyle Christensen	chris584@msu.edu timothy.collier@hc.msu.edu
Tim Collier	Parkinson's models	Aging	histology/ICC/microscopy laser capture microdissection (LCM)	primary neural cell cultures	generation of models/surgery	learning & memory	Grand Rapids	Van Andel	Tim Collier	scott.counts@hc.msu.edu
Scott E. Counts	Alzheimer's disease	aging			LCM instrument/technology		Grand Rapids	Van Andel	Scott Counts	scott.counts@hc.msu.edu
C. Lee Cox	Sensory processing	Fragile X syndrome	Electrophysiology	Neuropharmacology	TBD		East Lansing	BPS	C. Lee Cox	coxclee@msu.edu
Jim Galligan	Autonomic neurotransmission including target tissues		Intracellular neurophysiology calcium imaging, immunohistochemistry, transgenic animals	Imaging techniques for neuromuscular transmission in vivo and ex vivo models of inflammation and assays of gut function	Electrophysiology and imaging; organ baths		East Lansing	Life Sciences		
Brian Gulbransen	Enteric neuroscience	Glial cell physiology			antibodies, some transgenic animals	chemoreception	East Lansing	BPS	Brian Gulbransen	gulbrans@msu.edu
Colleen Hegg	Neuroregeneration	Neurodegeneration	confocal calcium imaging	mouse in vivo studies			East Lansing	Life Sciences	Hegg	hegg@msu.edu
Jack Johnson	Phylogenetic diversification in the brain related to behavior		Survey quantitatively on brains, anatomical libraries	Literature libraries	Collection of mammalian brains available for study	Organization and function of somatosensory system sex differences with emphasis on developmental neurobiology	East Lansing			
Cindy Jordan	mechanisms of sex differences in health and disease	neuromuscular degenerative disease	assessment of motor behavior	histology, intracellular recordings, qPCR	IHC, Retrograde track tracing, cre-lox and animal models, tfm androgen receptor deficient rats		East Lansing	Giltner		
Nicholas Kanaan	Tau protein, Alzheimer's disease and tauopathies	Aging and Neurodegenerative diseases	recombinant protein, monoclonal antibody, cell culture (including primary neurons), animal modeling (including viral vector models), immunohistochemistry/fluorescence, microscopy (bright field, epifluorescence, confocal, electron microscopy), Immunoblotting, ELISAs, molecular biology techniques (PCR, plasmid DNA cloning, mutagenesis, etc.), stereology		Antibodies, microscopes,	Yes, aging, Parkinson's disease and Huntington's disease	Grand Rapids	Van Andel	Tessa Grabinski	tessa.grabinski@hc.msu.edu
Gina Leininger	Obesity / Metabolic Disease	Motivated Behavior	Cre-lox mouse models, including generating knock-in mouse models in-house	Stereotaxic Injection of AAVs/Viruses to manipulate neuronal activity, tract tracing, etc.	Cre-Lox mouse models	Mitochondria - Apoptosis	East Lansing	BPS	Gina Leininger	leinning@msu.edu
Jack Lipton	Parkinson's disease	Fetal Exposure to Drugs of Abuse	HPLC	qPCR	HPLC and qPCR instrumentation,		Grand Rapids	Van Andel	Allyson Cole-Strauss	allyson.colestrauss@msu.edu
Joe Lonstein	Neurobiology of peripartum anxiety, maternal behavior, aggression.		Stereotaxic surgery and central drug infusion, Western blotting, immunohistochemistry, neuroanatomical tracing, observation of social and anxiety behaviors		Adult male and female laboratory rats, rat pups and juveniles, western blotting equipment, behavioral observation equipment, stereotaxic surgery equipment, general histology; tissue sonicator	Early hormone effects on sex differences in later brain and social behavior	East Lansing	Giltner	Joe Lonstein	lonstein@msu.edu
Keith Lookingland	Neurotoxicology/Neuropharmacology	Neurodegeneration	Amine Neurochemistry	Mitochondrial Bioenergetics	Equipment, some reagents	No	East Lansing	Life Sciences	Lookingland	lookingl@msu.edu
Frederic Manfredsson	Gene therapy of the nervous system	Viral vectors	Vector production (rAAV, Lentivirus)	Molecular biology, cloning, shRNA, protein biology	Viral vectors, plasmids		Grand Rapids	Van Andel	Fredric Manfredsson	manfreds@msu.edu
Rick Neubig	G-protein signaling	Academic drug discovery	Biochemistry, genetic mouse models	Cell culture, signal transduction	Assay development drug repurposing core (5-10,000 cmpds); high-throughput screening		East Lansing	Life Sciences		
Tony Nunez	Circadian rhythms	Learning and memory	ICC; small animal surgery	Behavioral measures	grass rats	hormones and behavior	East Lansing	Giltner	Tony Nunez or Andy Gall	nunez@msu.edu
Annette Pantall	Motor control in clinical populations	Electrophysiological changes in painful muscle	EMG, basic signal analysis, kinetic analysis	Nerve stimulation	EMG, neurostimulator	Peripheral nerve injury in cats				
Rajiv Ranganathan	Human sensorimotor control and Learning	Movement Rehabilitation	Assessing movement kinematics in functional and virtual tasks	Biomechanics	motion capture, force plate, robot for bimanual movements		East Lansing	Other	Rajiv Ranganathan	rrangana@msu.edu
Mazei-Robison	signaling in the ventral tegmental area	animal models of neuropsychiatric diseases	stereotaxic surgery, viral mediated overexpression, mouse behavior	molecular and immunohistochemical techniques	antibodies, behavioral studies	dopamine transporter	East Lansing	BPS	michelle mazei-robison	mazeirob@msu.edu
AJ Robison	Learning and addiction	Hippocampal gene transcription	protein/DNA biochemistry	mouse behavior and physiology	antibodies, mouse behavioral facilities, dendritic spine studies		East Lansing	BPS	AJ Robison	robiso45@msu.edu
Ashlee Rowe	Effects of scorpion neurotoxins, k+ channels, neuromuscular expression of channels, toxins that induce pain	natural variation in structure and function of ion channels in wild caught mouse populations	molecular genetics, cloning, sequencing, cell culture, future electrophysiology	behavioral testing (mice) pain related phenotypes	colony of two species of wild mice resistant to toxins. variability in structure and function of ion channels	mechanisms of resistance to toxins	East Lansing	Giltner		
Cheryl Sisk	behavioral neuroendocrinology of puberty and adolescence	social behaviors	immunohistochemistry	radioimmunoassay	quantitative microscopy (neurolucida, stereoinvestigator)	circadian rhythms	East Lansing	Giltner	Cheryl Sisk	sisk@msu.edu
Laura Smale	Circadian rhythms		behavior monitoring, animal surgery, immunohistochemistry, microscopy, stereotaxic surgeries		grass rats, reagents, microscope, equipment for animal surgeries	social behavior	East Lansing	Giltner	Laura Smale	smale@msu.edu

Caryl Sortwell	Therapies for PD	Trophic factors	Stereotaxic surgeries	IHC; rats	Stereotaxic surgeries; neurosurgical interventions	Animal models of depression	Grand Rapids	Van Andel	Unknown	
Kathy Steece-Collier	Mechs of LIDs	Maladaptive plasticity that occurs in response to disease and therapeutics	Rats and some mice, model neurodegenerative behaviors	IHC, Golgi 3D neuron reconstruction, gene silencing/overexpression	IHC golgi 3d reconstruction, in vivo modeling of motor dysfunction and dyskinesia	Opioid tolerance				
Greg Swain	Electrochemistry	Neurosignaling Processes in the Vasculature and GI Tract	Electrochemistry	Separations	All reagents and equipment needed for in vitro electrochemical measurements		East Lansing	Other	Greg Swain	swain@chemistry.msu.edu
Irving E. Veba	Proteome dynamics associated with neurodegeneration	Alzheimer's disease pathobiology	Neuroproteomics	Biochemical and protein chemistry	Different methods of protein purification and detection, protein-protein interaction, mouse models of neurodegeneration, mass spectrometry-based proteomics, cloning and mutagenesis, recombinant protein, cell culture		Grand Rapids	Van Andel	Irving E. Vega	Irving.vega@hc.msu.edu
Juli Wade	hormonal and genetic mechanisms regulating brain structure and behavior	sexual differentiation of the brain	ICC, in situ hybridization; radioimmunoassays; steroid metabolizing enzyme assays; microscopy; qRT-PCR; basic molecular techniques		scintillation counter; GeneQuant; speedvac; qPCR instruments; thermocyclers		East Lansing	Giltner	Juli Wade	wadej@msu.edu