The Behavioral Neuroscience Group at Binghamton University is comprised of experienced faculty and research scientists committed to translational neuroscience. Our laboratories are headed by international experts with established in vivo animal models that span a wide range of behavioral and neural functions. We are uniquely situated to provide partners with cost-efficient models and tools necessary to move novel concepts and compounds from bench to bedside. Specific expertise and models currently employed with application toward pharmaceutical development, intervention and translation can be found on this page.

**Areas of specialization:** Stress, depression and anxiety; development of memory and drug abuse; learning and memory; developmental psychopharmacology; movement disorders; taste and ingestion; and developmental neuroendocrinology.

**Research scientists:**
- **Christopher Bishop**, movement disorders
- **Nicole Cameron**, developmental neuroendocrinology
- **Terrence Deak**, stress, depression and anxiety
- **Patricia Di Lorenzo**, taste and ingestion
- **Lisa Savage**, learning and memory disorders
- **Linda Patia Spear**, developmental psychopharmacology
- **Norman Spear**, development of memory and alcohol abuse

**For more information visit:**
go.binghamton.edu/BNS

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**BEHAVIORAL TESTS COMMONLY EMPLOYED:**

**Motor Tests**
- Open Field Locomotion
- Rotarod
- Forepaw Adjusting Steps Test
- Cylinder Test
- Dyskinesia (AIMs) Ratings

**Cognitive Tests**
- Radial Arm, T-Mazes and Runways
- Ultrasonic Detection
- Spontaneous and Delayed Alternation
- Non matching-to-sample
- Discrimination learning

**Stress Tests**
- Acute and Chronic Stress
- Immune Challenge
- Hypoglycemia and Glucoprivia
- Restraint
- Social Defeat

**Anxiety and Depression Paradigms**
- Forced Swim Test
- Fear Conditioning and Models of Anxiety
- Models of Behavioral Despair
- Learned Helplessness
- Elevated Plus Maze

**Drug Self-Administration**

**Acute Illness Tests**
- Adipsia
- Aphagia
- Fever
- Social Interaction

**Analgesic Tests**
- Tail-Flick
- Paw-Lift

**Tests of Olfaction and Ingestion**

**SURGICAL TECHNIQUES:**
- Lesions and Cannulations
- Single and Multiple Cell Recording
- In Vivo Microdialysis
- Embryo Transplant

**MOLECULAR AND BIOCHEMICAL ASSAYS:**
- ELISA/EIA
- HPLC
- Immunocytochemistry
- In Situ Hybridization
- Radioimmunoassay
- Real Time Quantitative RT-PCR
- Western Blot