Purpose of the Collection

The physiology and pharmacology collection of the Allyn & Betty Taylor Library is intended to support the research activities of faculty and staff as well as students at the undergraduate, M. Sc. and PhD levels. The collection is also intended to support the research activities of the various multidisciplinary research groups affiliated with the department, namely the CIHR Group for Action and Perception, Gap Junction Group, CIHR Group in Vascular Biology, and the CIHR Group in Skeletal Development and Remodeling. The collection further supports the instructional requirements of the Department at the undergraduate and graduate levels in all programs in the Schulich School of Medicine & Dentistry, as well as teaching students in other faculties.

Scope of Coverage

1) LANGUAGE: English is the primary language of collection in physiology and pharmacology with other languages being considered upon request.

2) GEOGRAPHY: sources of publication are primarily Canada, the United States, Australia and Europe with the language restriction applied. Other regions are considered upon request and dependent upon funding availability.

3) CHRONOLOGY: Materials with a recent imprint date are preferred. Collection of older materials will be considered upon request but will be dependent upon funds as well as availability.

Type of Material Collected

In general, acquisitions will include monographs, book series and journals. All theses and dissertations affiliated with the Department are also collected. Alternate formats such as CD-ROM, video, DVD, and microform are considered on an individual request basis. The focus of collecting is now shifting to resources available online and these are preferentially selected over their print counterparts especially in serials.

Exclusions

With the exception of individual requests and some selective acquisitions the following items are not actively pursued:

popular literature
conference and symposium proceedings, theses or dissertations from other institutions course textbooks.

**Material Transfer to Long Term Storage:**
Periodically it becomes necessary to analyze space availability in order to accommodate the growing collection. At these times, titles will be identified that can be transferred to our long term storage facilities. Criteria for transfer selection include but are not limited to the following:

1) Outdated or previous editions of titles  
2) Medium to low use items  
3) Material that is available in alternate formats, i.e. online  
4) Materials that would benefit from storage in a more controlled environment.

**Subject areas in support of research:**
Action and perception with attention to  
Cortical processing and organization  
Dorsal stream  
Ventral stream  
Visual perception  
Acute Respiratory Distress Syndrome (ARDS)  
Adenosine  
Adenylyl cyclase  
Adrenergic receptors  
Ageing  
Aldosterone  
Alzheimer’s disease with attention to beta-amyloid  
Anti-inflammatory therapies  
Apoptosis with attention to nervous tissue Autonomic nervous system with attention to  
Enteric neural function  
Axon guidance with attention to Eph receptors β-arrestins  
Brain development  
Brain injury with attention to  
Cerebral edema  
Asphyxia  
Breast cancer  
Calcium fluxes with attention to  
$Ca^{2+}$/calmodulin dependent processes  
Cancer chemotherapy  
Cardiac hypertrophy  
Cardiomyocytes  
Cardiovascular physiology with attention to
Arrhythmias
Defibrillation devices
Neurophysiological control

Cell maturation, transformation, and regeneration with attention to

Epidermal cells
  Transcription factors especially E2F family
  Cellular senescence

Cellular and molecular physiology
Cellular communication including signaling and trafficking
Cholinergic transmission
Connective tissue growth factors
Connexins
Depression

Developmental biology with attention to
  Embryogenesis
  Gametogenesis
  Mammalian development Diabetes

Drug interactions including Adverse
drug reactions Drug-food interactions
Drug hypersensitivity reactions
Herb-drug interactions

Drug metabolism with attention to
  Drug metabolites and toxicity
  Kidney diseases

Epilepsy with attention to
  Acute and chronic seizures
  Behavioral alterations post seizure

Exercise physiology
Fetal and neonatal physiology
Fetal growth restriction
Fetal heart development
Fetal programming
Fibrogenesis
Fibrotic diseases with attention to
  Scleroderma
GABA receptors Gap junctions

Gastrointestinal physiology with attention to
  Excitatory mediators
  Gastrointestinal mucosal barrier
  Gastrointestinal peptides
  Inhibitory mediators
  Microvascular function
  Neural control
Gene expression and regulation
Glucocorticoids
G-protein coupled receptor including G-protein receptor kinases
G–proteins
Growth factors with attention to
  Fibroblast growth factor
  Insulin-like growth factor
  Transforming growth factor beta
Heart development
Heart failure
Herbal medicines
Hippocampus
Homocysteine
Huntington’s disease
Hypertension with attention to
  Experimental hypertension
  Gender differences
Immunopharmacology
Inflammation and vascular biology with attention to Systemic inflammation
Leptin
Lipoprotein production and lipid toxicity
Membrane transport systems with attention to Nucleoside transport
Metabolic physiology
Metallothioneins
Molecular pharmacology
Multiple sclerosis including imaging
Musculoskeletal physiology with attention to
Neural control of muscle force   Muscle fatigue mechanisms
Neurochemical communication with attention to
  Acetylcholine synthesis
  Choline transport protein
  GABA signaling
  Glutamatergic synaptic plasticity Ion channels
  Neurotransmitter transporters
  Neurotransmitters
Neuroimaging including fMRI
Neuronal injury
Neuropharmacology Neurophysiology with attention to Cerebellar control of movement
  Motor neurophysiology
Neural control of movement
Neural control of cognition
  Prefrontal cortex organization
  Postural control
Sensory – motor control
  Transcortical magnetic stimulation
  Visually guided behaviours
Nitric oxide
Nuclear receptors
Nuclear transcription factors especially Mist 1
Nucleoside analogues
Orofacial physiology with attention to
  Swallowing
Osteoporosis
Pancreas with attention to Islet
  cell differentiation
  Pancreatic development
Parathyroid hormone including receptors
Pharmacodynamics
Pharmacogenomics Pharmacokinetics
Placental insufficiency
Prion diseases
Pulmonary inflammation
Pulmonary physiology with attention to:
  Mechanical ventilation Pulmonary
  surfactant system
Reproductive physiology with attention to
  Blastocyst formation and implantation
  Gonadotrophin releasing hormone receptor
Preimplantation processes
  Retinoic acid signaling
RNA binding proteins with attention to Hermes
Sepsis including hemodynamics and oxygen delivery Signal
  transduction
Signaling pathways with attention to
  G-Protein signalling including RGS proteins
  LPA receptor signalling
  TGFβ receptor signalling
  Integrins
Skeletal development and remodeling with attention to
  Bone growth
  Chondrocytes
Osteoblasts
  Osteoclasts
Smooth muscle physiology
Sodium – hydrogen exchanger
Spinal cord injury
Stanniocalcin biology Stem cell biology
Stroke
Synaptic transmission with attention to Swallowing
Vascular pharmacology with attention to Endothelium Venous receptors Vascular regulation

Subject areas in support of instruction
Cancer chemotherapy
Cardiovascular pharmacology
Cardiovascular physiology
Cell physiology – introductory and advanced
Drug action
Endocrine physiology
Exercise physiology – introductory and advanced
Fetal physiology
Gastrointestinal physiology
Gene expression pathways and drug discovery
Grant writing
Human physiology Human toxicology Laboratory methods and protocols
Mammalian organogenesis Mammalian physiology
Molecular and cellular neurobiology
Molecular pharmacology
Motor neurophysiology with attention to posture and movement
Natural source medications – pharmacology and toxicology
Neuropharmacology
Neurophysiology
Pharmacology & therapeutics - introductory and advanced
Regenerative medicine and tissue repair
Regulatory & integrative physiology
Reproductive physiology
Sensory physiology
Stem cell biology
Toxicology – introductory and advanced
Transporters – drug and solute

Support from Other Collections
In recognizing the many interdisciplinary collaborative research groups within the Department, the collection for physiology & pharmacology is further supplemented by collection activities in related fields such as the allied health
sciences, basic and clinical medical sciences, biological sciences, dentistry, 
kinesiology, nursing and psychology.