

Physiology and Pharmacology Collections Management Policy

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Subject librarian: John Costella

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
 TGF β 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.

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