# ASPET ANNUAL MEETING TOPIC AREAS FOR SESSION PROPOSAL FORM

#### Below are descriptions of the topical areas to help you select where your session best fits. Multiple can be selected on the session proposal form.

#### **Career / Professional Development**

Career and professional development sessions can be targeted to appeal to one segment of one's career path, such as from a student's perspective or a mid-career scientist's perspective. They can also be general interest sessions that appeal universally such as health and wellbeing topics, time management, etc.

# **Behavioral Pharmacology**

The Division for Behavioral Pharmacology (BEH) serves members interested in research on the behavioral effects of drugs. These investigations focus on how drugs alter behavior and encompass perspectives that range from descriptive to mechanistic. Behavioral pharmacologists examine drugs with an emphasis on effects in the whole organism and with an appreciation of the considerable influence of environmental variables on drug action. Areas of interest include, (but are not limited to): effects of drugs on conditioned or unconditioned behavior, application of receptor theory to behavioral pharmacology, pharmacological aspects of drug abuse, use of animal models to aid in the discovery and development of new pharmacological agents to treat neurological or psychiatric disorders, drug interactions, the effects of repeated or chronic exposure to drugs, and the use of pharmacological tools in the analysis of behavior.

#### **Cancer Pharmacology**

The Division for Cancer Pharmacology (DCP) serves members with interests in all aspects of basic and translational cancer pharmacology research. Specific areas include, (but are not limited to) discovery and preclinical development of new anticancer agents, preclinical toxicology and adverse reactions to anticancer drugs, technical developments in novel cancer-related target and therapeutic identification, mechanisms of anticancer drug resistance, mechanistic studies of novel therapeutic regimens, pharmacogenetics of anticancer therapeutics, and biomarker studies in anticancer drug response.

#### **Cardiovascular Pharmacology**

The Division for Cardiovascular Pharmacology (CVP) serves members with interests in all aspects of cardiovascular pharmacology research from the molecular level to whole animal and clinical studies. Specific areas include, but are not limited to, mechanisms of cardiovascular drug action, autonomic pharmacology, cell signaling, cardiac pharmacology, endothelial and smooth muscle cell pharmacology, hemostasis and thrombosis, blood vessel wall interactions, and mechanisms involved in the pathogenesis, diagnosis and treatment of cardiac, renal, pulmonary and cerebral vascular disease, including hypertension, coronary artery disease and stroke.

#### **Drug Discovery and Development**

The Division for Drug Discovery and Development (DDD) serves to help its members teach, present and discuss the critical role of pharmacology in all phases of the drug discovery, development and registration process. The process encompasses, but is not limited to; target discovery and validation, medicinal chemistry, combinatorial chemistry, molecular modeling and drug design, structure-pharmacological function relationships, functional genomics and proteomics, high throughput screening, identification and development of natural products, nutraceuticals, pharmacokinetics and pharmacodynamics, clinical testing and drug regulation/registration, clinical contracting and pharmacoepidemiology and pharmacoeconomics.

#### **Drug Metabolism and Disposition**

The Drug Metabolism and Disposition Division (DMDD) serves members with interests in all aspects of drug disposition, metabolism and transport from the molecular through the phenotypic, from in vitro to in vivo approaches, and from model systems to expression of polymorphisms in humans. Specific areas include, but are not limited to, pharmacogenetics of xenobiotic metabolism and transport, regulation of the drug metabolizing and conjugating enzymes, drug transporters, pharmacokinetics, metabolite identification, role of drug metabolism, transport and disposition in drug discovery and development, structure-function relationships of relevant enzyme systems, free radicals and reactive intermediates, metabolic mechanisms of adverse drug responses, and studies focusing on all drug-metabolizing enzymes.

# **Molecular Pharmacology**

The Division for Molecular Pharmacology (MP) serves members applying approaches of biochemistry, biophysics, genetics, and molecular biology to study molecular mechanisms of drug action, regardless of the class of drug. Areas of interest include (but are not limited to): drug receptor-effector coupling and its regulation (e.g. receptor structure/function, G proteins, kinases, phosphatases, and second messenger synthesis and degradation), voltage- and ligand-gated ion channels, antimicrobial and antineoplastic drug action, steroid and growth factor receptors, gene regulation, and identification of molecular targets for drugs.

#### Neuropharmacology

The Division for Neuropharmacology (NEU) serves members with interests in all aspects of neuropharmacology research from studies in the central nervous system to peripheral autonomic pharmacology. Specific areas include, but are not limited to, neurochemistry, neurotransmission, neurotoxicity of drugs, neural receptor pharmacology, signal transduction in neural tissue, mechanisms of nervous system disorders, treatment of nervous system disorders, the pharmacology of drugs acting on the central nervous system and the peripheral nervous system, alcohol and drug addiction, drugs of abuse, and behavioral neuropharmacology.

# **Pharmacology Education**

The Division for Pharmacology Education (DPE) serves to promote rational therapeutics by facilitating the development of pedagogical skills in pharmacology educators and promoting educational research in pharmacology. Our primary focus is on pharmacology teaching and learning by graduate and health sciences students.

# Toxicology

The Division for Toxicology (TOX) serves members with interests in all aspects of toxicology, including (but not limited to) neurotoxicology, teratology, molecular and cellular mechanisms of drug and chemical toxicity, immunotoxicology, organ toxicities, risk assessment, environmental toxicology, models of toxic injury, toxic intermediates, and mechanisms of chemical interactions.

# **Translational and Clinical Pharmacology**

The Division for Translational and Clinical Pharmacology (TCP) serves to reflect the changing landscape of the field and embrace the diversity of its members. TCP strives to provide career development and trainee mentorship for all pharmacologists attempting to integrate their experimental results and translate them for the benefit of health. Scientists with diverse research interests might be expected to find a home in this highly relevant and dynamic division.

# Other

Topics that do not fit into any of the categories above.