



1159-APS	Aging and muscle function
1129-APS	Alcoholic and nonalcoholic fatty liver diseases
1149-APS	Altitude
1106-APS	Altitude and hypoxia
1103-APS	Anabolic Resistance to Exercise with Aging or Disease (Flukey/Bodine)
1010-APS	Angiogenesis and vascular growth
1031-APS	Angiogenesis/microvascular remodeling/injury & repair
1059-APS	Apoptosis and cell death
1032-APS	Atherosclerosis/thrombosis/platelets
1060-APS	ATPase-driven ion pumps
1169-APS	Autonomic Control of Visceral Functions (Travagli)
1130-APS	Barrier function and repair
1179-APS	Biomarkers, stem cells, and personalized medicine
1048-APS	Biomaterials
1225-APS	Blood pressure and fluid volume regulation in pregnancy and developmental programming
1011-APS	Blood pressure regulation
1071-APS	Blood-brain barrier, brain blood flow and metabolism
1157-APS	Bone-Muscle Crosstalk (Brotto/Johnson)
1072-APS	Brain development and aging
1160-APS	Calcium and muscle contractility
1161-APS	Calcium homeostasis
1012-APS	Cardiac electrophysiology
1013-APS	Cardiac function and dynamics
1162-APS	Cardiac muscle, physiology
1227-APS	Cardiovascular and renal mechanisms in obesity and diabetes
1092-APS	Cardiovascular endocrinology, including renin-angiotensin-aldosterone
1107-APS	Cardiovascular responses to exercise
1150-APS	Carotid body
1049-APS	cell adhesion and migration in cancer
1050-APS	Cell mechanics
1061-APS	Cell volume, osmoregulation and water transport
1200-APS	Cell-Cell and Cell-Matrix Adhesions in Control of Lung Fluid Balance and Innate Immunity: Talking is Critical! (Birukov/Mehta)
1062-APS	Cellular signalling: second messengers, extracellular matrix, cell-cell Interaction, kinases
1173-APS	Central autonomic regulation
1079-APS	Central nervous system: other
1080-APS	Central regulation of food intake and body weight
1081-APS	Central regulatory systems
1014-APS	Cerebral circulation
1108-APS	Circadian and biological timekeeping
1070-APS	Cognition and behavior
1001-APS	Communication between Cardiac Cells and the Extracellular Matrix (Chang/Gardner)
1084-APS	Comparative cardiovascular and respiratory physiology
1085-APS	Comparative metabolic physiology, biochemistry and endocrinology
1086-APS	Comparative muscle physiology, locomotion and behavior
1087-APS	Comparative osmotic, ionic, and acid-base regulation
1148-APS	Compensatory Responses to Acute or Chronic Hypoxia Exposure (Schrage)
1068-APS	Consequences of chronic intermittent hypoxia (Schreihof/Toney)
1163-APS	Contractile and regulatory proteins

1205-APS	Control of breathing: chemoreception
1204-APS	Control of breathing: connectivity, neuromodulation and neurotransmission
1206-APS	Control of breathing: development
1207-APS	Control of breathing: integrated responses
1208-APS	Control of breathing: respiratory motoneurons and muscles
1209-APS	Control of breathing: rhythm generation
1015-APS	Coronary circulation
1201-APS	Development of the Control of Breathing (Bailey/Bavis)
1226-APS	Developmental programming and cardio-renal function in adults
1016-APS	Diabetes and insulin resistance
1002-APS	Diabetic Cardiovascular Dysfunction: ROS-dependent and -Independent Causes and Complications (Wold/Meszaros)
1190-APS	Diabetic renal disease
1109-APS	Diving and hyperbaria
1003-APS	Emerging Paradigms in Microvascular Signaling (Straub/Westcott)
1017-APS	Endothelial cell biology
1123-APS	Epithelial development, polarity, differentiation
1164-APS	Excitation-contraction coupling mechanisms
1110-APS	Exercise metabolism and locomotion
1111-APS	Exercise responses and training
1090-APS	Exercise/nutrition and muscle protein synthesis (Riechman)
1018-APS	Extracellular matrix and cardiac remodeling
1112-APS	Fever and hypothermia
1019-APS	Free radical signaling, oxidant stress, and injury
1131-APS	Gastrointestinal cancer and metastasis
1132-APS	Gastrointestinal development
1133-APS	Gastrointestinal motility
1134-APS	Gastrointestinal nutrient sensors
1128-APS	Gastrointestinal Physiology and the Microbiome (Worrell/Carey)
1020-APS	Gene expression and cardiovascular function
1021-APS	Genetic models of cardiovascular function
1180-APS	Genomics, genetics, and gene expression
1093-APS	Gestation, fetal, and neonatal biology, including mammary gland and lactation
1135-APS	GI and liver stem cells
1136-APS	GI hormones, peptides and receptors
1113-APS	Gravitational and space
1137-APS	Growth factors, proliferation, differentiation and apoptosis
1094-APS	Growth, connective tissue and bone metabolism
1165-APS	Heat shock proteins and muscle function
1138-APS	Hepcidin and iron homeostasis
1147-APS	History of Physiology
1191-APS	Hormone and autocoid effects on the kidney
1022-APS	Hypertension
1221-APS	Hypertension: Mechanisms and Consequences (Moreno-Quinn)
1152-APS	Hypoxia/transmitters and second messengers
1151-APS	Hypoxia-induced gene expression
1153-APS	Hypoxic pulmonary vasoconstriction
1222-APS	Immune Cells and their Role in the Regulation of Blood Pressure and Sodium Homeostasis (TBD)
1095-APS	Immunoendocrinology
1139-APS	Immunology and microbiology of the gut
1033-APS	Inflammation/leukocyte-endothelium interactions
1228-APS	Inflammatory mediators in regulation of blood pressure and renal function
1219-APS	Innovative Use of Technology for Teaching and Student Assessment in Physiology (Gopalan)
1034-APS	Instrumentation and live cell imaging
1096-APS	Insulin, glucagon and other pancreatic hormones
1154-APS	Intermittent hypoxia/oxidative stress

1140-APS	Intestinal inflammation and pathophysiology
1127-APS	Intestinal Solute Transport in Inflammation (Eckmann)
1063-APS	Intracellular pH and acid-base transport
1155-APS	Ion channels
1057-APS	Ion Channels (TBD)
1035-APS	Ischemia-reperfusion/free radical biology
1082-APS	Laboratory selection and the evolution of physiological traits (Garland)
1004-APS	Leptin: Metabolic, Cardiovascular and Immune Control. Does it All Come from the Brain? (Belin de Chantemele/Lob)
1097-APS	Lipid, lipoprotein and cholesterol metabolism
1141-APS	Liver physiology and pathophysiology
1202-APS	Lung Ion Channels and Fluid Homeostasis (Matalon/Kuebler)
1210-APS	Lung physiology: airway epithelial cell biology
1211-APS	Lung physiology: airway responsiveness and smooth muscle cell biology
1212-APS	Lung physiology: alveolar epithelial cell biology
1213-APS	Lung physiology: biomechanics, surfactant and gas exchange
1214-APS	Lung physiology: development and plasticity
1215-APS	Lung physiology: endothelial cell biology
1216-APS	Lung physiology: fluid balance
1217-APS	Lung physiology: pulmonary hypertension
1218-APS	Lung physiology: vascular smooth muscle cell biology and vascular regulation
1036-APS	Lymphatic and venular function
1051-APS	Mathematical models of organ systems, tissues or cells
1158-APS	Mechanical Muscle Damage: Is Titin the Giant, or is the Z-line Samson? (Myburgh)
1142-APS	Mechanisms of intestinal nutrient, water and electrolyte transport
1052-APS	Mechanobiology
1064-APS	Membrane domains, macromolecular complexes, trafficking and cell polarity
1143-APS	Membrane trafficking and secretion in digestive epithelia
1114-APS	Metabolism in muscle
1144-APS	Metal ion transport
1023-APS	Microcirculation
1181-APS	microRNA (miRNA), siRNA, and other regulatory RNA
1037-APS	Microvascular cell signaling pathways
1038-APS	Microvascular development and aging
1039-APS	Microvascular flow regulation/oxygen delivery/networks
1040-APS	Microvascular mechanics/hemodynamics/rheology
1041-APS	Microvascular molecular biology/genetic approaches
1042-APS	Microvascular pathophysiology/tumor microcirculation
1005-APS	Microvascular Permeability: Paracellular versus Transcellular Transport (Lominadze/O'Donnell)
1043-APS	Microvascular pharmacology/therapeutics
1083-APS	Mitochondrial bioenergetics in comparative and integrative physiology (Jastroch)
1091-APS	Mitochondrial function (Crozier)
1170-APS	Molecular Sensors in Afferents Neurons that Contribute to Pain, Fatigue, and Activation of Autonomic Reflexes in Health and Disease (Benson)
1166-APS	Muscle chemistry and metabolism
1115-APS	Muscle plasticity and gene regulation/expression
1024-APS	Myocardial ischemia/myocardial metabolism
1171-APS	NCAR Trainee Featured Topic (Carter)
1174-APS	Neural control of cardiorespiratory function
1175-APS	Neural control of cardiovascular function
1116-APS	Neural control of the circulation during exercise
1176-APS	Neural control of visceral and metabolic function
1177-APS	Neural mechanisms in cardiovascular disease
1074-APS	Neurodegenerative and neurotoxic disorders
1098-APS	Neuroendocrinology, hypothalamus and pituitary
1075-APS	Neuroendocrinology/neuroimmunology

1229-APS	Neurohumoral mechanisms of blood pressure regulation
1073-APS	Neuroinflammation/neuroprotection/ischemia
1076-APS	Neuronal excitability (ion channels, transporters)
1077-APS	Neuroplasticity
1078-APS	Neurotransmission and signaling molecules
1172-APS	Neurovascular Responses to Aging and Disease: Adaptations and Interventions (Schrage)
1053-APS	New approaches to biomedical data analysis
1054-APS	New approaches to biomedical experimentation
1025-APS	Nitric oxide/carbon monoxide/vasoactive molecules
1006-APS	Novel Regulators of Cardiac Fibroblast Function and Fate (Czubryt)
1232-APS	Novel regulatory mechanisms in blood pressure control
1182-APS	Novel technologies in physiology and genomics
1145-APS	Nuclear receptors in the liver and GI tract
1099-APS	Obesity and satiety
1223-APS	Origins of Impaired Cardiovascular-Renal Function and Body Fluid Balance (Nishimura)
1088-APS	Other comparative and evolutionary physiology
1192-APS	Oxidative stress and the kidney
1065-APS	Oxidative stress biology
1156-APS	Oxygen sensing and signal transduction
1146-APS	Pancreatic physiology and pathophysiology
1044-APS	Pericytes and Stem Cells
1027-APS	Peripheral Circulation
1045-APS	Permeability/fluid & solute exchange/glycocalyx
1117-APS	Physiological adaptations to inactivity
1183-APS	Physiological genomics of exercise, respiration, and skeletal muscles
1184-APS	Physiological genomics of nutrition, endocrine, metabolism, and the gastrointestinal system
1185-APS	Physiological genomics of the cardiovascular and renal systems
1186-APS	Physiological genomics of the nervous system
1100-APS	Protein, amino acid and carbohydrate metabolism
1055-APS	Regenerative medicine
1189-APS	Regulation of Transport Proteins in Kidney Intercalated Cells (Pastor-Soler/Petrovic)
1121-APS	Regulation of Transporters and Modulatory Proteins, Lipids, and Hormones (TBD)
1122-APS	Regulation of Water and Ion Channels and Modulatory Proteins, Lipids, and Hormones (TBD)
1193-APS	Renal epithelial acid-base mechanisms
1194-APS	Renal hemodynamics and glomerular filtration rate
1195-APS	Renal ion transport, trafficking, and regulation
1196-APS	Renal organic solute transport
1197-APS	Renal pathology, toxicology, and cystic diseases
1198-APS	Renal water transport, urea transport, and countercurrent mechanisms
1230-APS	Renin-angiotensin-aldosterone system in regulation of blood pressure and renal function
1101-APS	Reproduction and sex hormones
1203-APS	Respiratory Pattern Variability: Insights into Respiratory Control Mechanisms in Health and Disease (Dick)
1118-APS	Respiratory responses to exercise
1089-APS	Scholar Award Competition
1231-APS	Sex differences in blood pressure and fluid volume homeostasis
1199-APS	Sex differences in renal function and disease
1028-APS	Shock
1119-APS	Signaling in muscle
1167-APS	Skeletal muscle, physiology
1168-APS	Smooth muscle, physiology/pharmacology
1224-APS	Sodium Water Homeostasis: Genetic and Comparative Models (Pannabecker/Hyndman)
1066-APS	Stem cells and cell growth, development and differentiation
1102-APS	Stress and trauma including adrenal gland
1069-APS	Sympathetic dysregulation in obesity (Sartor/Stocker)
1187-APS	Systems biology, computational modeling, and bioinformatics

1007-APS	Targeted Proteomic Analyses of Heart Failure (Ping/Lindsey)
1120-APS	Temperature regulation and fluid balance
1104-APS	The Lethality of Trauma: New Insights into the Physiology of Hemorrhage (Convertino)
1105-APS	Thermal Physiology: From Acute Responses to Protective Adaptation (Minson)
1056-APS	Tissue engineering
1046-APS	Tissue-microvessel interactions/extracellular matrix
1126-APS	Transcellular and paracellular permeability
1188-APS	Transcriptomics, proteomics, and metabolomics
1008-APS	Transient Receptor Potential (TRP) Channels and Endothelial Calcium Regulation in Native Cells and Whole Vessels (Marrelli/Earley)
1178-APS	Translational Biomarkers of Hypertension: Insights from Animal Models (Joe)
1220-APS	Translational physiology
1124-APS	Transporters and modulatory proteins, lipids and hormones
1067-APS	Transporters: transmitters, nutrients, metabolites and drugs
1058-APS	Ubiquitylation and Deubiquitylation of Ion Channels and Transporters (Hamilton/Balut)
1029-APS	Vascular pathobiology
1030-APS	Vascular smooth muscle
1047-APS	Vasomotor control: endothelium/smooth muscle/nerves
1233-APS	Water and electrolyte homeostasis: pathophysiology and physiology
1125-APS	Water and ion channels and modulatory proteins, lipids, and hormones
1009-APS	Wiggers Award Featured Topic (Webb)
