Department of Life Sciences, National Science and Technology Council

2022/07/27

Division	Field	Scope
Environment and Diversity of Biology and Agronomy	Plant Protection、Environmental Protection and Soil Science	The division focuses on basic and applied science of organisms and agriculture in relation to environments. The fields include agriculture hydrology, agriculture engineering, bio-material, biotechnology, soil and water conservation, soil and environment, forestry, conservation of natural resources, ecology, evolution, taxonomy, habitats and environments, global changes, plant medicine and pathology, agriculture safety and pest control.
	Forestry, Water Conservation、Bioenvironmental and Bio-industrial Engineering	
	Biodiversity	
Agricultural Resource	Agronomy、Horticulture and Agricultural Chemistry	The division focuses on non-human biological issues to promote the application values of agricultural resources. The fields include agricultural chemistry, agronomy, horticulture, forestry, fisheries, animal husbandry, veterinary medicine, laboratory animals and other disciplines. The research goals are to maintain and improve the quality and quantity of agricultural products and to increase the values of those products.
	Fishery、Aquaculture	
	Animal Science、Veterinary Medicine and Laboratory Animals	
Biological Sciences	Biology	The division focuses on research of scientific originality and novelty, and research with impacts on scientific advancement. This fields include the fundamental and interdisciplinary research using animals, plants or microorganisms as experimental models for the pursuit of new knowledge at the levels of molecular biology, biochemistry, genetics, cell biology, organ, organism, population, interaction with environment, bionics, etc.
	Biochemistry and Molecular Biology	

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Morphological Medicine and Physiology	Physiology	The division focuses on the biomedical researches from cells to organ systems related to homeostasis, adaptation, pathogenesis, repair, and regeneration to advance the understanding of structures and functions in animals and human body. The fields include basic medical research on the intrinsic and extrinsic environmental factors and stress, inherit and acquired genetic variations, and multi-organ interactions, etc, that impact the physiology and diseases. Translational and clinical medicine involving pathological diagnosis and therapeutics assessment are also included.
	Cell Biology and Anatomy	
	Pathology and Forensic Medicine	
Biochemistry and Pharmacology	Pharmacology and Toxicology	The division focuses on the animal models for the mechanisms, prevention, diagnosis, and treatment of human diseases. The fields include the regulation of growth and development, nucleus structure and function, mitochondrial function, apoptosis and aging, cell communication and signaling, cellular transportation, protein degradation and autophagy, protein structure, function, biochemistry, molecular biology, cell biology, pharmacology, toxicology, etc.
	Medical Biochemistry and Molecular Biology	
Microbiology、Immunology and Medical Laboratory	Microbiology and Immunology	The division focuses on the research from basic to clinical sciences by using microbiological and immunological approaches. The fields include the molecular immunoregulation/allergy/inflammation/d

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	Parasitology, Medical Technology, and Clinical Pathology	efense mechanisms of the infectious and immune-associated diseases, as well as disease pathogenesis, antibiotic resistance mechanisms, disease diagnosis and therapy, rational drug design and screening, antibody and vaccine development, microbiome, etc.
Pharmacy and Chinese Medicine	Pharmacy	The division focuses on the research and development of medicinal drugs and traditional Chinese medicine. The fields include natural products, herb medicines, medicinal chemistry, ethnopharmacology, indigenous medicines, pharmaceutics, biopharmaceutics, nanomedicine, pharmacology, toxicology, clinical pharmacy, pharmaco-omics, Chinese medicines, acupuncture, drug development, etc.
	Chinese Medicine	
Sciences of Food, Nutrition and Health	Food Science	The division focuses on the fundamental and application studies of raw materials, products and human health improving properties of foods. The fields include the sciences of composition, deterioration, processing, functionality enhancement, digestion, metabolism, and nutrition (non-drug) of foods.
	Nutrition and Health Sciences	
Public health and Social medicine	Public Health and Environmental Medicine	The division focuses on the risk factors of our local major diseases from the population perspective. The fields include the environmental lethal materials, family interaction, social networking, and

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	Psychiatry, Gerontology/Geriatrics, and Family Medicine	individual chronic disease and/or mental illness. The division applies epidemiology research design, environmental exposure detection, susceptible genetic determinants, social and family relationship analysis, comorbidity analysis, and innovative statistics analysis to understand those risk factors and propose possible solutions such as behavior change Intervention program, and translate them into health policy. The goals are to comprise public health, psychological and geriatric medicine, nursing and food safety, to apply each sub-discipline's expertise to resolve population issues as mentioned above and to promote for more inter sub-disciplines innovative research topics.
	Nursing	
	Food Safety	
Engineering Medicine	Medical Engineering、Orthopedics、Stem Cell	The division focuses on researches related to the medicine, engineering, biology, basic science, or any combination. The fields include biomaterials, biomechanics, biomedical electronics, engineering medicine, medical imaging, medical physics, radiobiology, cancer radiotherapy, nuclear medicine, orthopedics, dentistry, tissue engineering, stem cells, regeneration medicine, rehabilitation, physical therapy and occupational therapy.
	Dentistry	
	Radiology and Nuclear Medicine	
	Rehabilitation and Physical/occupational therapy	

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Digestive Medicine	Gastroenterology、 Hepatology	The division focuses on all the basic and clinical researches related to the internal and surgical medicine of the digestive organs (i.e. esophagus, stomach, small intestine, large intestine, liver, gallbladder, biliary tract, pancreas, and spleen). The fields include the inflammatory diseases of gastrointestinal tract, ulcer of gastrointestinal tract, microbiota, cholecystitis and cholelithiasis, acute and chronic hepatitis, liver cirrhosis, metabolic disorders of liver, pancreatitis, autoimmune related diseases, tumors, and endoscopic diagnosis and treatment, to investigate the pathogenesis, diagnosis, treatment and prevention by using the methods of the basic research, translation medicine, clinical practice and epidemiology.
	Gastrointestinal Surgery	
Cardiovascular Medicine	Cardiology	The division focuses on science targeting basic and clinical research of circulatory problems, such as myocardial infarction, cardiac arrhythmia, hypertension, atherosclerosis, varicose vein, and other cardiovascular diseases, and involving emergency management and critical care. The fields include basic, translational, clinical, or epidemiological approach and the scope covers pathophysiological mechanisms, diagnosis, treatment, and prevention.
	Cardiovascular Surgery	
Pulmonology	Chest	The division focuses on basic science and clinical research investigating the pathogenesis, diagnosis, treatment and prevention of diseases of respiratory systems. The fields include airway diseases, pulmonary infectious and

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	Chest Surgery	immunological diseases, sleep disorders, sepsis, respiratory failure, primary and metastatic lung neoplasm, esophageal and mediastinal neoplasm as well as clinical application of interventional bronchoscopy, lung transplantation, respiratory care and pulmonary rehabilitation.
Clinical Neurosciences	Neurology	This division focuses on the researches of the normal functions and diseased status of the nervous system by using genetic, molecular, and cellular to the system level approaches with multidisciplinary techniques including anatomy, physiology, pharmacology, bioinformatics, and epidemiology. The fields include neurodevelopmental anomaly, neurodegenerative diseases, stroke, drug abuse, etc.
	Neurosurgery	
	Anesthesiology	
Gynecology and Pediatric medicine	Obstetrics & Gynecology	The division focuses on women's disease and pediatric medicine. The fields include fertility, pregnancy, fetal development and birth, genetics, growth and development through infancy, childhood, adolescence, child individual organ related diseases, child and women cancer, and women's health and disease. The goals are to development of strategies that prevent fertility, maternal, infant, and childhood mortality and morbidity and contribute to the prevention and treatment strategies.
	Pediatric medicine	
Hemato-oncology, Immunology and Infection	Hematology	The division focuses on translational studies or reverse translational studies between mechanistic of the diseases and human studies for hematology/oncology, immunology/rheumatology, and infectious diseases. The fields include
	Oncology	

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	Immunology and Rheumatology	pathophysiology, diagnostics, therapeutics and prevention/control through genomics, epigenetics, proteomics, metabolomics, microbiomics, host-pathogen interaction, interaction between cell/microorganisms and microenvironment, clinical, or molecular epidemiology.
	Infectious Disease	
Renal Physiology & Nephrology、Urology、Endocrinology and Metabolism	Renal Physiology & Nephrology	The division focuses on supporting kidney, urinary, endocrine, and metabolic disease research. The fields include acute and chronic renal tubular nephritis, interstitial nephritis, vasculitis, acute kidney injury, chronic kidney disease; urinary system diseases, infectious diseases, stone disease, cancer, sexual dysfunction, diabetes mellitus, endocrine disease, and various metabolic and genetic diseases. The goals are to study on the disease occurrence, genetic research, etiology, diagnosis, treatment and preventive medicine from the perspective of basic, translational, clinical, or epidemiological researches.
	Urology	
	Metabolism and Endocrinology	
Sensory Organ Medicine	Ophthalmology	The division focuses on pathogenesis, diagnosis, prevention, treatment, rehabilitation and reconstruction researches from the basic, translational, clinical or epidemiological point of view. The fields include sensory organ, plastic surgery, breast surgery and other, such as eyes, ears, nose, throat, skin diseases, etc.
	Otolaryngology(ENT)	
	Dermatology	
	Plastic Surgery/ Breast Surgery	

Division	Field	Scope
Emerging areas		The division focuses on the applied, emerging or multidisciplinary research projects. In response to international trends of abolishing the use of animals for live tests, research proposals on animal experiment alternatives, such as computer simulations and model analysis, are encouraged.