

## ISC 2022 Late-Breaking Science Abstract Categories and Definitions

*Note: There may be some overlap of definitions/terms among categories. Please aim for topic specificity as much as possible.*

**Acute Nonendovascular Treatment:** Clinical trials of non-endovascular therapies in acute ischemic stroke, recanalization, neuroprotection, systemic thrombolytics, ultrasound therapy, side effects of acute therapy. Includes tPA and stem cells.

**Advanced Practice Providers and Therapists:** Topics specifically related to any and all Advanced Practice Providers and Therapists including advanced practice registered nurses, family nurse practitioners, physician assistants, speech therapists, occupational therapists, physical therapists.

**Aneurysms and Vascular Malformations:** Current understanding of unruptured aneurysms including genetics, screening, natural history, and treatment strategies. Current understanding of molecular biology and genetics; natural history and multidisciplinary management of vascular malformations including cavernous, arteriovenous malformations, and dural arteriovenous fistulae. Includes AVMs.

**Brain Health:** Basic, clinical, experimental and population-based investigations into relationships between stroke, cerebrovascular disease, stroke risk factors and both behavior and cognitive outcomes. Studies on the neuroimaging correlates and predictors of cognitive impairment, with particular, but not exclusive, emphasis on small vessel disease and vascular dementia.

### Cerebrovascular Manifestations of COVID-19

**Cerebrovascular Nursing:** Clinical and research topics in nursing across the continuum of care: emergency nursing, acute care, critical care, inpatient care, interventional neuroradiology nursing, neurosurgical nursing, rehabilitation, home health, community nursing, and stroke prevention. Topics may also include nursing role in stroke systems of care, telemedicine, quality of care, health delivery outcomes, stroke teams, stroke triage and nursing administration.

**Cerebrovascular Systems of Care:** Emergency department-based stroke care, including clinical trials initiated in the emergency department; EMS-based stroke care; stroke triage tools and systems; emergency nursing; telemedicine use in emergency stroke care; stroke systems of care; acute stroke teams; and geographic analysis of stroke care.

**Clinical Rehabilitation and Recovery:** Clinical aspects of rehabilitation and recovery post-stroke. Topics include clinically oriented studies of recovery mechanisms, treatments to enhance recovery, rehabilitative therapies, post-stroke outcome studies, post-acute care in the rehabilitation and community settings. May involve any rehabilitation discipline, such as neuroscience, medical rehabilitation, psychology, social work, physical therapy, occupational therapy, speech therapy, recreational therapy, and related disciplines.

**Health Services, Quality Improvement, and Patient-Centered Outcomes:** Health services research, health care delivery, clinical outcomes assessment tools, quality of life, organization of care, process of care, T2 (bedside-to-community) translation, implementation science, effectiveness, quality of care, practice variation, provider perceptions, patient/caregiver preferences and values, economic analyses, qualitative studies, clinical decision-making. *Note: This category does not include animal model studies.*

**Imaging:** Brain or vascular imaging (MRI, CT, perfusion imaging, ischemic penumbra imaging, ultrasound) for acute therapeutic decision making, technological advances in acute imaging, imaging as a patient selection, and surrogate outcome tool for acute stroke trials.

**In-Hospital Care; from the ICU to Discharge:** Patient care and management issues beginning at the time of in-patient admission and continue through discharge from the acute hospital setting. The focus is on management issues commonly encountered by in-patients, including blood pressure control, management of serum blood glucose, in-hospital stroke and deterioration, intensive care management and transition to discharge.

**Intracerebral Hemorrhage:** Intracerebral hemorrhage, hypertensive hemorrhage, cerebral amyloid angiopathy, other hemorrhage-related vasculopathies. Neuroimaging of acute and chronic intracerebral hemorrhage. Animal models and other basic research on intracerebral hemorrhage. Clinical trials in treatment or prevention of intracerebral hemorrhage as well as other neurocritical care issues in intracerebral hemorrhage.

**Neuroendovascular:** Clinical trials of endovascular therapy in acute ischemic stroke, recanalization, intra-arterial thrombolytics, mechanical recanalization devices. Patient care, management issues, translational research, and clinical

studies examining the pathophysiology and management of subarachnoid hemorrhage and cerebral vasospasm. The focus is on the medical, endovascular management of patients encountered in the acute emergency and in-hospital setting.

**Non-Acute Large Vessel Disease from Veins to Arteries:** Natural history, epidemiology, pathophysiology, and treatment of extracranial or intracranial cerebrovascular occlusive disease, atherosclerotic or non-atherosclerotic. Carotid artery stenting, carotid endarterectomy, external-internal bypass, reversible cognitive impairment with carotid artery disease. Genetics, diagnosis, imaging, medical/surgical/endovascular/novel therapies, clinical trials, novel therapies, prognosis, outcomes as well as other neurocritical care issues in malignant hemispheric stroke.

**Pediatric Cerebrovascular Disease:** Cerebrovascular diseases affecting children of all ages, from the newborn through age 18 years, including arterial ischemic stroke, cerebral sinovenous thrombosis, spontaneous intracranial hemorrhage, and primary cerebrovascular diseases associated with a high risk of stroke such as moya moya syndrome, cerebral vasculopathies related to hemoglobinopathies and cerebral vascular malformations.

**Risk Factors and Prevention:** Epidemiology, incidence, prevalence, cohort studies, population assessments, time trends, projections, risk factors, risk markers, genetics, community screening and education including SOCIO-demographic characteristics, lifestyle practices, community support, and traditional and non-traditional risk factors for vascular disease, meta-analyses of observational studies. Diagnostic evaluation of stroke pathogenesis, including clinical assessment, EKG, echocardiography, EEG, neuroimaging, ultrasonography, biomarkers, and novel tests. Modification of novel and traditional stroke risk factors including biomarkers; drug, device and lifestyle interventions to prevent first or recurrent stroke; therapies to reduce major vascular events (myocardial infarction, death from vascular causes) after an index stroke; observational studies; single clinical trials; meta-analyses of clinical trials. *Note: Imaging is a separate category described above.*

**Translational Basic Science:** Preclinical molecular, cellular, and systems level neuroscience of recovery and restoration after stroke. Topics include regeneration, cell replacement, progenitor cells, genetics of recovery, animal models of recovery, cerebral blood flow, neuroplasticity and functional recovery (somatic, motor and cognitive). Pre-clinical models of cerebral ischemia include rodents and large animal models, cell culture, neuronal, glia and white matter in vitro models of cerebral ischemia (oxygen-glucose deprivation). This theme also includes studies dealing with the biology of all segments of the cerebral circulation including cerebral arteries, pial vessels, and the neurovascular unit; biology of endothelial cells, pericytes vascular muscle, and the blood-brain barrier; biological effects of risk factors for vascular disease and thrombosis as well as the impact of stroke on the vasculature; mechanisms that regulate cerebral blood flow, angiogenesis, and remodeling of the neurovascular unit under normal or pathological conditions. Basic translational studies of aged- or vascular-related cognitive decline that includes animal models.