

S15-Brain Banking in China-Progress and Research Updates (Yan Xiaoxin)

Banking the Brain and Blood: A Sri Lankan Emerging Era of Collaborative Research

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Introduction: Brain and biomolecular resource bank established at the University of Sri Jayewardenepura, Sri Lanka, is one of the largest biobanks in the South Asian region. Cultural and religious practices in Sri Lanka facilitate obtaining abundance of postmortem human fetal and adult brain tissue as donations. **Objectives:** Aim is to facilitate the access of biological resources and support high-quality innovative medical research in elucidating of their underlying disease mechanisms, which has the potential to identify rational therapeutic targets/ new drugs and diagnostic assays. **Method:** Anatomico-phathological studies performed in cerebral arteries of 447 adult and 34 fetal postmortem brains and gene expression studies in 6 cerebral arteries. Screening for neurodegenerative and cerebrovascular pathologies using immuohistopathological techniques and for selective candidate genes using molecular genetic techniques carried out in 76 human aging brain samples. A bio-repository of DNA bank established with socio-demographic, food habits, environmental conditions and clinical data of over 1500 patients and controls with stroke, neurodegenerative and neuromuscular diseases. **Results:** Will be discussing how biobank could offer insight into embryology, stroke, suicide, early and late stages of pathological

process of aging and neurodegenerative diseases. **Conclusion:** Establishing an Asian biobank network would facilitate in the identification of candidate genes, therapeutic targets, dietary and environmental variants in the variation and susceptibility in neurological diseases across Asian populations.