

HKIAS Distinguished Lecture Series on Life Sciences

Acute Ischemic Stroke: Why Don't We Have Better Treatments?

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Due to concerns about the coronavirus outbreak, there will be no registration and on-site audience for the event. Video and PowerPoint of the lecture will be posted on the HKIAS website at www.hkias.cityu.edu.hk on 4 May 2020 (Monday).



Abstract

The human brain is a greedy organ! It constitutes only 2% of the body by weight but receives ~15% of resting blood flow and accounts for ~20% and 50%, respectively, of total resting oxygen and glucose consumption. Because of its high metabolic demands, the human brain is quickly damaged when normal blood flow is impaired. Ischemic stroke is the neurological condition that results. According to the World Health Organization, "ischemic heart disease and stroke are the world's biggest killers, accounting for a combined 15.2 million deaths in 2016". Moreover, survivors of stroke are often severely impaired leading to a heavy burden of human suffering. Intensive animal research on the cellular pathophysiology of ischemic stroke led to the development of promising 'neuroprotective' drugs that were highly beneficial in animal stroke models. Tragically, none of these drugs have worked in human trials. I will talk about what went wrong. I will also preview current research that offers hope for the development of neuroprotective drugs in the future. The stakes are high, and we must succeed in these efforts.

Biography

Bruce Ransom is the Acting Head and Chair Professor of the Neuroscience Department of CityU. He earned his bachelor's degree from the University of Minnesota and his M.D. and Ph.D. (neurophysiology) degrees from Washington University in St. Louis, Missouri (1972). After a postdoctoral period at the NIH, he trained in Neurology at Stanford University. He had subsequent Neurology Department faculty appointments at Stanford (1979-1987) and Yale (1987-1995) before becoming the founding Chair of the Neurology Department at the University of Washington in Seattle in 1995. He is a fellow of the American Academy of Neurology, and past president of the Association of University Professors of Neurology. He is founder (1988) and co-Editor-in-Chief of the journal *GLIA* (Wiley), and co-author of two edited books, including three editions of the textbook, *Neuroglia* (Oxford). His honors include many named lectureships, the Javits Neuroscience Investigator Award and the Alexander von Humboldt Research award. His research primarily focuses on glia cell physiology and function, and on the cellular mechanisms of brain injury due to stroke.

