

Selective Brain Cooling with Intracarotid Cold Saline Infusion for Acute Ischemic Stroke Treatment: From Mathematical Modeling to Clinical Application

Presented by: **Angelos Konstas**, MD, PhD, Neurointerventional Radiologist, Huntington Memorial Hospital

TUESDAY, MARCH 28, 2017
4:00 – 5:00 P.M.

WHERE: Research Conference Center, 734 Fairmount Avenue, Pasadena, CA 91105

ABOUT THE TALK: In his talk, Dr. Konstas will discuss the following:

1. Review of Therapeutic Hypothermia
 - Methods for inducing hypothermia
 - Mechanisms of neuroprotection
 - Hypothermia in (cardiac arrest, perinatal asphyxia), ischemic stroke
2. Heat Transfer Model of Intracarotid Cold Saline Infusion
 - Concept and aims
 - Building up the model
 - Results and implications
3. Human Data
 - Pilot feasibility study
 - Human data fitted with an integrated mathematical model

TARGET AUDIENCE: Physicians (neurologists, ED physicians, intensivists, etc.), and scientists (biomedical engineers, physicists, etc.), and anyone interested in stroke and basic and translational research.



ABOUT THE SPEAKER:

Dr. Konstas received his MD and PhD from the University of Oxford, UK. In 2011, he completed a Diagnostic Radiology Residency at Massachusetts General Hospital of Harvard Medical School in Boston, Massachusetts. In addition to his medical training, he was a research scientist in interventional neuroradiology at Columbia University Medical Center, NY. He has published 35 peer-reviewed studies. His research focus is in acute stroke intervention. In 2015, he joined Huntington Memorial Hospital as a neurointerventional radiologist. Together, with Dr. Ian Ross, he established a 24/7 Endovascular Stroke Center at Huntington Memorial Hospital, where they treat acute ischemic stroke patients by performing emergent mechanical cerebral thrombectomies (minimally invasive clot-retrieval procedures from brain arteries of stroke patients).

LEARNING OBJECTIVES:

Understand the role of hypothermia as a potential neuroprotector

Understand the challenges in inducing and maintaining brain cooling in acute stroke patients

Understand potential of selective brain cooling in acute stroke: Mathematical modeling and possible clinical application

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Institute for Medical Quality/California Medical Association (IMQ/CMA) through the joint providership of Huntington Hospital and Huntington Medical Research Institutes. The Huntington Hospital is accredited by the IMQ/CMA to provide continuing medical education for physicians."

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