

**BHE-041**

**Computational Fluid Dynamics Analysis of Novel, Interventional Catheters**

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**Abstract**

Stroke is the 3<sup>rd</sup> leading cause of death in the U.S. every year. Nearly 80% of reported stroke cases are ischemic in nature, meaning that a blockage prevents blood from reaching neurological tissue. The current and only approved treatment regime for ischemic stroke is the intravenous delivery of tissue plasminogen activator (tPA), preferentially within 3 hours of the ischemic episode. If treatment does not occur within the three hour window, morbidity rates increase dramatically. It is desirable for clinicians to have at their disposal other forms of treatment. The feasibility of alternative treatments is the subject of this research proposal.