# **Special Issue**

# Advances in Cerebral Aneurysm Surgery: The Latest Technologies and Techniques

## Message from the Guest Editor

Cerebral aneurysms are treated by reconstructive and deconstructive techniques. To remain among a first-line treatment option, the therapeutic procedure of microneurosurgical aneurysm clipping requires permanent refinements, including technical advances in operation planning and simulation, improvements in intraoperative monitoring and imaging, microneurosurgical high-end wet-lab trainings, and the mastering of cerebral bypass surgery as a firstline treatment as well as a bail-out procedure. Hybrid neurovascular surgery in expert hands is a promising strategy and will enhance patient safety by merging surgical and endovascular techniques in one procedure. Aneurysm rupture analysis using fluid structure interactions in vivo, in vitro, and in virtual simulations will add to our understanding of which aneurysms require active surgical treatment. The scope of this Special Issue is therefore the discussion of current and future strategies to improve procedural safety, angiographic results, and clinical outcomes in patients suffering from both ruptured and unruptured cerebral aneurysms.

### **Guest Editor**

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#### Editor-in-Chief

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