

Special Issue on Cardioprotection during Adult and Pediatric Open Heart Surgery

Call for Papers

Myocardial reperfusion damage following cardioplegic ischemic arrest is a key determinant of postoperative organ functional recovery, morbidity, and mortality in adult and pediatric patients undergoing open heart surgery. Despite recent advances in the design of cardioprotective strategies, the arrested heart still sustains significant injury. This is largely due to the fact that cardioprotective strategies do not take into account differences in pathology or age. Vulnerability of the diseased heart to ischemia and reperfusion is different for different pathologies or associated pathologies (e.g., coronary disease, hypertrophy, diabetes, etc.) and different age (neonate, infant, children, and adult). Additionally, the roles of triggers and mediators of cardiac cellular death for each pathology/age are not fully understood. This is important in order to design appropriate/optimal protective techniques. Ongoing strategies for myocardial protection include the inclusion of various additives that aim at reducing the damaging effects of ischemia and reperfusion (e.g., calcium overload, metabolic derangement, and accumulation of reactive oxygen species). Recent and novel strategies have also included gene and cell therapies.

We invite investigators to contribute original research articles and review articles that will address any of these issues. Potential topics include, but are not limited to:

- Novel interventions in man or in clinically relevant experimental models
- Molecular and cellular changes during cardiac insults which can be targeted for cardioprotection
- New technologies or methods to study cardiac injury and to identify cardioprotective targets

Before submission authors should carefully read over the journal's Author Guidelines, which are located at <http://www.hindawi.com/journals/bmri/guidelines/>. Prospective authors should submit an electronic copy of their complete manuscript through the journal Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/surgery/capo/> according to the following timetable:

Manuscript Due	Friday, 25 July 2014
First Round of Reviews	Friday, 17 October 2014
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