



BioMed Research International

Special Issue on
**Atrial Fibrillation: Biophysics, Molecular
Mechanisms, and Novel Therapies**

CALL FOR PAPERS

Atrial fibrillation is the most common arrhythmia and is associated with increased morbidity and mortality. The incidences of atrial fibrillation are expected to continue to rise with the aging of the population. Research over the past decades has identified a multitude of pathophysiological processes contributing to the initiation, maintenance, and progression of atrial fibrillation. Ultimately, a comprehensive understanding of AF pathophysiology is needed to foster the development of improved diagnostic, pharmacological, and nonpharmacological therapeutic approaches and to greatly improve clinical management. This special issue aims to capture the most recent advances in the study of atrial fibrillation.

We invite investigators to contribute original research articles as well as review articles that will stimulate efforts to understand the molecular pathology underlying atrial arrhythmogenesis, development of novel strategies to treat these conditions, and the evaluation of outcomes. We are interested in articles that explore aspects of antiarrhythmic therapy in humans and also in animal models.

Potential topics include, but are not limited to:

- ▶ Cellular electrophysiology and molecular mechanisms of atrial fibrillation initiation, progression, and maintenance
- ▶ Role of autonomic nervous system in atrial fibrillation
- ▶ Atrial fibrosis and fibrillation: basic and clinical investigation
- ▶ Pacemaker abnormalities and atrial fibrillation
- ▶ Computational modeling of basic mechanism of atrial fibrillation
- ▶ Identifying risk factors for atrial fibrillation
- ▶ Development and testing of novel antiarrhythmic drugs
- ▶ Device-based therapies for atrial fibrillation treatment: now and in the future
- ▶ Latest technologies for clinical evaluation and measuring outcomes
- ▶ Alternative therapies for atrial fibrillation treatment
- ▶ Prognostic impact of atrial fibrillation on clinical outcomes
- ▶ Atrial fibrillation mapping and ablation

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/bmri/cardiology/afib/>.

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