

**Name of Journal:** *World Journal of Cardiology*

**Manuscript NO:** 52295

**Manuscript Type:** REVIEW

**Do age-associated changes of voltage-gated sodium channel isoforms expressed in the mammalian heart predispose the elderly to atrial fibrillation?**

Isaac E *et al.* Role of sodium channels in atrial fibrillation

Emmanuel Isaac, Stephanie M Cooper, Sandra A Jones, Mahmoud Loubani

### **Abstract**

Atrial fibrillation (AF) is the most common cardiac arrhythmia worldwide. The prevalence of the disease increases with age, strongly implying an age-related

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However, conflicting results regarding the sodium channel subtypes in the heart have been reported. For example, some investigators found that Na V 1.8 channels significantly contributed to cardiac I<sub>NaL</sub>, whereas others reported that the Na V 1.8 channel was expressed in intracardiac neurons, but not in cardiac myocytes.

## Voltage-gated sodium channels and pain-related disorders





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## Voltage-gated sodium channels and pain-related disorders

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The voltage-gated **sodium channel** Na(v)1.8 is known to function in the transmission of pain signals induced by cold, heat, and mechanical stimuli. Sequence variants of human Na(v)1.8 have been ...

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