

Mechanisms of action of atrial-specific anti-arrhythmic drugs

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Propositions to accompany the thesis

Mechanisms of Action of Atrial-Specific Anti-Arrhythmic Drugs

Vladimír Sobota

1. Pharmacological inhibition of the atrial-specific currents $I_{K_{ACh}}$ and I_{SK} can terminate persistent AF without inducing ventricular arrhythmias. (this thesis)
2. $I_{K_{ACh}}$ inhibition by XAF-1407 has more pronounced effects in electrically remodeled atria than in normal atria. (this thesis)
3. The I_{SK} inhibitor AP14145 shows class III as well as class I anti-arrhythmic properties. (this thesis)
4. Cardioversion of AF requires inter-atrial synchronization and increased spatiotemporal organization of atrial conduction. (this thesis)
5. Atrial repolarization during AF shows wave-like propagating behavior with a pattern that resembles previous activation, favoring 'linking' of fibrillation waves. (this thesis)
6. Mapping techniques are essential for providing insights into the mechanisms that perpetuate AF, as well as into the processes that precede AF termination.
7. Understanding the mechanisms of AF maintenance and termination is essential for development of effective anti-arrhythmic drugs.
8. In research, proceed as a caterpillar, not as a kangaroo. (Sander Verheule)
9. All things are difficult before they are easy. (Thomas Fuller)
10. Nothing in life is to be feared, it is only to be understood. (Marie Skłodowska Curie)