

Isoproterenol-Induced Arrhythmias (KRANIAS LABORATORY):

1. Anesthetized mice by using 2.5% Avertin or other anesthetic agent in the animal protocol of the lab.
2. An equivalent of lead I ECG recording (PowerLab; AD Instruments) is performed.
3. After stabilization of the preparation, baseline or control ECG is recorded for 5 minutes.
4. Follow by simultaneous intraperitoneal injection of caffeine (20mg/kg body weight) and isoproterenol (2mg/kg body weight)
5. Subsequent recording period of 20 minutes.
6. Analyze the tracing for ISO-induced arrhythmias.
7. Mice allowed to recover.

CaMKII Inhibition

- Injected intraperitoneally 20 $\mu\text{mol/kg/body weight}$ KN-93 or its inactive analogue KN-92, about 10 minutes before caffeine/isoproterenol application under continuous ECG recording.
- Then, inject caffeine and isoproterenol as outlined above
- Record ECGs for 10-20 minutes
- Analyze for presence/absence of arrhythmias.