**Supplemental Figures**

**Differential effects of anesthetics and sex on supraventricular electrophysiology and atrial fibrillation substrate in rats**

Michael Murninkas 1,2**\***, Or Levi 1,2**\***, SigalElyagon 1,2, Aviv Komissar1,2, Neta Marom1,2 Alon Naumchik 1,2, Noan Dalal1,2, Gideon Gradwohl 3, Yoram Etzion 1, 2

**Affiliations:**

1 Cardiac Arrhythmia Research Laboratory, Department of Physiology and Cell Biology, Faculty of Health Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel.

2 Regenerative Medicine & Stem Cell Research Center, Ben-Gurion University of the Negev, Beer-Sheva, Israel.

3 Medical Engineering Unit. The Jerusalem College of Technology, Jerusalem, Israel.

\* Equal Contribution

****

**Figure 1S. AV 2:1 block is prolonged by both ISO and PEN in both sexes. A**: Comparison of AV 2:1 block under UAS, ISO and PEN, stratified by sex. Note prolongation by both ISO and PEN relative to UAS in both males and females. **B**: Comparison between males and females. D change of AV 2:1 block relative to UAS under ISO and PEN conditions. Statistical analysis: A: Friedman and Dunn’s multiple comparisons. B: Mann-Whitney test.

****

**Figure 2S. AERP analysis for various basic CLs. A**: Comparison of AERP obtained with 100 ms basic CL under UAS, ISO and PEN, stratified by sex. **B**: Comparison between males and females. D change of AERP obtained with 100 ms basic CL relative to UAS under ISO and PEN conditions. **C-D**: Similar representation as in A-B but for 70 ms basic CL. Similar data for 120 ms basic CL are presented in Figure 3 E-F in the paper.

****

**Figure 3S. AVERP analysis for various basic CLs. A**: Comparison of AVERP obtained with 100 ms basic CL under UAS, ISO and PEN, stratified by sex. **B**: Comparison between males and females. D change of AVERP obtained with 100 ms basic CL relative to UAS under ISO and PEN conditions. **C-D**: Similar representation as in A-B but for 110 ms basic CL. **E-F**: Similar representation as in A-B but for 130 ms basic CL. Similar data for 120 ms basic CL are presented in Figure 4 C-D in the paper.



**Figure 4S ISO increases the induction of regular atrial arrhythmias in males only. A**: Comparison of regular atrial arrhythmia induction (%) under UAS, ISO and PEN, stratified by sex. **B**: Comparison between males and females. D change of regular atrial arrhythmia induction (%) relative to UAS under ISO and PEN conditions. **C-D**: Similar representation as in A-B but for AF duration. Statistical analysis: A, C: Friedman and Dunn’s multiple comparisons. B, D: Mann-Whitney test. For clarity, 2 data points in C and 2 in D are out of scale and are not represented.