

Supplementary material

In vivo Evaluation of Physiological Control Algorithms for LVADs based on Left Ventricular Volume or Pressure

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Running Title: Physiological controllers in vivo

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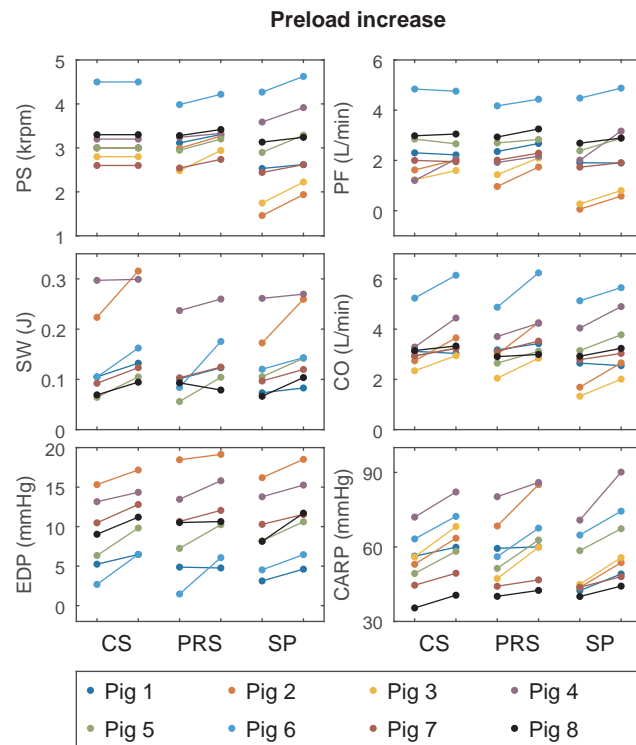


Figure S1: Hemodynamic changes during the preload increase experiment for Block A and all eight pigs.

Each panel shows the change of one signal for the constant speed (CS) mode on the left-hand side, the PRS controller in the middle, and the SP controller on the right-hand side. The figure shows six signals, the pump speed (PS), the pump flow (PF), the stroke work (SW), the cardiac output (CO), the end-diastolic pressure (EDP), and the carotid arterial pressure (CARP).

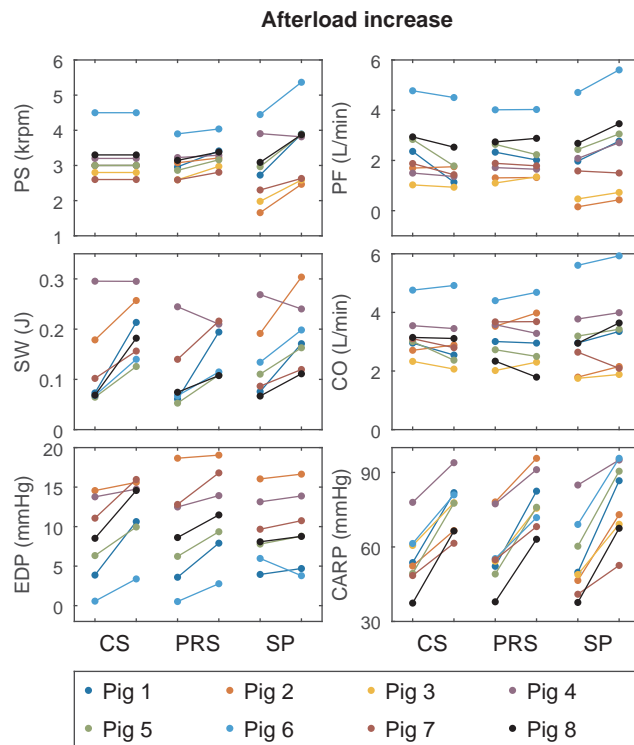


Figure S2: Hemodynamic changes during the afterload increase experiment for Block A and all eight pigs. Each panel shows the change of one signal for the constant speed (CS) mode on the left-hand side, the PRS controller in the middle, and the SP controller on the right-hand side. The figure shows six signals, the pump speed (PS), the pump flow (PF), the stroke work (SW), the cardiac output (CO), the end-diastolic pressure (EDP), and the carotid arterial pressure (CARP).