

1. Appendix

2. Novel Sensor-Enabled *Ex-Vivo* Bioreactor-A New Approach towards Physiological Parameters and Porcine Artery Viability

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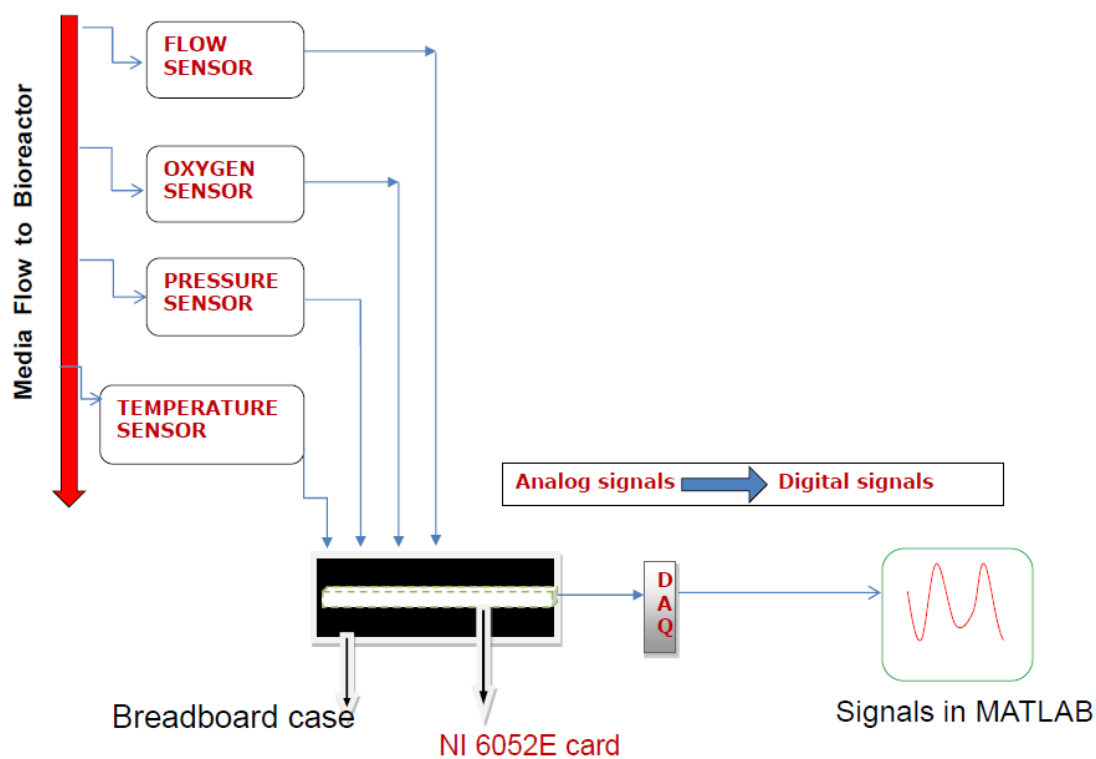
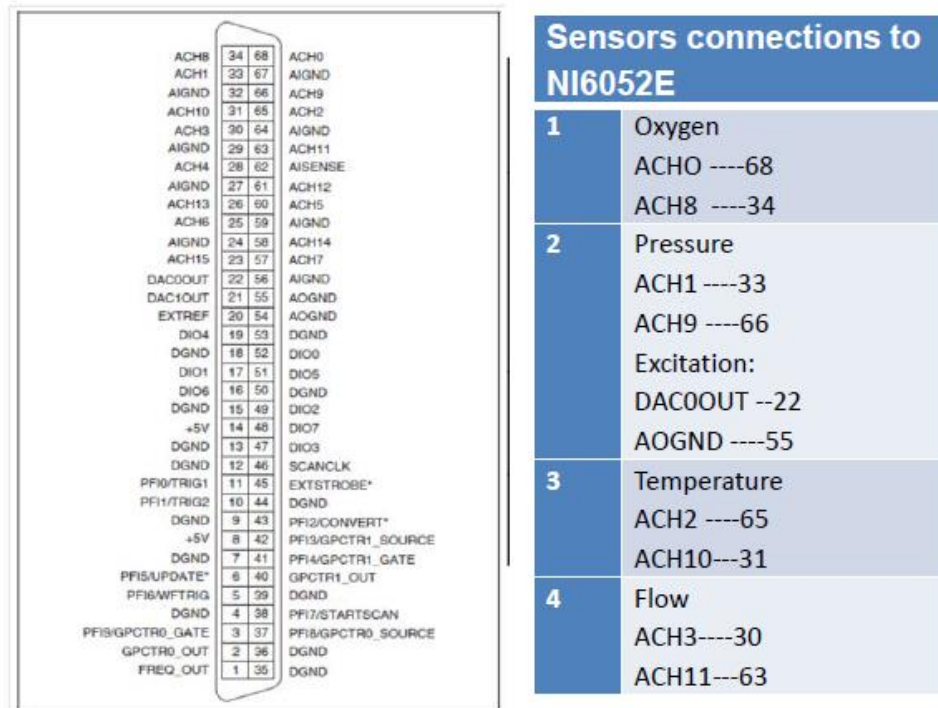


Figure S1: Flow diagram for sensors connection to data acquisition card (DAQ).



Sensors connections to NI6052E	
1	Oxygen ACH0 ----68 ACH8 ----34
2	Pressure ACH1 ----33 ACH9 ----66 Excitation: DAC0OUT --22 AOGND ----55
3	Temperature ACH2 ----65 ACH10----31
4	Flow ACH3----30 ACH11---63

Figure S2: I/O connector pin assignment and sensors connections to the NI6052E card.

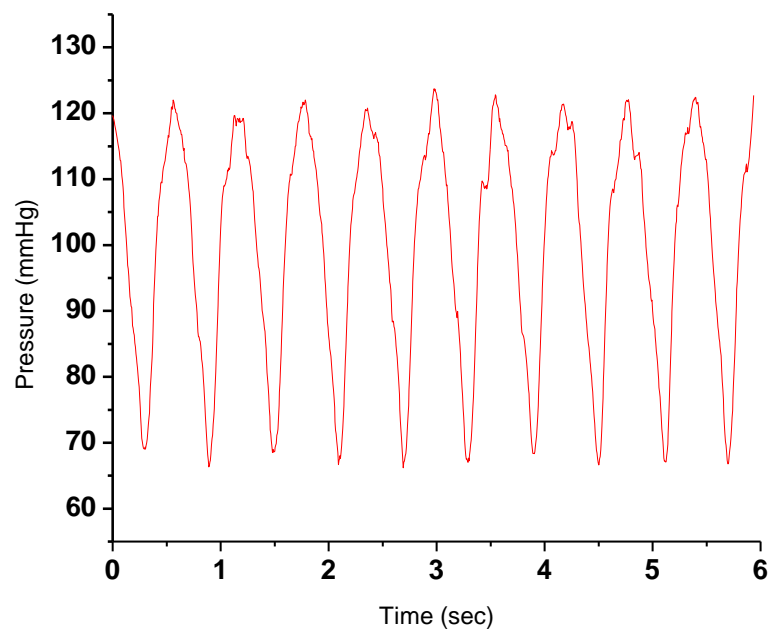
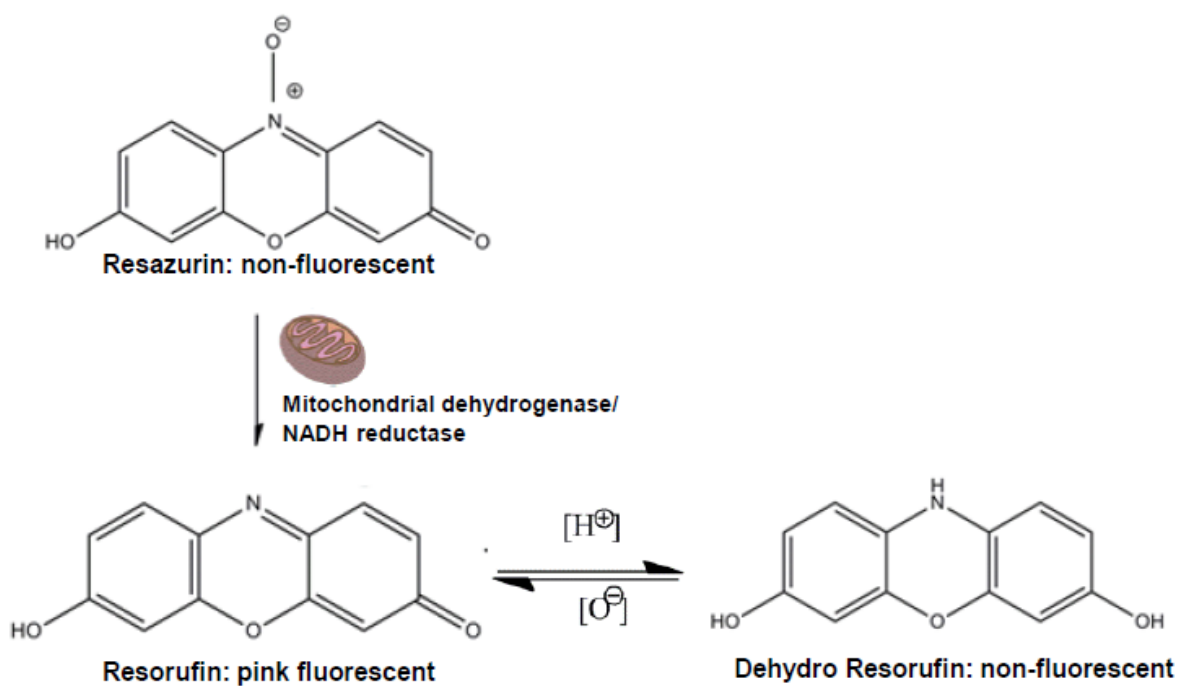


Figure S3: Pressure wave forms generated in the sensor-enabled online *ex-vivo* bioreactor.



5. **Figure S4:** Schematic showing conversion of resazurin to fluorescent resorufin.