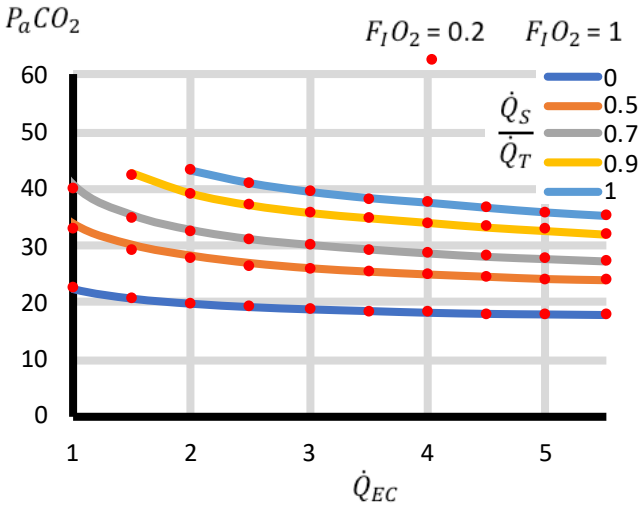


**Supplementary Figure 4. Effect of $F_IO_2$ on $P_aCO_2$.**

*Lines show the $P_aCO_2$ at each shunt fraction, for $F_IO_2$ of 1. Red markers show the $P_aCO_2$ at the corresponding shunt fraction, for $F_IO_2$ of 0.2. Missing values are for data that is physiologically impossible ($C_{\bar{V}}O_2$ of < 0 would be required), which is more likely when $F_IO_2$ is low, $\frac{\dot{Q}_S}{\dot{Q}_T}$ is high, and $\dot{Q}_{EC}$ is low. At any given value of $\dot{Q}_{EC}$ and shunt fraction, the maximum difference in $P_aCO_2$ between $F_IO_2$ of 1 and at $F_IO_2$ of 0.2 was 1.3 mm Hg, providing both data points were physiologically tenable.*