Mock Circulatory Loop (MCL) Repeatability Testing

Please refer to instructions outlined in *D'Souza et al., JBME, 2024 (sub-section: MCL Repeatability Testing)* and *Contarino et al., ASAIO Journal, 2023* along with detailed steps outlined below for conducting the MCL Repeatability Testing.

Note: MCL Repeatability Testing may be conducted using one of the Recommended Test Conditions (e.g., Cardiogenic Shock) in D'Souza et al., JBME, 2024.

1. Set up and initialize the MCL by executing steps 1-19 in document, 'Mock Circulatory Loop (MCL) Simulations of the Target Test Conditions'.
   Note: During MCL Initialization, note down the volume of BAF required to initially fill the loop.
2. Record the BAF volume used for MCL Initialization. This is the initial BAF volume.
3. Reference the MCL Control Table (step 20 in document, 'Mock Circulatory Loop (MCL) Simulations of the Target Test Conditions') for setting input controls corresponding to the selected test condition for MCL repeatability testing.
4. Execute steps 21-26 in document, 'Mock Circulatory Loop (MCL) Simulations of the Target Test Conditions'.
   Note: When adding or removing BAF from the loop to achieve the target fluid levels, note down the net volume of BAF added or removed from the initial BAF volume.
   The completion of this step defines the baseline state of the MCL.
5. Record the volume of the BAF in the loop as the baseline BAF volume.
6. Execute steps 21-26 in document, 'Mock Circulatory Loop (MCL) Simulations of the Target Test Conditions'.
   This concludes replicate (or trial) test #1 of the 10 replicate tests.
7. Repeat steps 1-6 above nine times to complete the 10 replicate tests. It is important to ensure that the same baseline BAF volume and input control settings are used for each test.