

Supplemental Figure 2

The screenshot displays the PumpControl v1.5.4 software interface, divided into two main sections: Manual Control and Automatic Control.

**Manual Control Panel:**

- Pressure Overview:** Shows Target pressure at 40.00 mbar and Current pressure at 40.00 mbar. A pressure gauge below indicates the current pressure level. A red arrow points to the 'ON' indicator for the pressure control.
- Valves Overview:** Shows four valves (1, 2, 3, 4) with their respective states and switching mechanisms. A red arrow points to the 'ON' indicator for the pressure control.
- Pressure Diagram:** A tab for visualizing pressure changes over time.

**Automatic Control Panel:**

- EXPERIMENT IS RUNNING:** A green status bar with a folder icon, a save icon, and a stop icon.
- Performing pre run! Please wait...:** A central message with a red arrow pointing to it.
- Fluidic Unit Setup:** A tab with a red arrow pointing to the 'Pressure' field (40.0 [mbar]).
- Flow Parameters:** A tab showing Shear stress (14.98 [dyn/cm<sup>2</sup>]) and Shear rate (2140 [1/s]).
- Advanced:** A tab with Cycle duration (00:00:01:00) and an 'infinite' checkbox.
- Switching times:** A section for unidirectional (10.00 [s]) and oscillating (0.50 [s]) switching times, with checkboxes for P1, P2, P3, and P4.
- invert pressure:** A section with a minus sign, a plus sign, and a blue circle.
- Next cycle:** A section with an information icon (i).
- Experiment Details:** Shows '50cm, ID 1.6mm', 'µ-Slide I (0.4mm)', 'Start 15:10:08 / 15.07.2019', 'Viscosity 0.007', 'Calibr. factor 1.13', and 'End 15:10:08 / 14.07.2020'.