

Supplemental Figure 1

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 0.00 mbar and Current pressure at -0.00 mbar. A pressure gauge below ranges from -100 to 100 mbar.
- Pressure Control:** Includes a toggle switch for Pressure (OFF/ON) and a Stop pump button.
- Valves Overview:** Features a Valve state section with four valves (1-4) and a Pressure Diagram section with a switching all valves button.

Automatic Control Panel:

- WELCOME:** Includes a folder icon, a save icon, and play/pause buttons.
- Displayed cycle 1 of 1:** Shows navigation arrows and cycle information.
- Fluidic Unit Setup:** Contains dropdown menus for Perfusion set selection (50cm, ID 1.6mm) and Slide selection (µ-Slide I 0.4 Luer).
- Flow Parameters:** Includes a Viscosity input (0.007 [(dyn* s)/cm²]) and a Current calibration factor input (1.13).
- Advanced:** Features a Recalibration factor... button, an Apply new settings button, and a status indicator (not applied/applied).
- invert pressure:** A toggle switch with minus and plus symbols.
- Next cycle:** A text input field.
- Summary Table:**

50cm, ID 1.6mm	µ-Slide I (0.4mm)	Start	15:01:06 / 15.07.2019
Viscosity 0.007	Calibr. factor 1.13	End	15:01:06 / 14.07.2020

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