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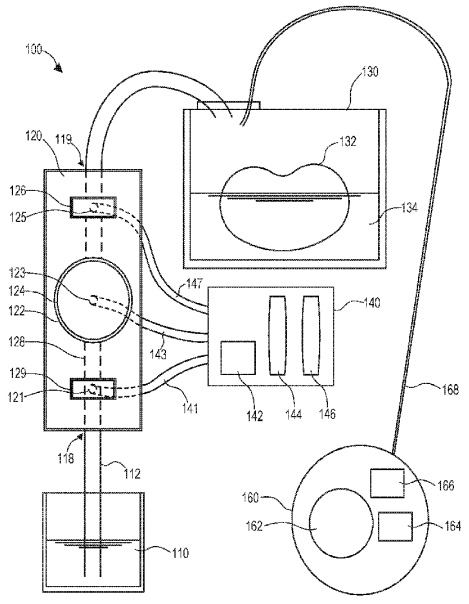


FIG. 1

(57) Abstract: Provided herein are perfusion systems (*e.g.*, a perfusion system with a an acoustic volume sensor) that deliver a composition comprising at least one agent that induces expression of OCT3/4, SOX2, c-MYC, KLF4, NANOG, and/or LIN28 in an organ (*e.g.*, a kidney, a liver, a. heart, a lung, a pancreas). Also provided herein are methods and compositions suitable for use with the perfusion systems.

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