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(54) Title: METHOD AND APPARATUS FOR HIGH THROUGHPUT HIGH EFFICIENCY TRANSFECTION OF CELLS

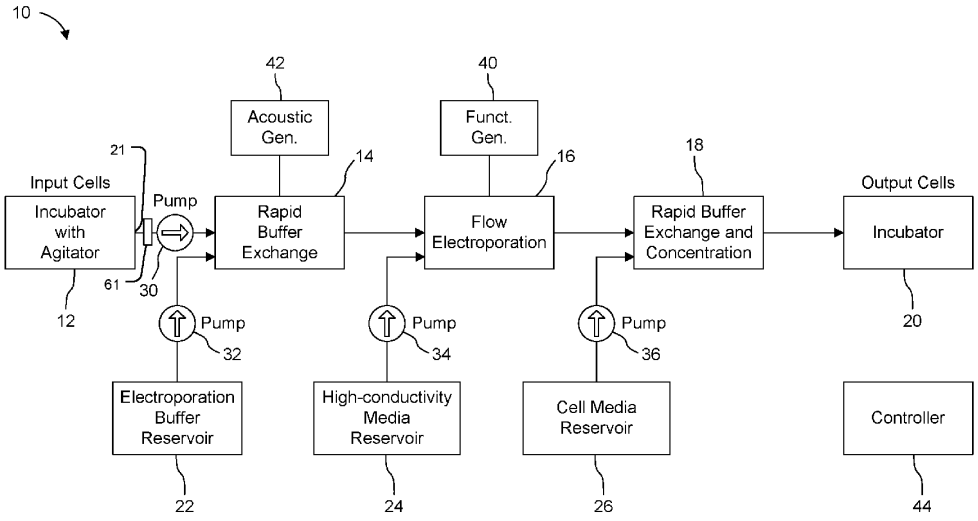

FIG. 1

(57) Abstract: Transfer of genetic and other materials to cells is conducted in a hands-free, automated, high throughput, continuous process. A system using a microfluidic hydrodynamic sheath flow configuration includes arrangements for pushing cells from side streams containing a cell culture medium to a central stream containing an electroporation buffer. Electroporation can be conducted in an assembly in which two or more microfluidic channels are provided in a parallel configuration and in which various layers can be stacked together to form a laminate type structure.

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