DEVICE, SYSTEM AND METHOD FOR INTRACELLULAR DELIVERY OF SUBSTANCES

ABSTRACT

The invention relates to an attachment configured to detachably couple to a fluid extruding device, the attachment comprising: a membrane having a plurality of pores configured to allow a cell to pass through while inducing a mechanical stress to the cell such that the introduction of one or more substances into the cell is facilitated; and an engaging member for coupling to the outlet of the fluid extruding device such that the membrane is in fluid communication with the outlet of the fluid extruding device, wherein the fluid extruding device is configured to extrude fluid via mechanical actuation. The fluid extruding device may include a pipette, micropipette, burette, syringe or liquid handling system. The pores of said membrane are preferably linear through the membrane and have an average pore diameter of 40% to 70% of the average diameter of the cell. The invention further includes methods of introducing substances into a cell, a fluid extruding device and a system thereof.

Fig. 8