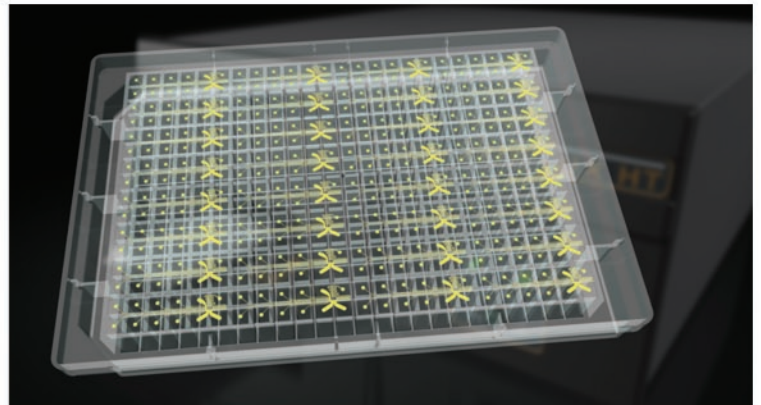
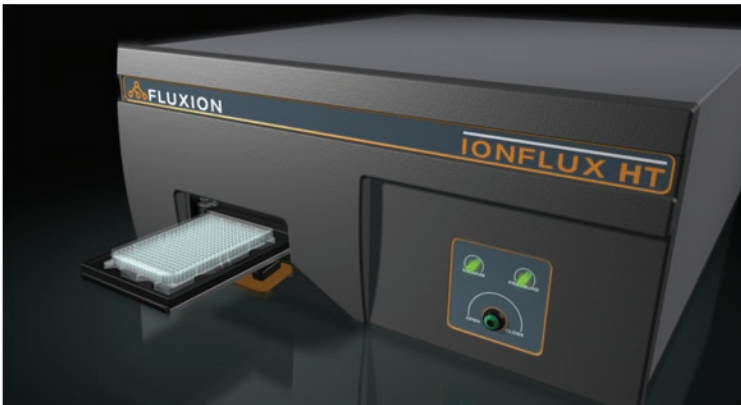


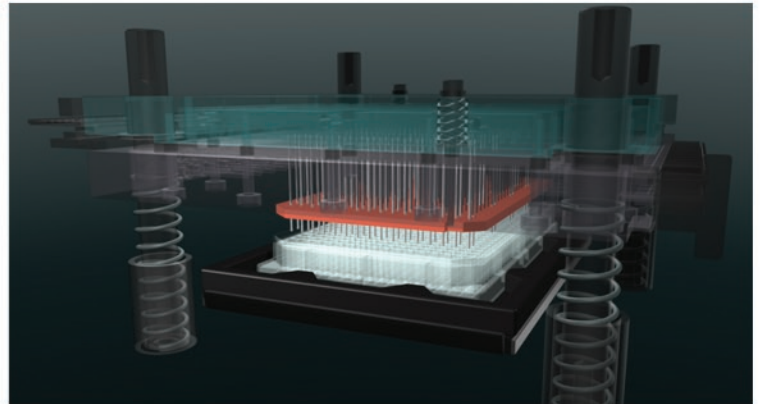
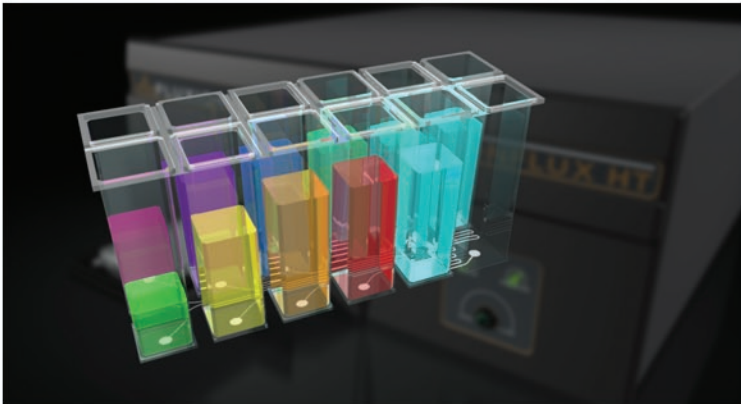
machine graphics

IonFlux Microfluidics System Overview

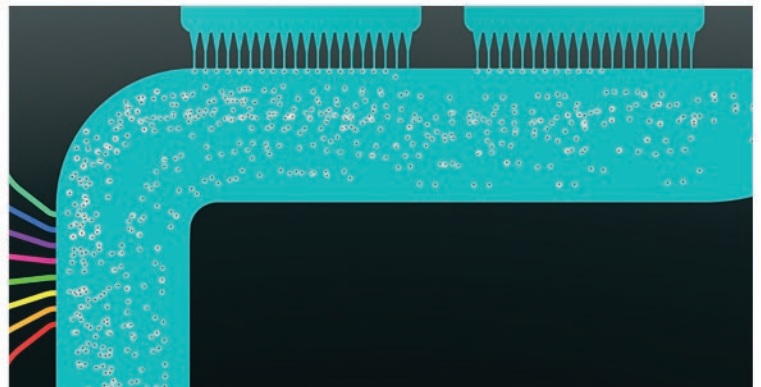
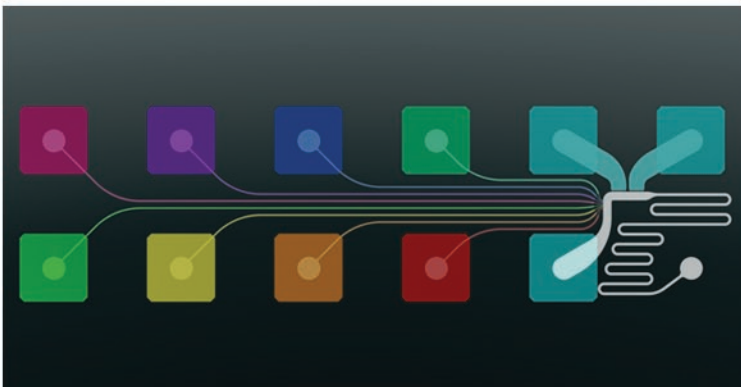
Animation describing the use of a laboratory instrument for making measurements with microfluidics. The animation starts at the macro level and makes progressive zooms into the microscopic channels that trap individual cells, where electrodes record the currents through the cell membranes under various reagents.



The device accepts standard 96- and 384-well plates. The underside of the plates comprises a network of microfluidic channels. The 384-well plate has 32 separate experimental zones of 12 wells each.



The zones are formatted with reagents (left). The plate is loaded into the instrument, where a pneumatic interface seals against the wells. Air pressure then forces reagents into the channels.



Zooming into the channels in one experimental zone, we show reagents traveling through the channels (left). Zooming in further, we show cells adhering to two trapping zones for electrophysiological measurements.