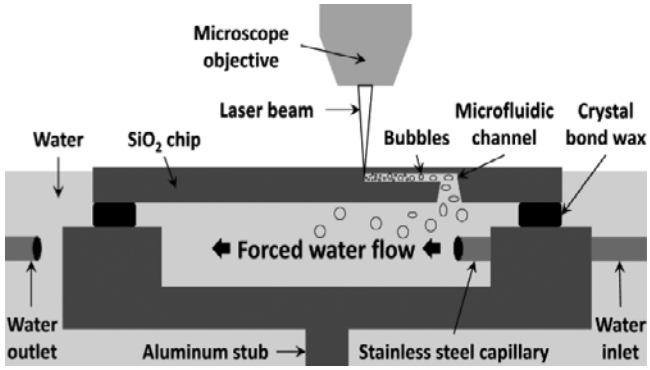

Supplementary Figure 1. Cross-sectional representation of water-assisted femtosecond laser micromachining inside a fused silica chip. Crystal bond wax was used to mount the fused silica chip on an aluminum stub. The chip-on-stub was partially submerged in water in a container on top of an Aerotech ANT95-50-XY nMT stage. The bottom surface of fused silica chip was exposed to a steady stream of water delivered through a 0.5 mm ID capillary tube. Water circulation was maintained using a peristaltic pump. The cavitation process coupled with circulating water and the laser-induced bubbles facilitate the removal of debris from the microchannels during micromachining, thus allowing multimillimeter long microfluidic channels to be opened inside fused silica without the need for any post-machining chemical etching. The microfluidic channel in the glass device is 4.0 mm long, 50 μm wide, and 25 μm deep, and is located 60 μm below the top surface of the fused silica chip. The channel was opened using an H32×/0.60 dry microscope objective to focus the 160 fs laser pulses inside the fused silica chip. During micromachining, the fused silica chip was displaced under the laser beam by the Aerotech stage at a travel rate of 200 μm/s. The hatch spacing between adjacent laser passes was equal to 1 μm. The femtosecond laser system was operated at a 250 kHz repetition rate, delivering an average power of 1.4 W.