



**SF1** Resistance as a function of channel length. The channel is filled with a .8% w/v agarose:water mixture. A straight microchannel with a width =  $250\mu\text{m}$  and a height =  $80\mu\text{m}$  was used to collect this data, so variations should be expected with different agar mixture, width and/or height values. As expected, the resistance is linear with channel length.