

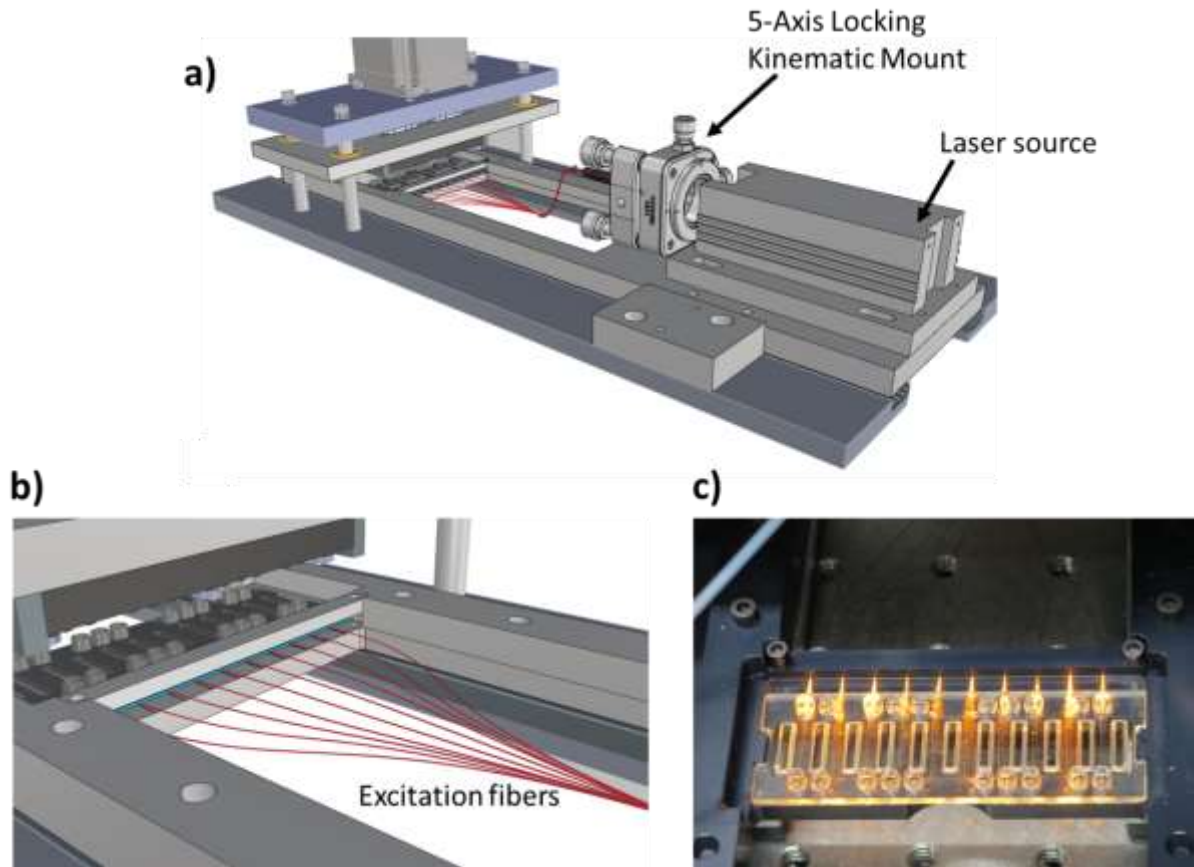
## Supplementary Information

### **An integrated device for fast and sensitive immunosuppressant detection**

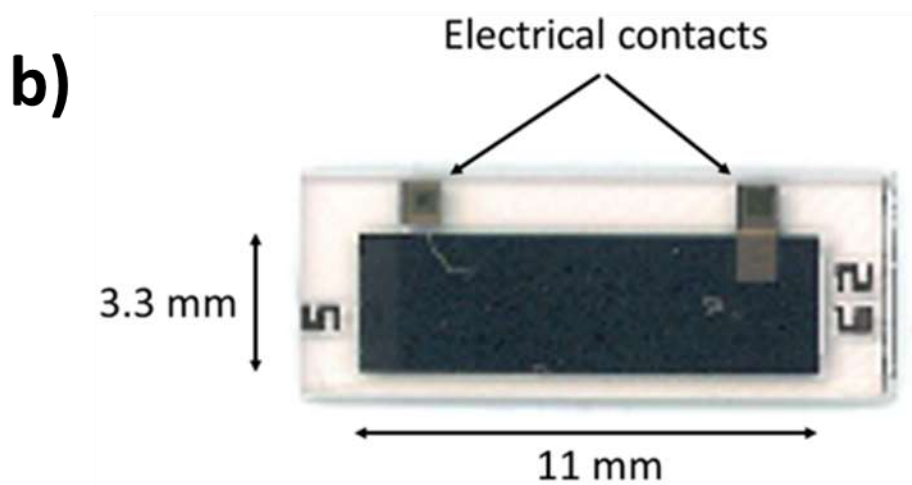
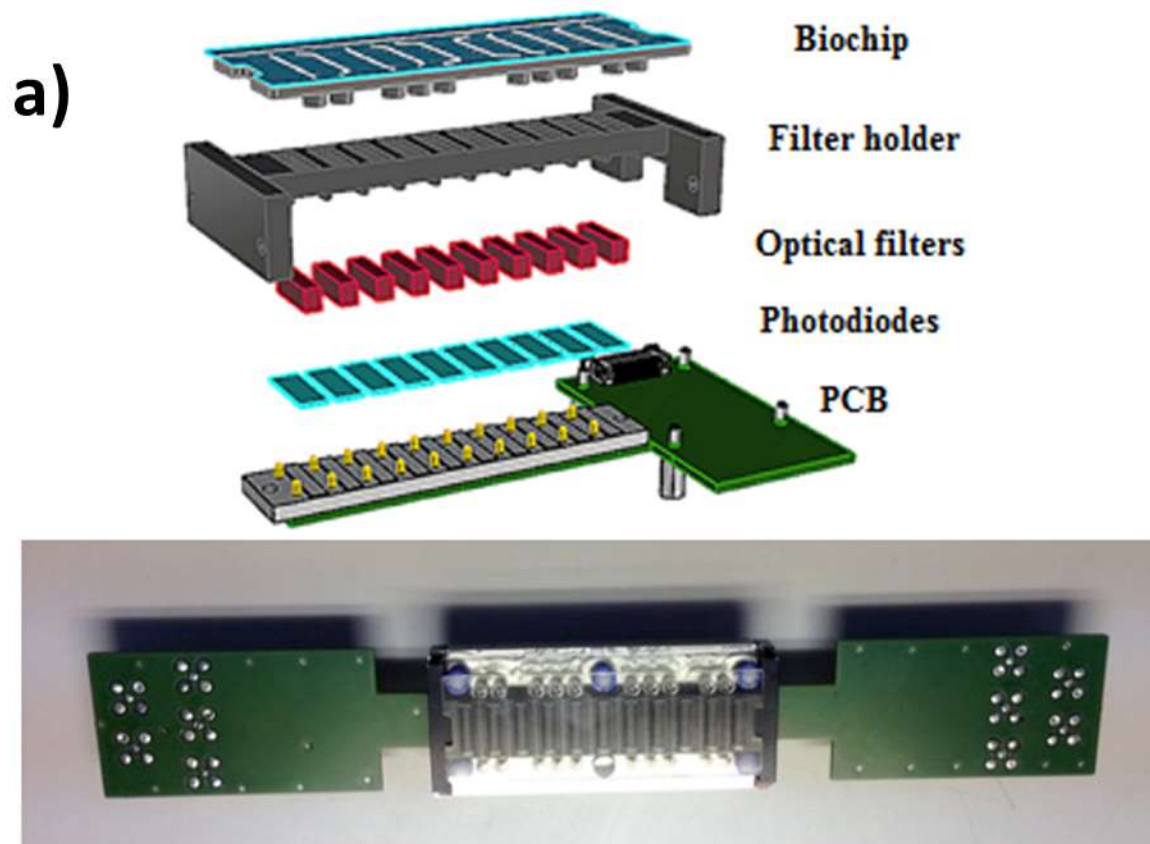
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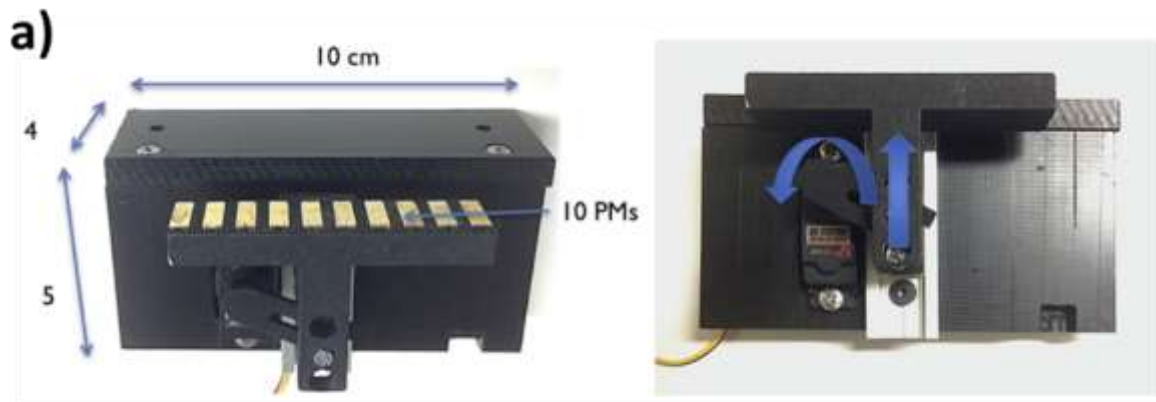
Keywords: immunosuppressant, POCT, fluorescence, cyclosporine A, mycophenolic acid



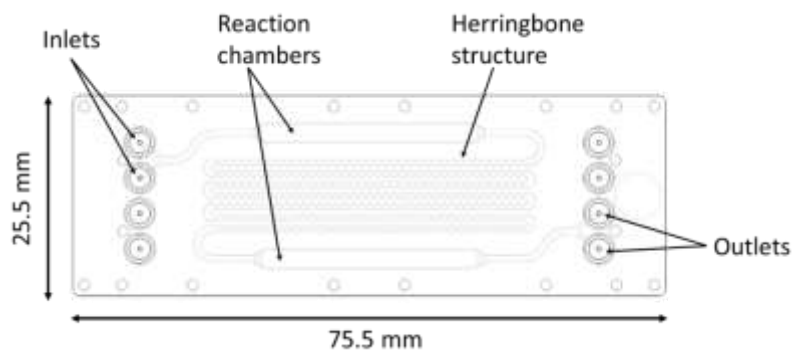
**Figure S1.** a) Rendering of the device excitation module constituted by the laser source and the kinematic mount for the alignment of the laser beam with the fibre bundle that illuminates the chip channels. b) Rendering of the excitation fibres aligned with the bottom part of the chip made of the Zeonor foil. c) View of the microfluidic chip illuminated by the yellow laser excitation light.



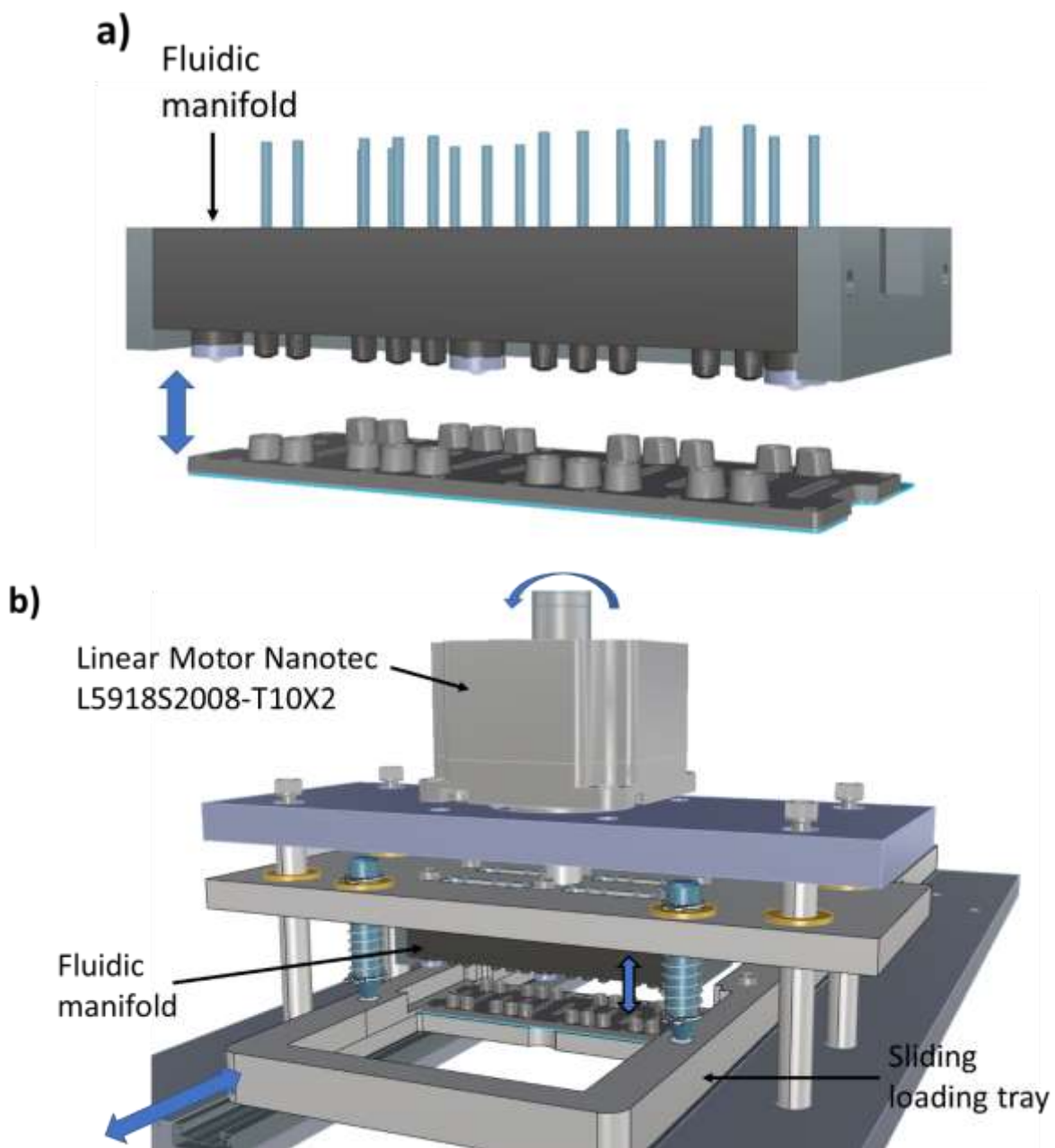
**Figure S2.** a) Exploded view and picture of the fluorescence detection module assembly. b) The large area amorphous silicon (a-Si:H) photodiode used for the detection of fluorescence coming from each microchannel.



**Figure S3.** a) The permanent magnet (PM) actuation system. The micro servo motor and the pull up system are visible on the right. b) The ten permanent magnets in contact with the bottom part of the microfluidic chip.



**Figure S4.** Scheme of the microfluidic ChipShop mixer.



**Figure S5.** a) Rendering of the fluidic manifold that accomplishes the chip fluidic coupling. b) the motorised actuation system and the chip loading system.