

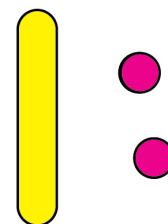
SUPPLEMENTARY INFORMATION

TOP VIEW

SIDE VIEW

FILL

MIX



TOP WELL: 80 μm height

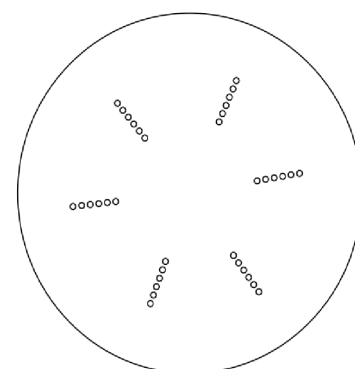
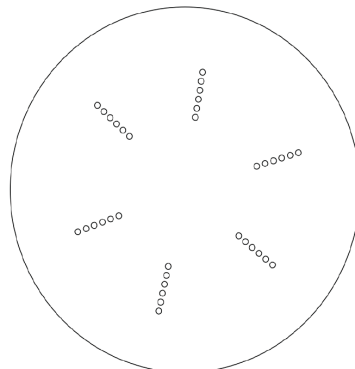
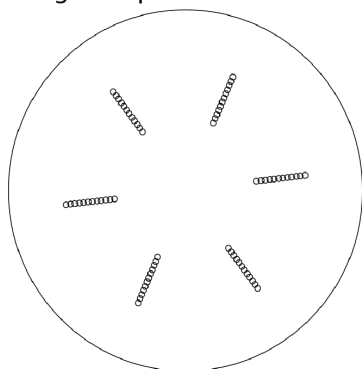
BOTTOM WELL: 14 μm height

Fig. S1 Design for carrying out the LDH assay in which the bottom channel and top wells are aligned during fill, followed by slip when the top well comes exactly in contact with bottom dried reagents. The reagent to sample ratio is 1:5 meaning that the top well carrying the sample will carry larger volume than what is in the bottom well.

DesignA: Top over Bottom disc

DesignA: Top disc

DesignA: Bottom disc



DesignB: Top over Bottom disc

DesignB: Top disc

DesignB: Bottom disc

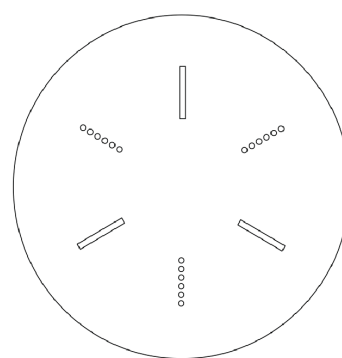
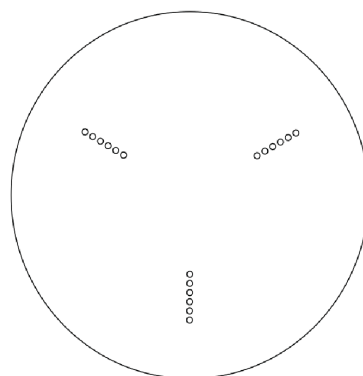
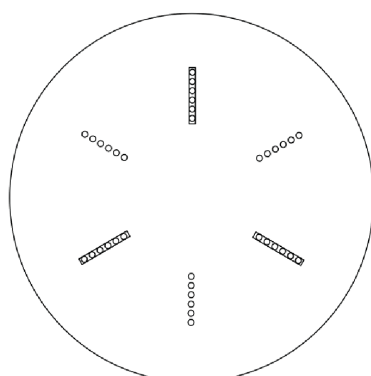


Fig. S2 Schematics AutoCAD drawings of Designs A and Design B. Design A is used for characterisation of the Slipdisc as demonstrated in Fig.2 while Design B is used for the LDH Assay as demonstrated in Fig.4 and Fig.5.

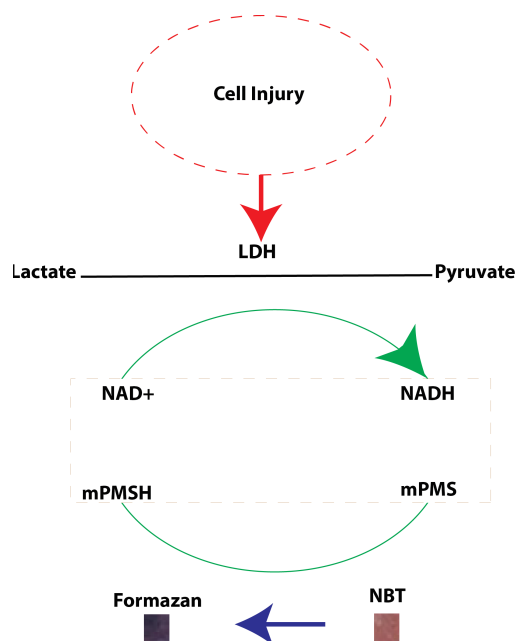


Fig.S3 A schematic principle of the LDH reaction. LDH is released into the plasma following cell damage. It catalyzes the oxidation of lactate to pyruvate, with concomitant conversion of NAD^+ to NADH. The latter transfers an electron to mPMS to produce mPMSH, which reduces NBT to formazan, subsequently yielding a purple colour.

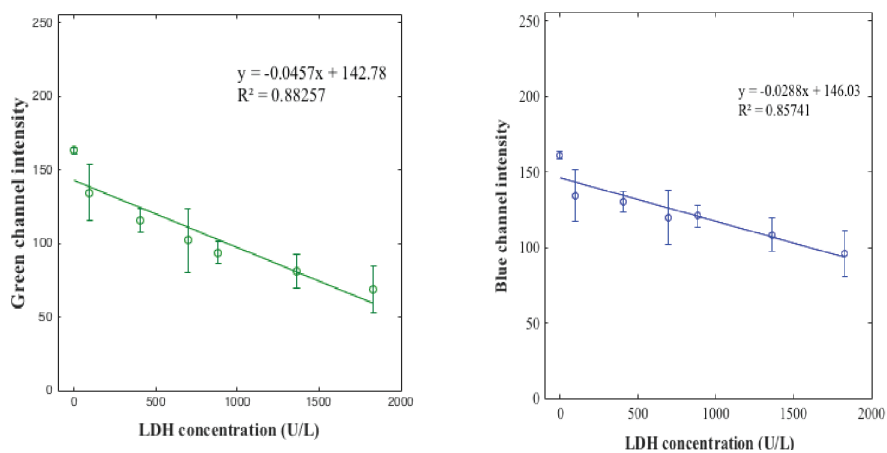


Fig.S4 Scatter plot of LDH concentrations versus normalized green and blue channel intensity after 10 minutes. The error bars indicate standard deviations, above is the equation for the best fit line connecting all the points with a correlation coefficient which is lower than that of red channel.