## **Supplementary Information**

## Rapid fabrication of functionalised poly(dimethylsiloxane) microwells for cell aggregate formation.

A. Forget,<sup>†, a, b</sup> A. L. S. Burzava,<sup>†, a, b</sup> B. Delalat,<sup>a, b</sup> K. Vasilev,<sup>a, b, c</sup> F. J. Harding,<sup>\*, a, b,</sup> A. Blencowe<sup>\*, b, d</sup> and N. H. Voelcker<sup>\*, a, b</sup>

<sup>a.</sup> Future Industries Institute, University of South Australia, Mawson Lakes 5095, Australia.

<sup>b.</sup> Cooperative Research Centre for Cell Therapy Manufacturing (CRC-CTM), Adelaide 5000, Australia.

<sup>c</sup> School of Engineering, University of South Australia, Mawson Lakes 5095, Australia.

- <sup>d.</sup> School of Pharmacy and Medical Science, University of South Australia, Adelaide 5000, Australia.
- \* E-mail:
- Anton Blencowe: anton.blencowe@unisa.edu.au;
- Nicolas H. Voelcker: nico.voelcker@unisa.edu.au;
- Frances J. Harding: fran.harding@unisa.edu.au

† These authors contributed equally.



Figure S1. (**A**) Monomers used to prepare plasma polymer coatings. (**B**) Plasma polymer coating thickness on silicon wafers measured by ellipsometry. Error bars show standard deviation for n=3. (**C**) and (**D**) ATR-FTIR spectra of TCPS Petri dishes and plasma polymer coated Petri dishes.



Figure S2. Full Attenuated total reflectance FTIR spectra of the etched PDMS microwells (dashed) and unmodified microwells (plain).



Figure S3. Energy-dispersive x-ray spectra of the untreated PDMS (plain) and etched PDMS (dashed).



Figure S4. Depth and diameter of the microwells made with deionised water measured from scanning electron microscope images for (A) tissue culture polystyrene (TCPS) and plasma polymer coated petri dish with (B) 1,7 octadiene; (C) ethanol and (D) allylamine plasma polymer. Error bars shows standard deviation for n=3.



Figure S5. Shape profile of the microwells made with deionised water for different volume calculated from the SEM images from which the depth and diameter of the microwells were measured over three different imaged microwells.