

Supplementary Materials for **Development of ultrasound bioprobe for biological imaging**

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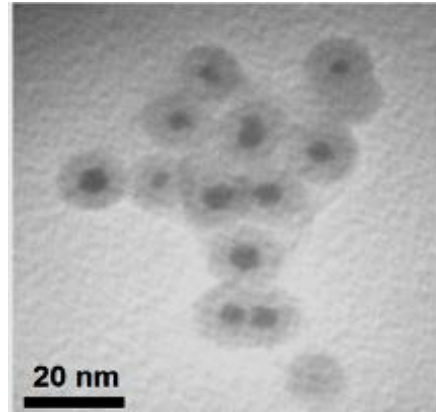


fig. S1. High-resolution TEM image of the magnetic particles embedded in the silica core shell. The magnetic particles were around 5-10 nm. Image taken by Vinayak Dravid

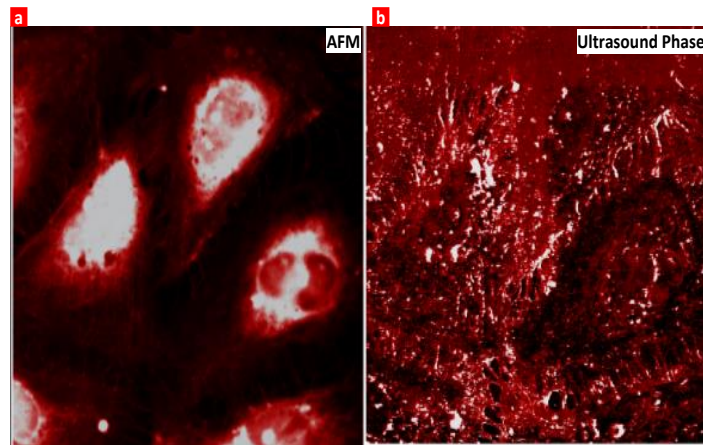


fig. S2. Ultrasound bioprobe image of the ECs when treated with thrombin. The image was acquired when the feedback electronics was turned off. It behaves like normal contact mode image since without feedback, significant dampening of the cantilever oscillations happens which results in poor resolution. Scale on the image is 80 micron. Image taken by Gajendra Shekhawat

Fig. S3 Image taken by Gajendra Shekhawat

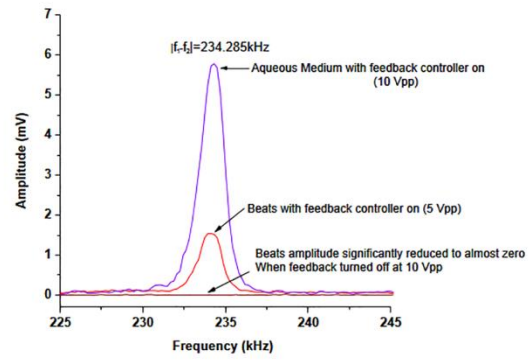


fig. S3. Detection of difference (beat) frequency when the feedback control electronics of probe is on and off. Significant damping of cantilever oscillations in aqueous solution when cantilever feedback was turned off.