Supporting Information

A facile synthesis of PLGA encapsulated cerium oxide nano particles: Release kinetics and biological activity

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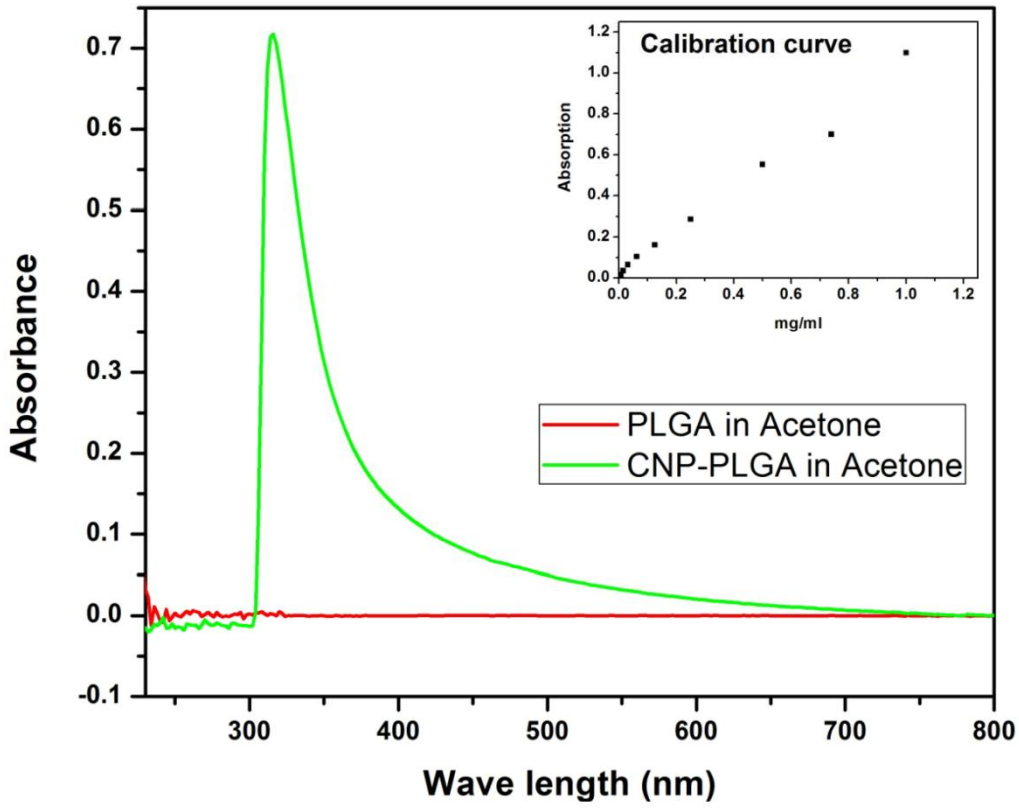

Fig. SI 1 UV-Vis absorption spectrum of ceria nano particles after dissolving CNPs encapsulated PLGA micro particles (Green) and PLGA micro particles in acetone. Calibration curve of UV-Vis absorption of CNPs at 318nm (inset).

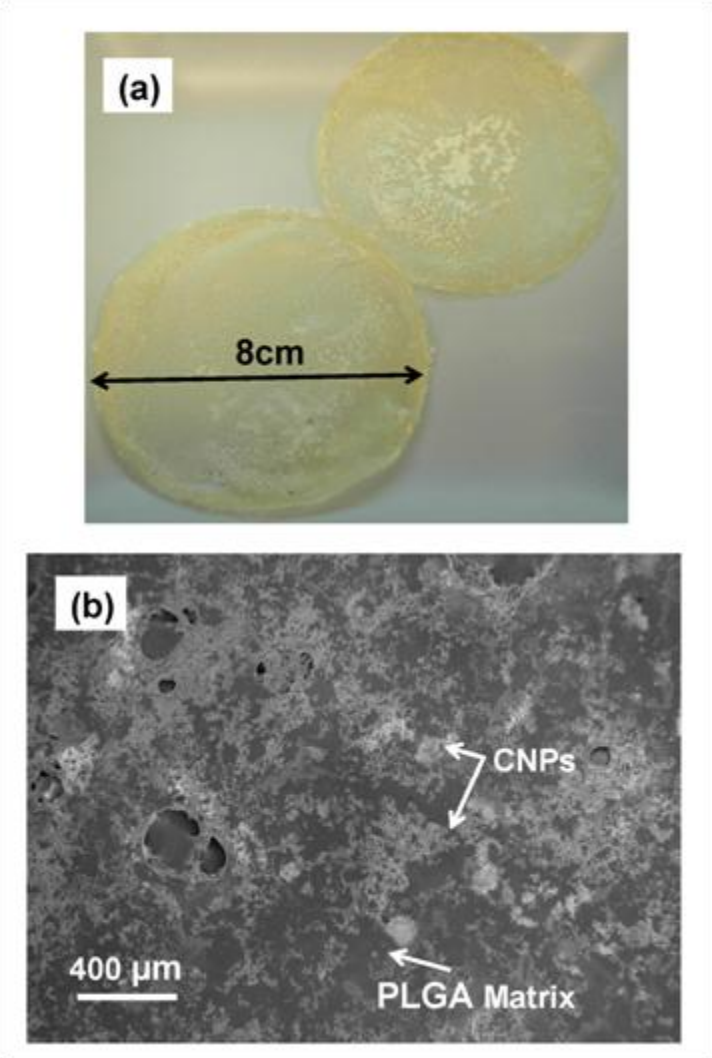

Fig. SI 2 (a) A photograph of CNP-PLGA scaffold (8 cm diameter) (b) SEM image indicating presence of porosities with uniform distribution of CNPs in PLGA.

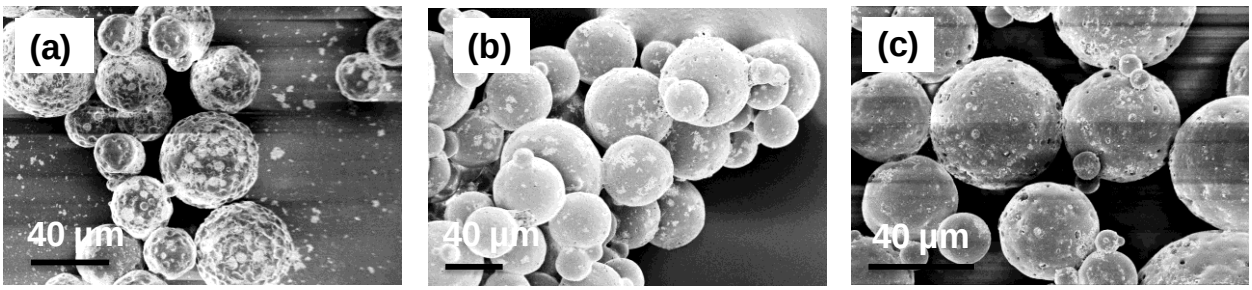

Fig SI 3 Low magnification SEM micrographs showing (a) No agglomeration (pH9) (b) agglomeration (pH 6) (c) No agglomeration (pH 7.4) of CNP-PLGA micro particles by day 15

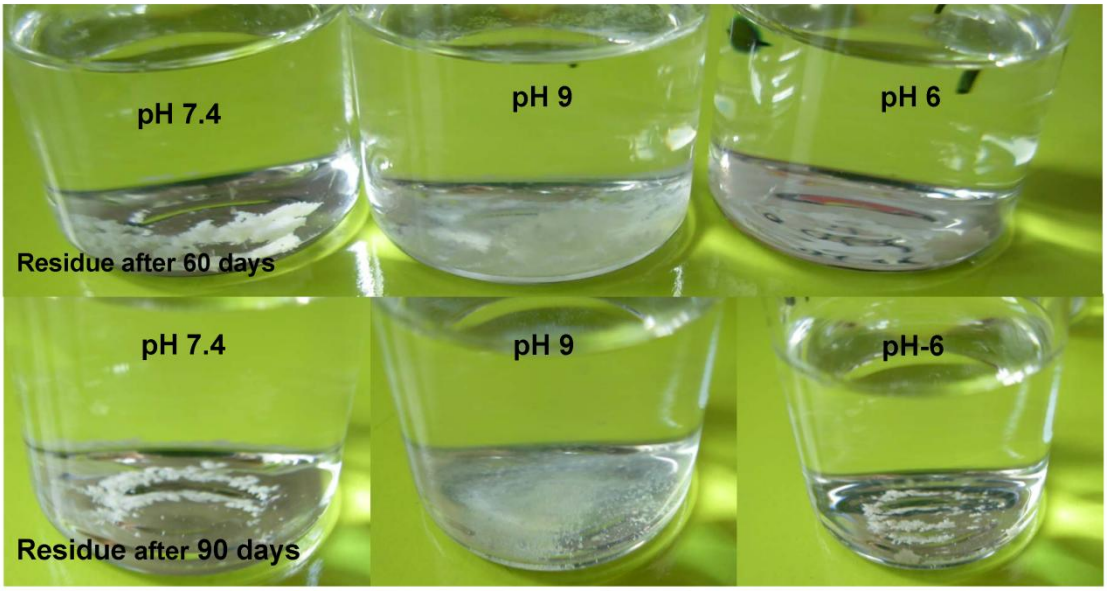

Fig. SI 4. Degraded CNP-PLGA micro particles at different pH after 60 days (top row) and after 90 days (bottom row).

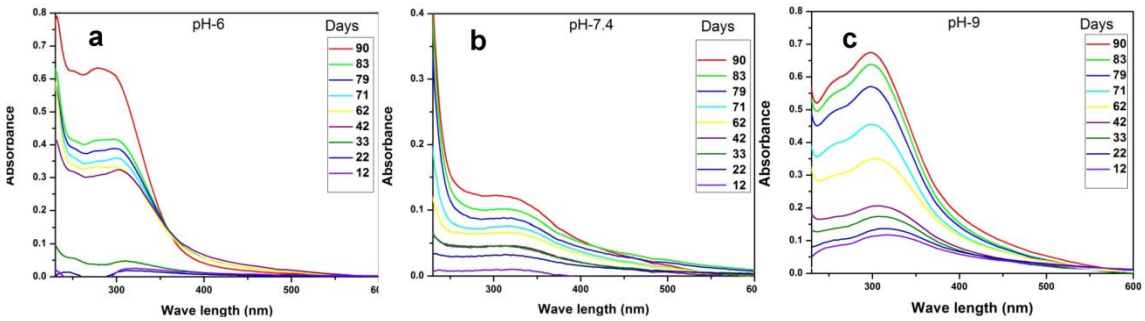

Fig.SI 5. Time dependent UV absorption of released CNPs in different released medium (a) pH 6 (b) pH 7.4 (c) pH 9. Plots illustrate the increase in absorption with increase of released CNPs from PLGA microparticles. (some of the data are not shown for figure clarity)

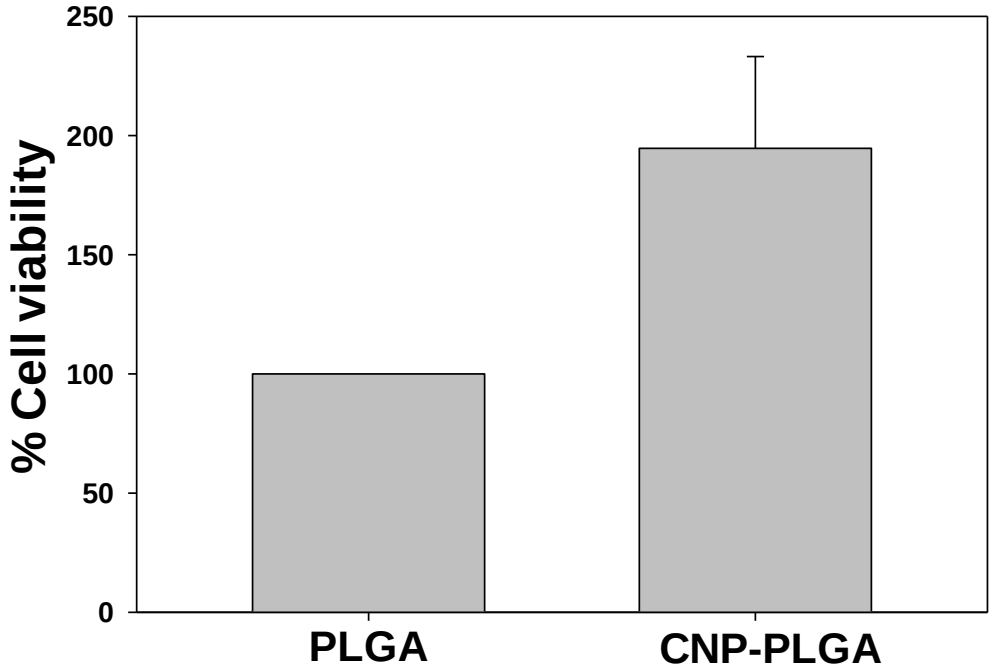

Fig. SI 6 Proliferation of HaCat cells on PLGA and CNP-PLGA scaffolds. Figure indicates the biocompatibility of both scaffolds and increased cell proliferation by 200% after addition of CNPs