

Plasma assisted designing of biocompatible 3D printed PCL/silver nanoparticle scaffolds: *In vitro* and *in vivo* analysis

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Supplementary information

Methods

TEM

AgNPs were imaged using a transmission electron microscope (JEOL-2100F, Japan) operating at an accelerating voltage of 200 kV. A droplet of AgNP solution was placed on a carbon-coated copper grid from ProSciTech (Australia) and dried overnight for TEM evaluation.

UV

The absorption spectra of AgNP solution were attained using Varian Cary50 BIO UV-Visible Spectrophotometer (Varian Inc. U.S.A).

DLS

The hydrodynamic diameter of nanoparticle solution was analyzed using Malvern-Zetasizer Nano ZS.

Results and discussion

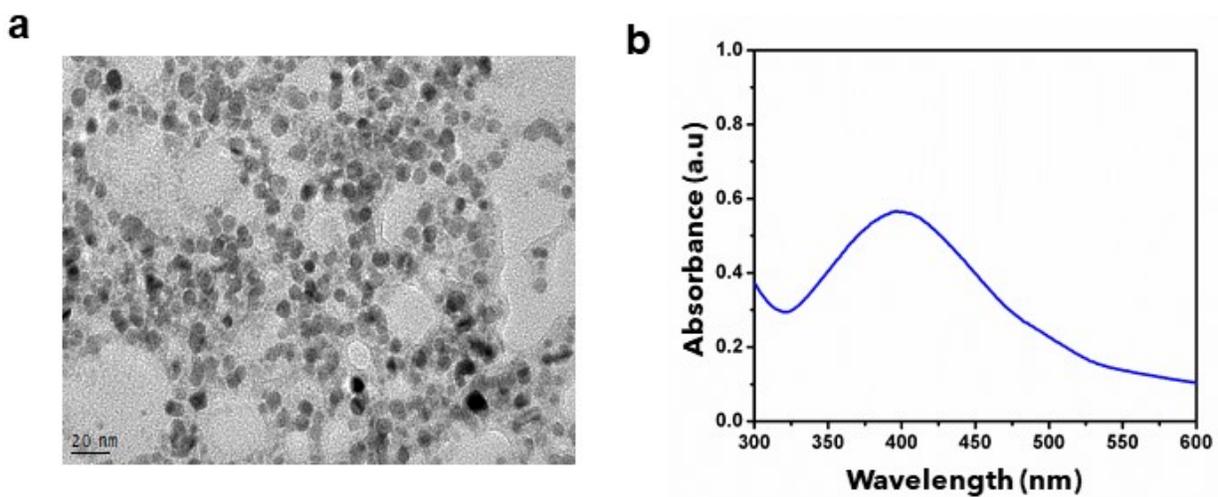


Figure S1. (a) TEM of AgNP solution (b) UV of nanoparticle solution

TEM images revealed that AgNP has spherical morphology. The average particle sizes of AgNP particles were 11 ± 0.95 nm respectively. The hydrodynamic diameter of the particle was 12 ± 3 nm, in agreement with TEM analysis. The maximum absorption peaks of AgNP solution was at 400 nm.

Table S1. List of melting temperature of PCL, pPCL, pPCL-Ag6, pPCL-Ag24

Sample	Melting temperature, T_m (°C)	Crystallisation temperature, T_c (°C)
PCL	62.92	39.74
pPCL	64.33	40.47
pPCL-Ag6	63.13	40.15
pPCL-Ag24	64.09	40.32