

Supplementary information

Laser assisted synthesis of Multi-colored Protein dots and their biological distribution in mice using Dye tracking method: A novel approach to deliver therapeutic payloads to central nervous system

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S1 Quantum yield calculation

As a reference using- Quinine sulphate (QY, $\Phi = 58\%$) at excitation wavelength- 250 nm [1] for calculating QY for C-dots using following formula:

$$\Phi_S = \Phi_R [A_R(\lambda_R) n_S^2 I_S] / [A_S(\lambda_S) n_R^2 I_R]$$

Φ_S and Φ_R are quantum yields of sample and referencerespectively; $A_R(\lambda_R)$ and $A_S(\lambda_S)$ are the absorbance of the reference and sample at excitation wavelengths; n_S and n_R are refractive indices of the sample medium and reference medium respectively; I_S and I_R are the integrated fluorescence intensities of sample and reference respectively. QY obtained were C-dots_{Red} were calculated to be 13.1% and C-dots_{Green} as 15.32%.

Reference

[1] W.H. Melhuish, J. Phys. Chem. 65 (1961) 229– 235.

S2 In vitro cell viability assay

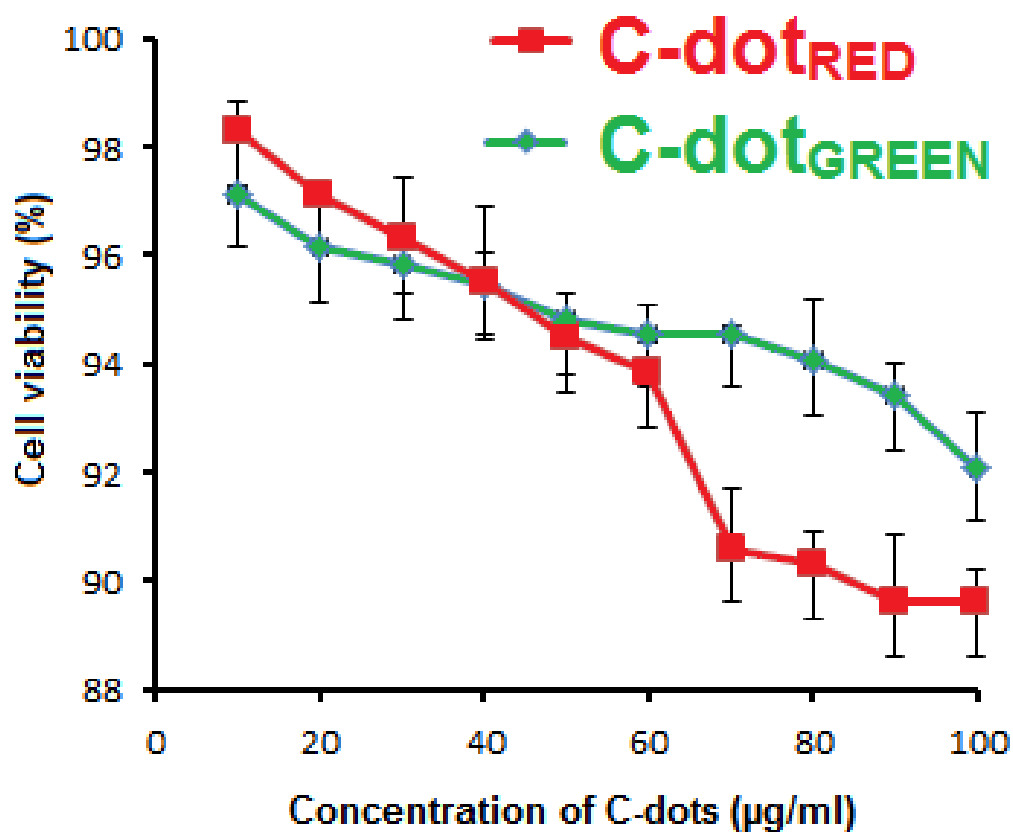


Fig.S2 Cellular viability using MTT assay showing effect of carbon dots (green and red) on vero cell lines post 24 h. Data showing mean of experiments performed in triplicates.