Supporting Information

Nitrogen-doped Carbon Nanodots for bioimaging and delivery of paclitaxel

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1. **Atomic Force Microscopy**

![AFM Image](image)

**Figure S1.** Tapping mode AFM (0.5 × 0.5 μm) from a drop-casted aqueous solution on a mica substrate and height profile along the line.

2. **Nuclear Magnetic Resonance Spectroscopy**

![NMR Image](image)

**Figure S2.** $^1$H-NMR (DMSO-$d_6$, 298 K, 500 MHz) of 2'-succiny-paclitaxel (top) and NCND-PTX (bottom).
3. FT-IR spectroscopy

**Figure S3.** FT-IR spectra of NCND-PTX (black line), NCNDs (red line), PTX (blue line).

**Figure S4.** FT-IR spectra of NCND-Cy5 (violet line) and NCND-PTX-Cy5 (green line).
4. UV-Vis and FL spectroscopies

**Figure S5.** UV-Vis spectra of NCND-PTX (black line) and NCNDs (red line) in water (298 K).

**Figure S6.** UV-Vis spectra of NCNDs incubated in complete DMEM for 0 h, 24 h, 48 h and 72 h at 37 °C and 5% CO₂ in a humidified atmosphere.
Figure S7. UV-Vis spectrum of NCND-Cy5 (violet line) and NCND-PTX-Cy5 (green line) in water (298 K).

Figure S8. FL spectra of NCND-Cy5 in water (298 K) at different excitation wavelengths.
Figure S9. FL spectra of NCND-PTX-Cy5 in water (298 K) at different excitation wavelengths.

Figure S10. FL spectra of the hydro soluble fraction of THP-1 cells pre-incubated with NCND-PTX in water (298 K).
5. Confocal microscopy

Figure S11. Confocal fluorescence images of (a) PC-3, (b) A-549, (c) HeLa, (d) MCF-7 and (e) MDA-MB-231 cells after incubation with 300 μg·mL⁻¹ NCNDs. Merged picture of the fluorescent bright field (right), and fluorescent image (left). The scale bar corresponds to 20 μm.
6. Cell viability

**Figure S12.** Cell viability assays of NCNDs at different concentrations (1 µg·mL⁻¹ to 1 mg·mL⁻¹) with different cell lines at 72 h of incubation, 37 °C and 5% CO₂ (a) C33-A, (b) MCF-7, (c) MDA-MB-231, (d) A-549, (e) PC-3, (f) HeLa cancer cell lines.
Figure S13. Dose-Response diagram of the cell viability of (a) C33-A (b) MCF-7 (c) MDA-MB-231 (d) A-549 (e) PC-3 (f) HeLa cells treated with PTX (black line) and NCND-PTX (red line).
Figure S14. Cell viability of NCND-PTX and PTX in several cancer cell lines at 72 h of incubation. (a) MCF-7 (b) MDA-MB-231 (c) A-549 (d) PC-3 (e) HeLa cells treated with PTX (green bars) and NCND-PTX (blue bars). The statistical analyses were performed using two-way ANOVA followed by Bonferroni’s test. Data are expressed as mean ± SD (n = 4). ***P < 0.001, **P < 0.01 and *P < 0.05.