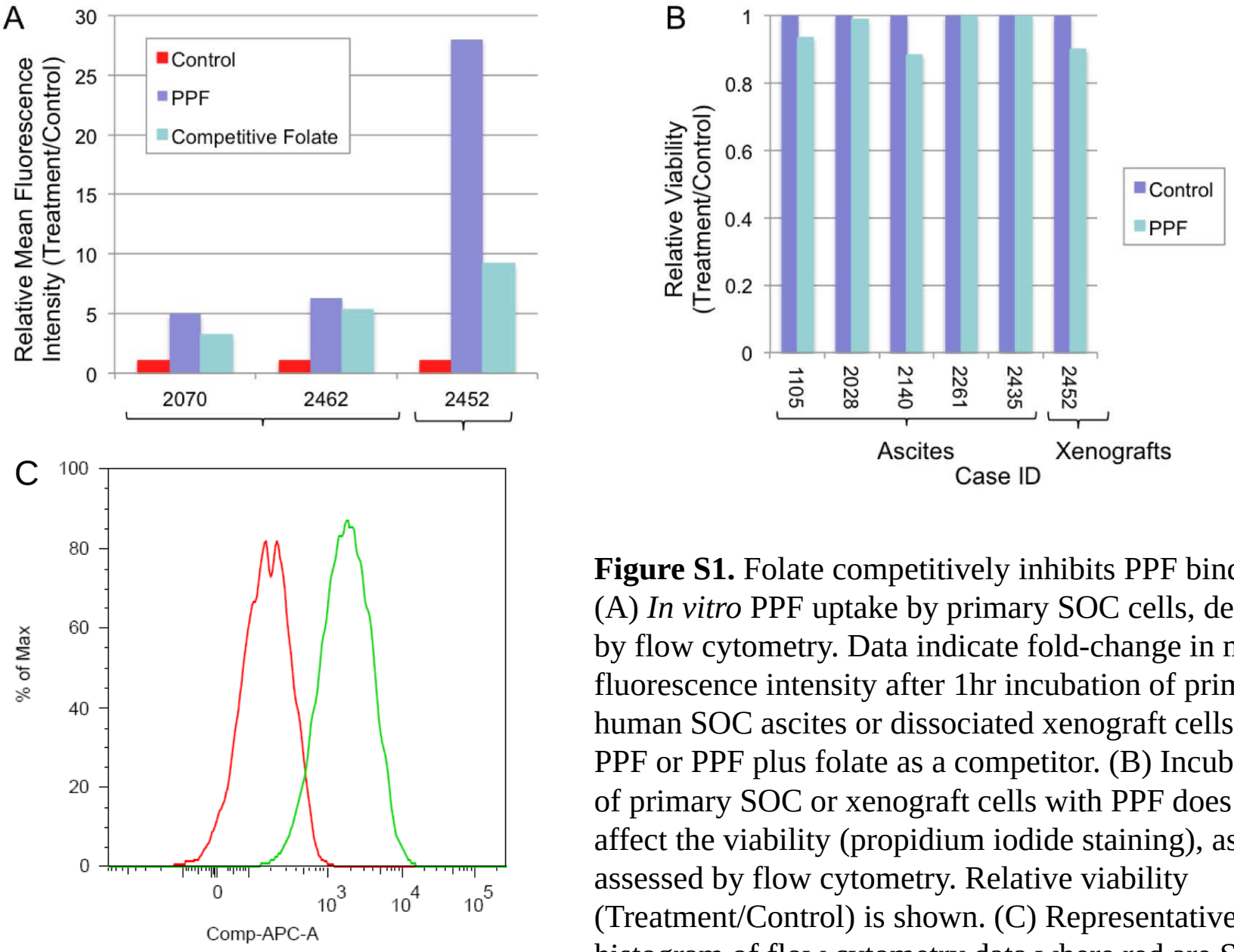

Figure S1. Folate competitively inhibits PPF binding**.** (A) *In vitro* PPF uptake by primary SOC cells, detected by flow cytometry. Data indicate fold-change in mean fluorescence intensity after 1hr incubation of primary human SOC ascites or dissociated xenograft cells with PPF or PPF plus folate as a competitor. (B) Incubation of primary SOC or xenograft cells with PPF does not affect the viability (propidium iodide staining), as assessed by flow cytometry. Relative viability (Treatment/Control) is shown. (C) Representative histogram of flow cytometry data where red are SOC cells alone (sample 2140) and green are SOC incubated with PPF.

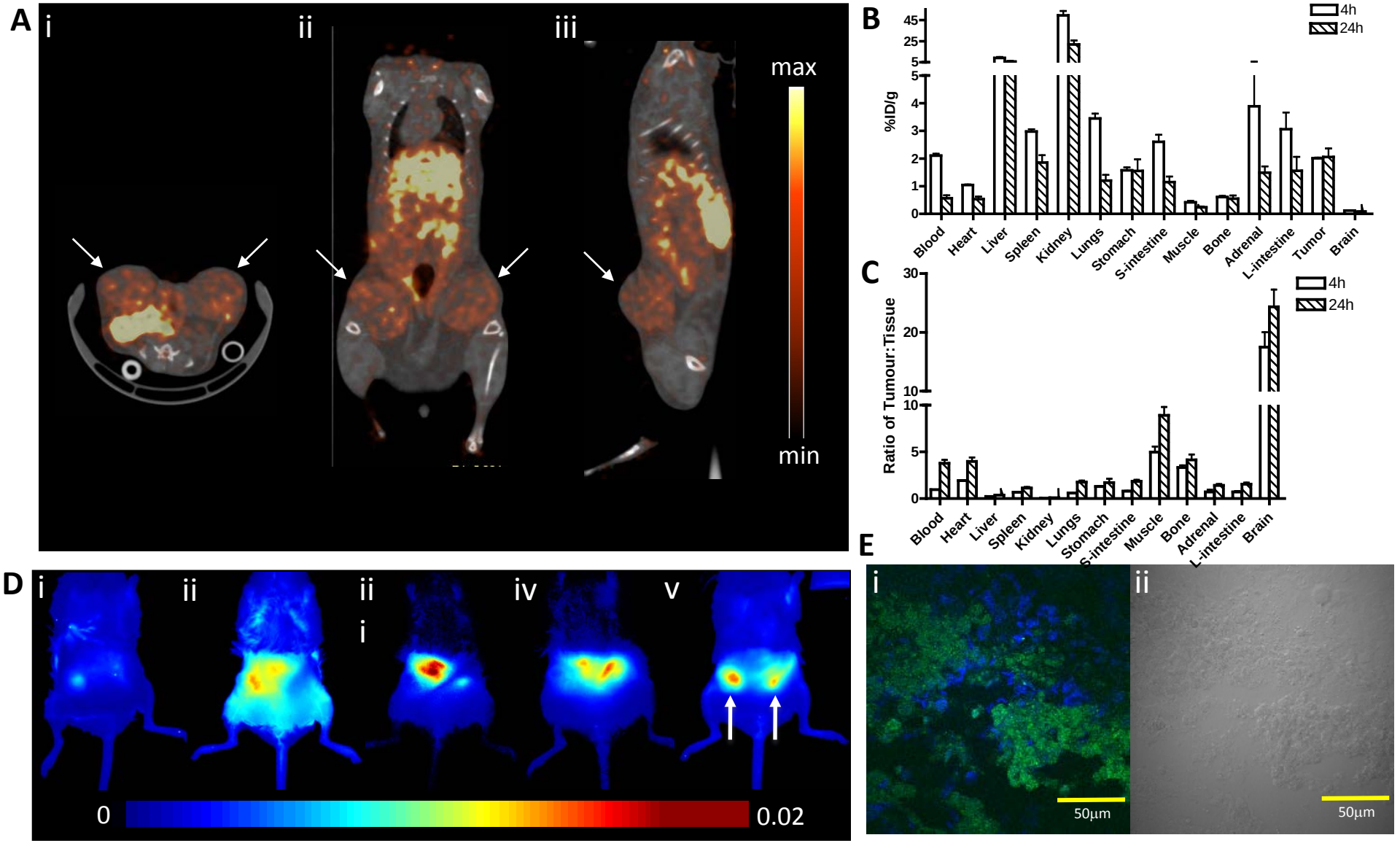

Figure S2. *In vivo* uptake of PPF by primary SOC xenografts in the mammary fat pad. (A) Representative PET/CT image of a single (i) axial, (ii) coronal and (iii) sagittal slice 24h post-intravenous injection of 64Cu-PPF; white arrows indicate xenografts. (B) Corresponding 64Cu-PPF biodistribution data at 4h (n=3) and 24h (n=6), reported as percent injected dose per gram of tissue (%ID/g). (C) Tumour-to-tissue ratio of injected dose shows an 8.91 ± 0.91-fold increase in tumor to muscle ratio uptake at 24 h post 64Cu-PPF administration. Data are expressed as mean values ± standard deviation. (D) Representative composite fluorescence images (i) before, and (ii) 15min, (iii) 2h, (iv) 6.5h and (v) 24h post-intravenous PPF injection (2.25mg/kg). (E) Confocal micrographs showing the localization of PPF in frozen sections (10µm) of primary SOC tumors 24h post-injection (i) PPF fluorescence images (green) overlaid with DAPI (blue) and (ii) differential interference contrast images.

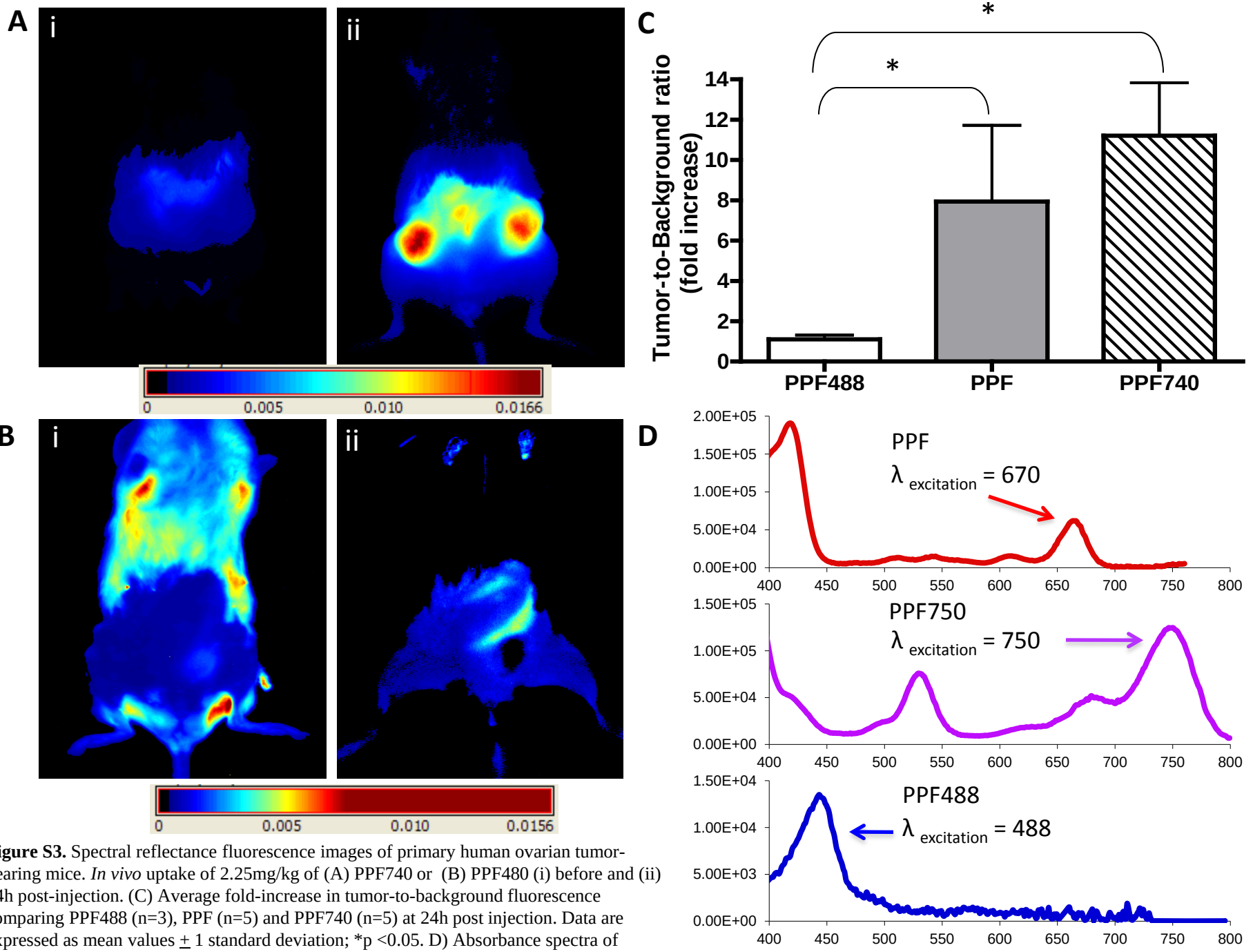

Figure S3. Spectral reflectance fluorescence images of primary human ovarian tumor-bearing mice. *In vivo* uptake of 2.25mg/kg of (A) PPF740 or (B) PPF480 (i) before and (ii) 24h post-injection. (C) Average fold-increase in tumor-to-background fluorescence comparing PPF488 (n=3), PPF (n=5) and PPF740 (n=5) at 24h post injection. Data are expressed as mean values ± 1 standard deviation; *p <0.05. D) Absorbance spectra of PPF488, PPF and PPF740.