## **Supplementary Information**

## Radiation-enhanced delivery of plasmid DNA to tumors utilizing a novel PEI polyplex

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Running title: Radiation-enhanced PEI-DNA polyplex delivery







е





Epi-fluorescence



Radiant Efficiency



g

(<u>p/sec/cm²/s</u>r) µW/cm²

Color Scale Min = 1.00e7Max = 2.42e7

Supplementary Figure 1. Off-target tissue accumulation of pDNA. IVIS imaging of iRFP

fluorescence in tumor, liver, spleen, kidney, lung, and heart (from left to right) 4 hrs following intravenous administration of pDNA using 3E/DS (a), CLPEI/DS (b), 3E/HA (c), CLPEI/HA (d), jetPEI (e), EnTranster (f), or Coatsome (g) as a vector. Representative images shown.



**Supplementary figure 2.** Time course of off-target tissue accumulation of pDNA. IVIS quantification of tissue iRFP fluorescence relative to tumor iRFP fluorescence over time measured in liver (a), spleen (b), kidney (c), and lung (d). Horizontal dotted line indicates relative fluorescence of iRFP in tumor.  $n \ge 4$  for each time point; error bars = SEM; # indicates  $p \le 0.05$  relative to 0 Gy of same pDNA carrier and time point