## **Supplemental Figure Legends**

**Supplemental Figure 1.** Visualization of Fluorescent Microspheres. A BxPC-3 xenograft tumor with a single central intratumoral injection of fluorescent microspheres ( $0.5 \mu m$ ) was fixed and stained with 4',6-diamidino-2-phenylindole. A, Significant extratumoral deposition of the fluorescent microspheres can be seen on this collage view of the entire tumor section. B and C, Higher-power views of the micrographs marked 1 and 2 in A, respectively, showing the breach of the tumor capsule. D, Higher-power view of micrograph 3 showing a generally sparse but rather uniform distribution of fluorescent microspheres in the central tumor region.

**Supplemental Figure 2.** Visualization of Fluorescent Microspheres. BxPC-3 xenograft injected intratumorally with 0.5 µm red fluorescent microspheres. A and B, Phase-contrast and fluorescent micrographs, respectively. C, Overlay of phase-contrast and fluorescence micrographs in a central region of the tumor near the injection site. Note the areas of microsphere accumulation along the fibroblast/tumor cell boundaries.

**Supplemental Figure 3.** Micro-computed tomography image of a dilution series of Omnipaque 300 in phosphate-buffered saline (PBS).

**Supplemental Figure 4.** Effect of 10% Omnipaque 300 on infection of cultured cells with measles virus containing and an additional gene encoding human green fluorescent protein (MV-GFP). MV-GFP was diluted to 100 Vero TCID<sub>50</sub>/mL in either Opti-MEM (control) or 10% (v/v) Omnipaque 300. The mixture was incubated on ice for 10 minutes and added to monolayers of BxPC-3, FaDu, or SCC-25 cells. At 48 hours, the number of MV-GFP-positive syncytia per well were counted.



## Supplemental Figure 2



## Supplemental Figure 3



## Supplemental Figure 4

