

Supplementary Information

The role of tumor model in magnetic targeting of magnetosomes and ultramagnetic liposomes

Alberto Curcio¹⁺, Jose Efrain Perez¹⁺, Sandra Prévéral², Alexandre Fromain¹, Coralie Genevois³, Aude Michel⁴, Aurore Van de Walle¹, Yoann Lalatonne⁵, Damien Faivre², Christine Ménager⁴ and Claire Wilhelm^{1}*

1. Laboratoire Physico Chimie Curie, PCC, CNRS UMR168, Institut Curie, Sorbonne University, PSL University, 75005 Paris, France.

2. Laboratoire de Bioénergétique Cellulaire, Institute of Biosciences and Biotechnologies of Aix Marseille (BIAM), UMR7265 CEA – CNRS - Aix Marseille Univ, CEA Cadarache, Saint Paul lez Durance 13108, France.

3. TBM Core, UAR 3427, INSERM US 005, Univ. Bordeaux, F-33000, Bordeaux, France.

4. Sorbonne Université, CNRS, Laboratoire Physicochimie des Électrolytes et Nanosystèmes Interfaciaux, PHENIX, 75005 Paris, France.

5. Inserm, U1148, Laboratory for Vascular Translational Science, Université Paris 13, Sorbonne Paris Cité, Bobigny F-93017, France.

+ Equal contribution

* corresponding author : claire.wilhelm@curie.fr

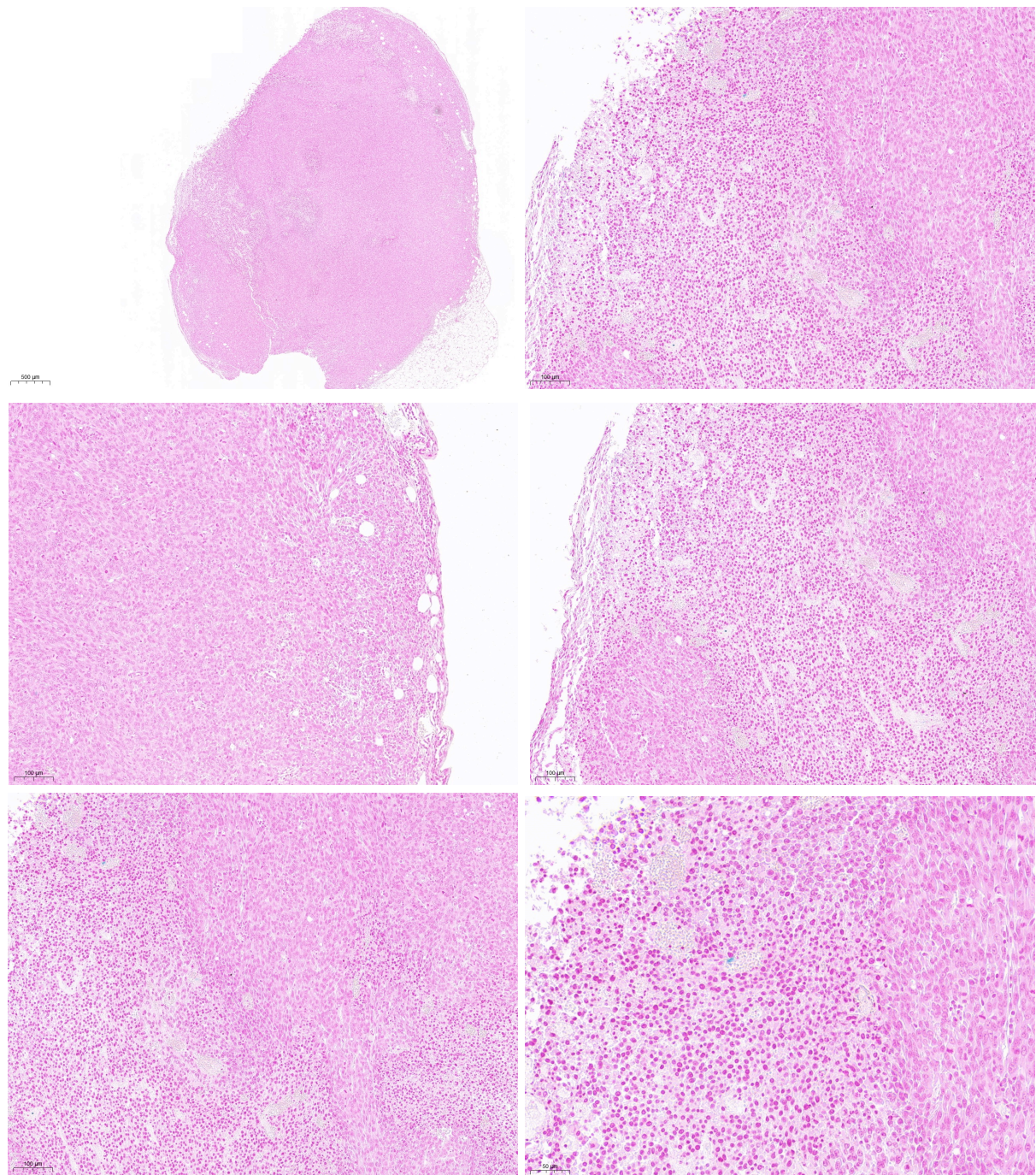


Figure 1. Histological Prussian Blue tissue staining of subcutaneous tumor models after intravenous administration of ultramagnetic liposomes and upon magnet application.

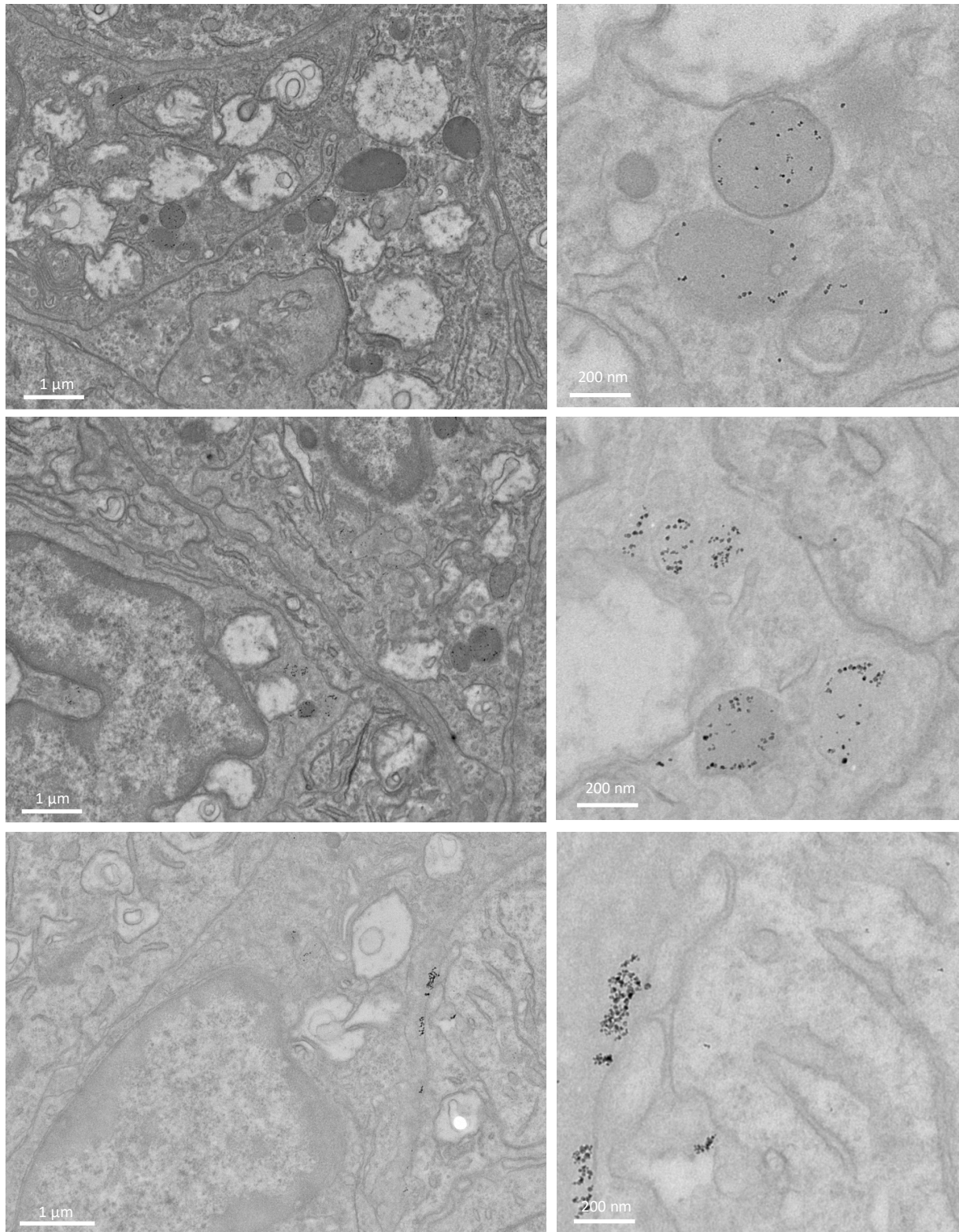


Figure 2. Transmission electron microscope imaging of orthotopic tumor models after intravenous administration of ultramagnetic liposomes and upon magnet application.

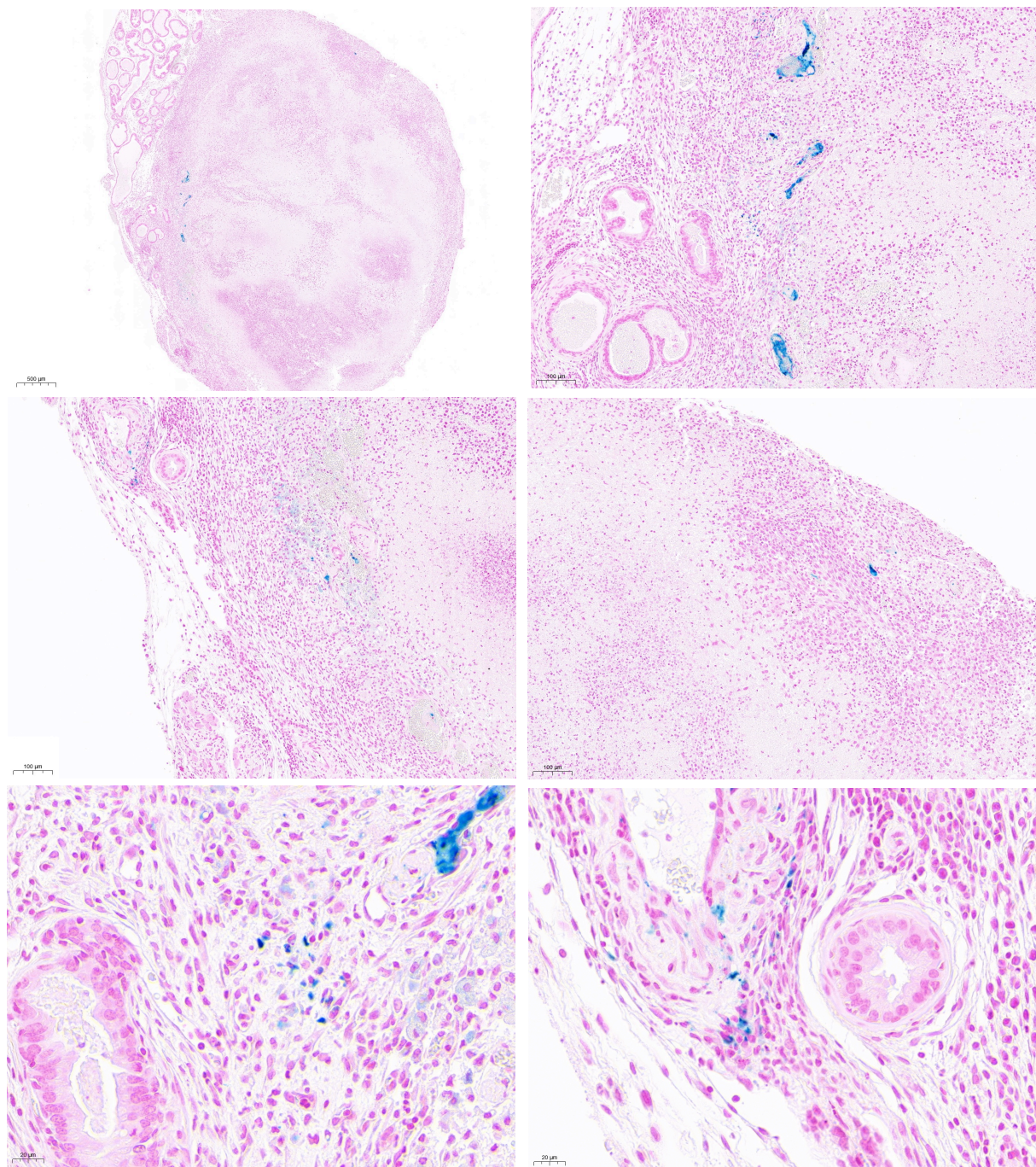


Figure 3. Histological Prussian Blue tissue staining of orthotopic tumor models after intravenous administration of ultramagnetic liposomes and upon magnet application.

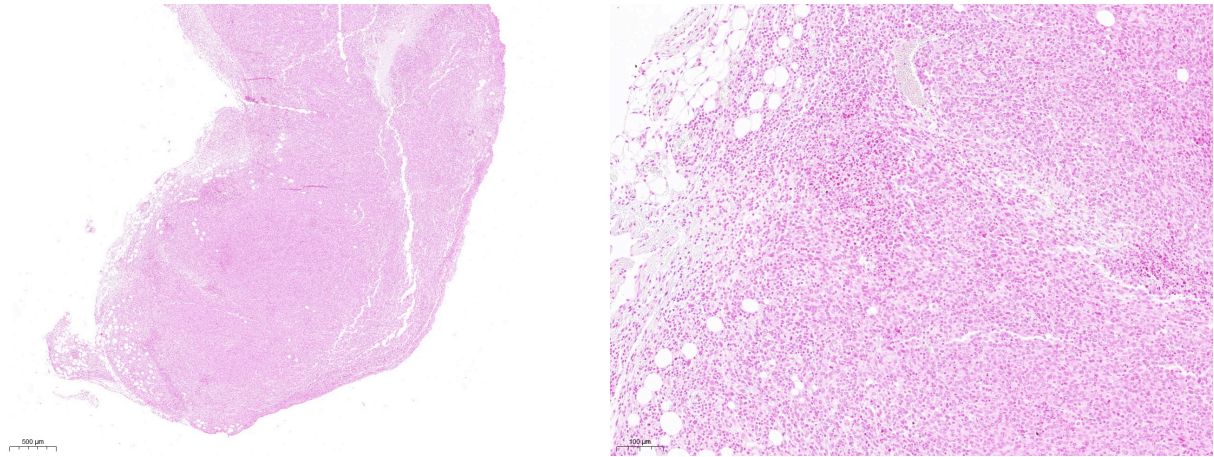


Figure 4. Histological Prussian Blue tissue staining in subcutaneous tumor models after intravenous administration of ultramagnetic liposomes and without magnet application.

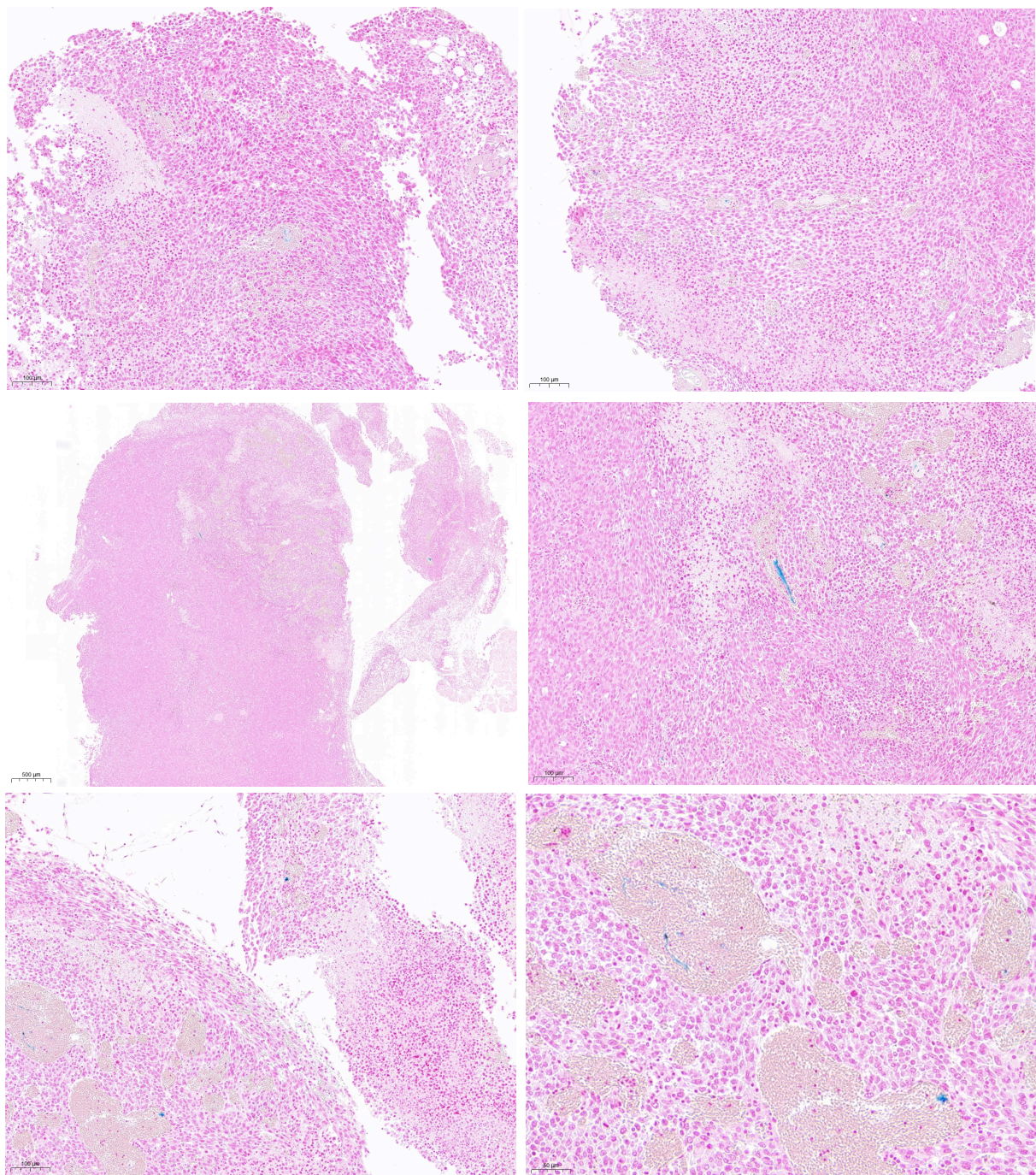
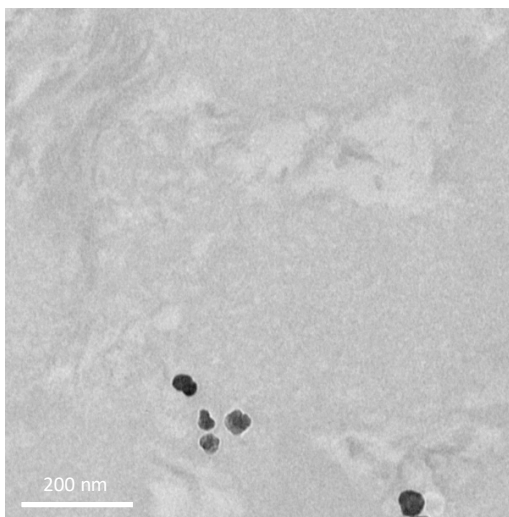
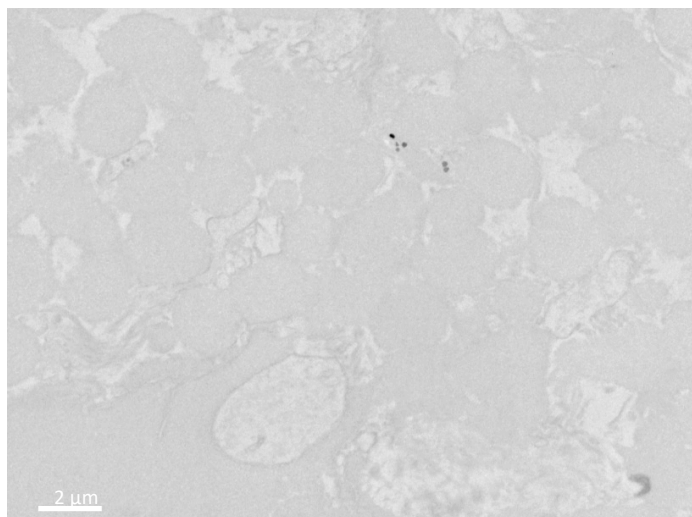
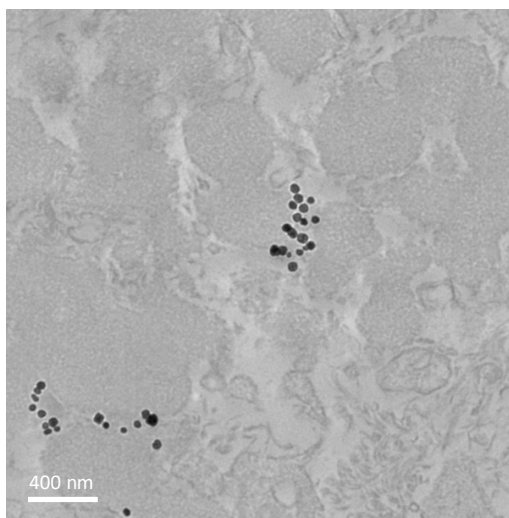
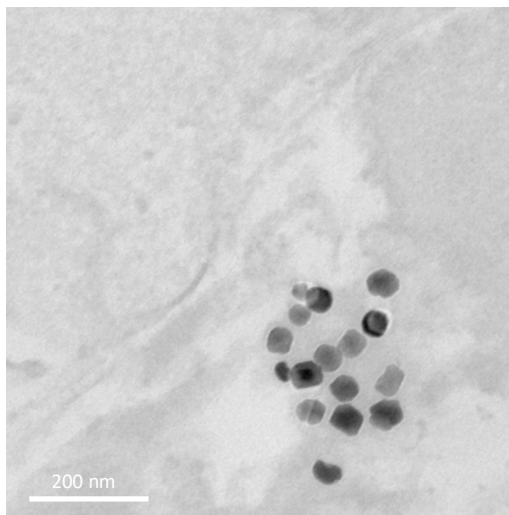
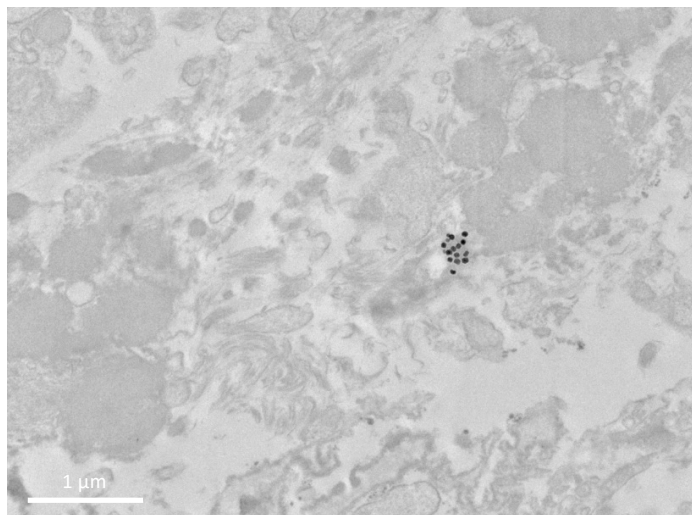


Figure 5. Histological Prussian Blue tissue staining in orthotopic tumor models after intravenous administration of ultramagnetic liposomes and without magnet application.



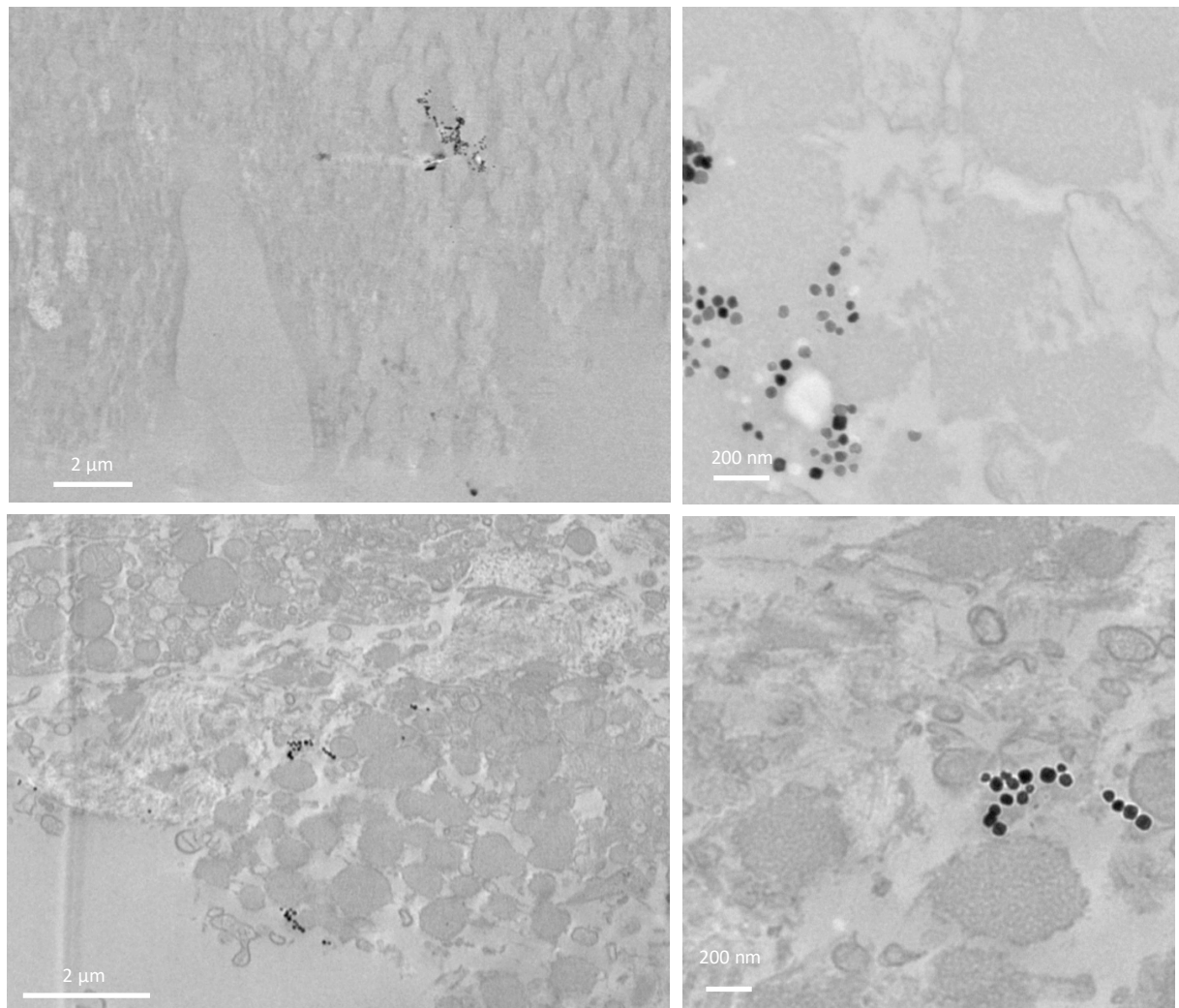


Figure 6. Transmission electron microscope imaging of orthotopic tumor models after intravenous administration of magnetosomes and upon magnet application.

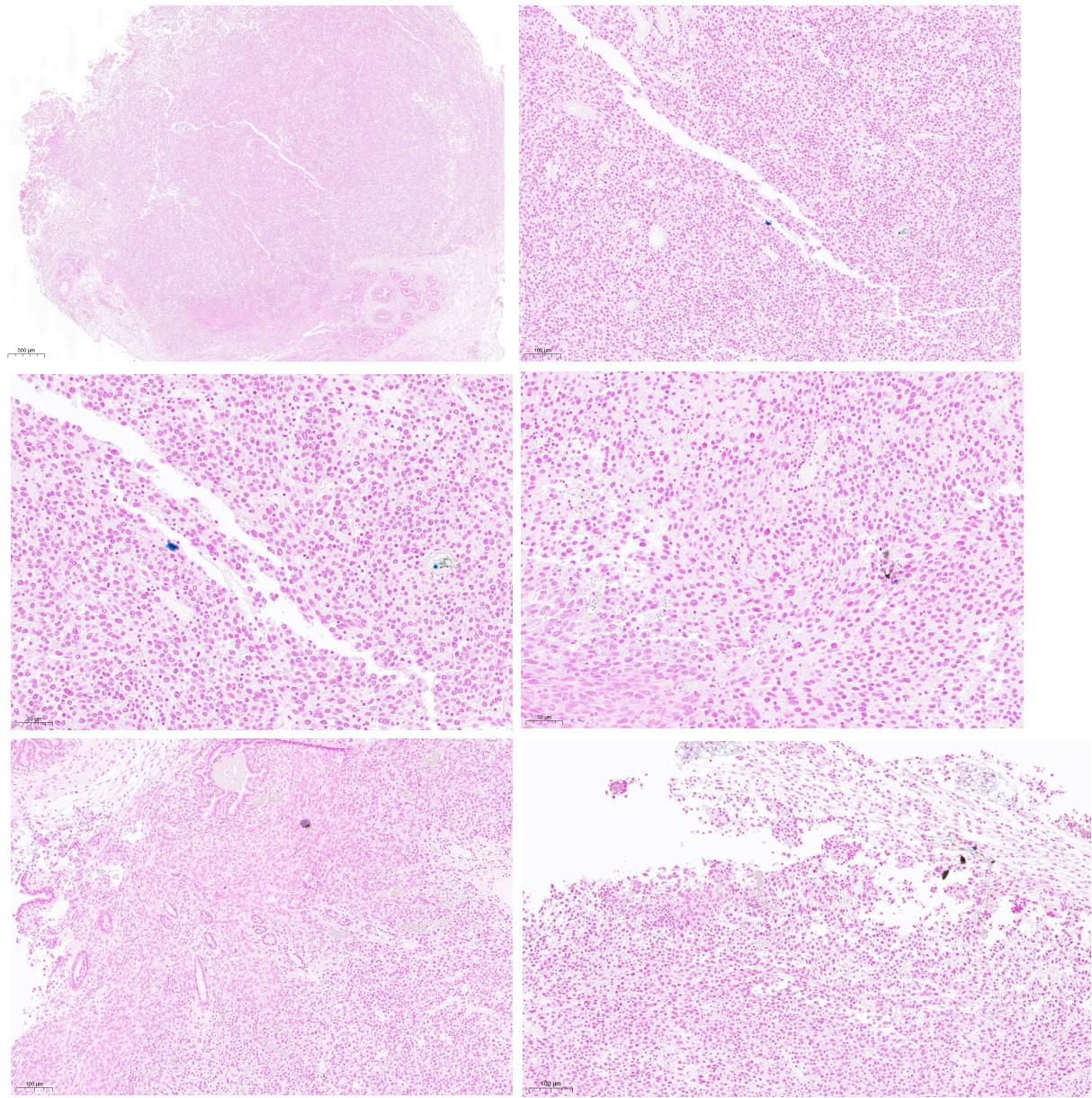


Figure 7. Histological Prussian Blue tissue staining in orthotopic tumor models after intravenous administration of magnetosomes and upon magnet application.

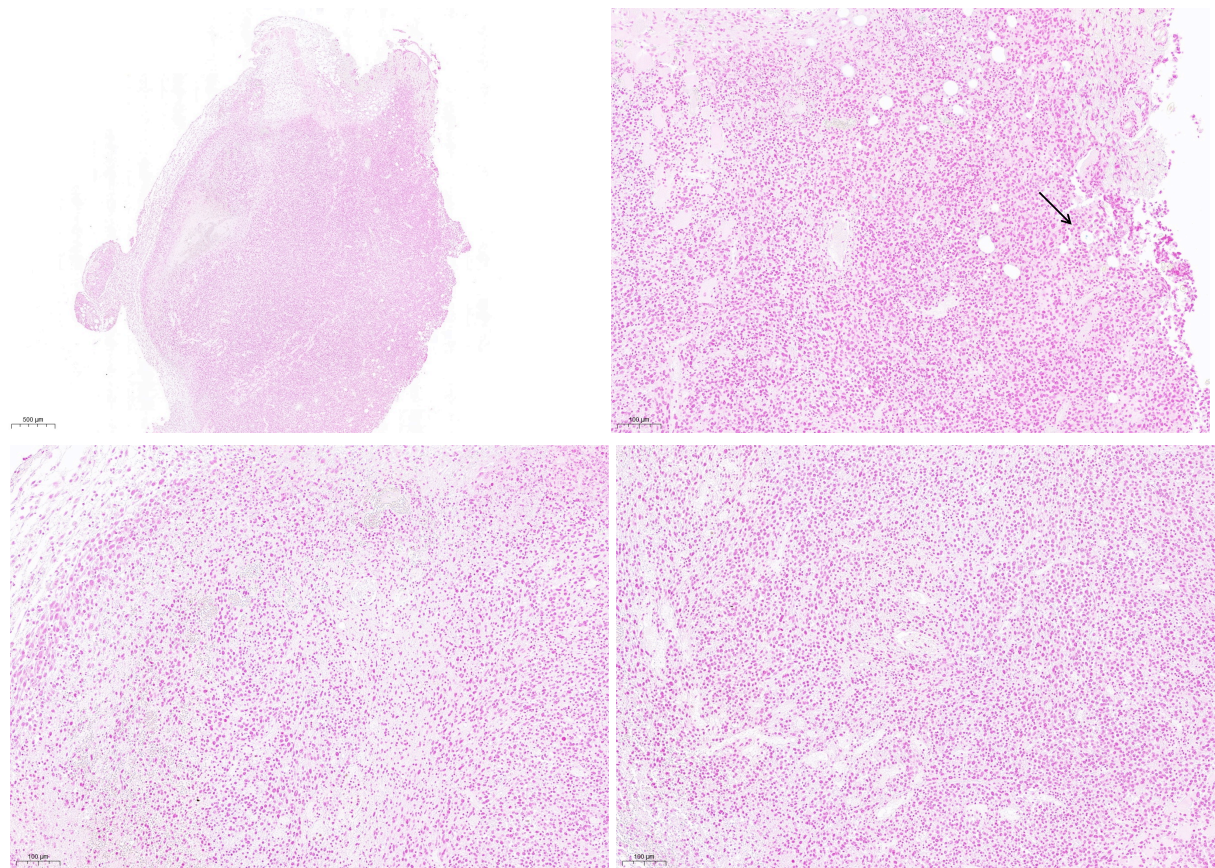


Figure 8. Histological Prussian Blue tissue staining in subcutaneous tumor models after intravenous administration of magnetosomes and without magnet application.

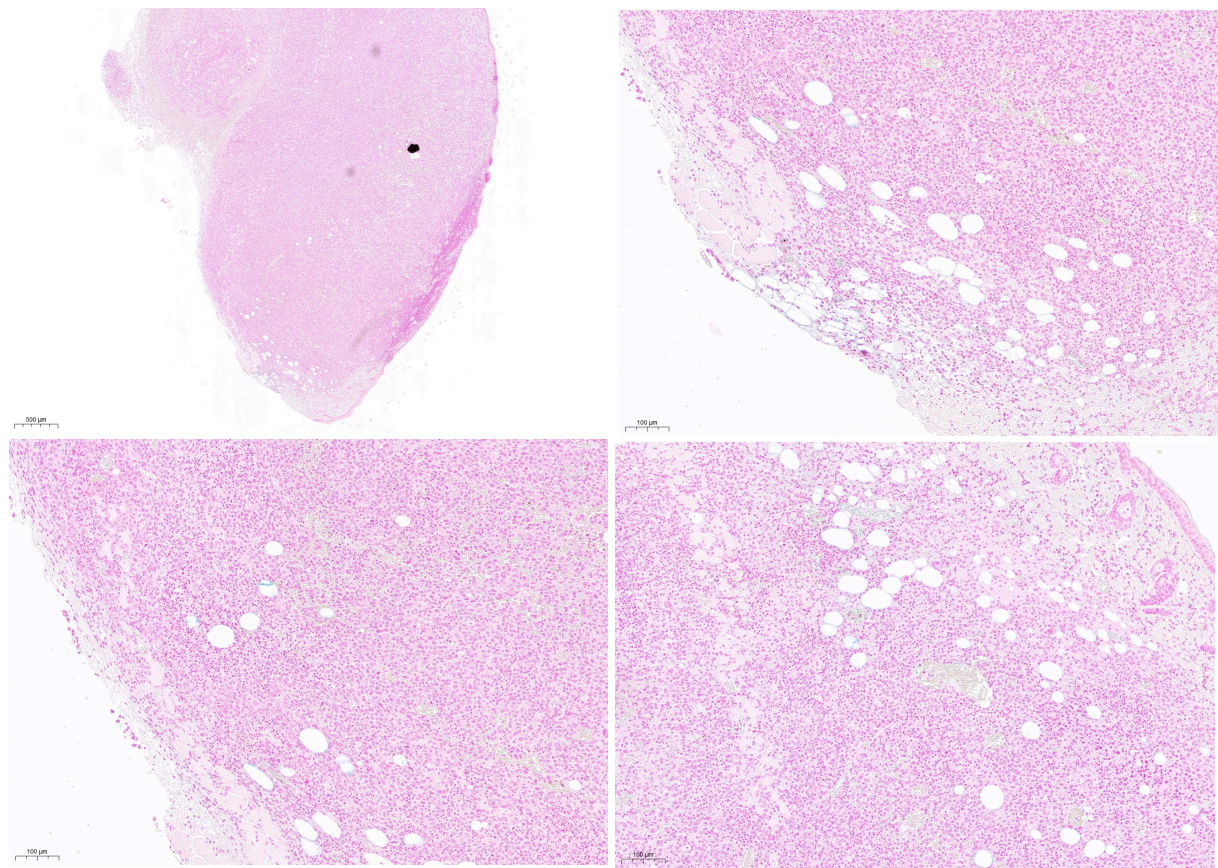


Figure 9. Histological Prussian Blue tissue staining in orthotopic tumor models after intravenous administration of magnetosomes and without magnet application.



Figure 10. Microsurgery procedure for the cell injection within the prostate in order to generate the orthotopic prostate model. Bottom right image shows the magnet application procedure followed for tumor targeting of both the ultramagnetic liposomes and magnetosomes nanoparticles.