

Electronic Supplementary Information

**Biodegradable Bismuth–Gadolinium-Based Nano Contrast Agent for
Accurate Identification and Imaging of Renal Insufficiency In Vivo**

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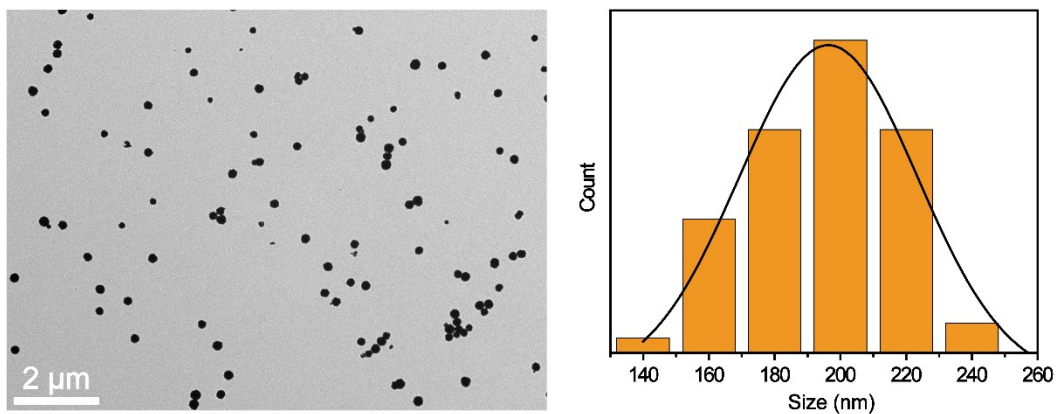


Fig.S1. TEM image of BiGd-PVP (left) and the corresponding size distribution (right).

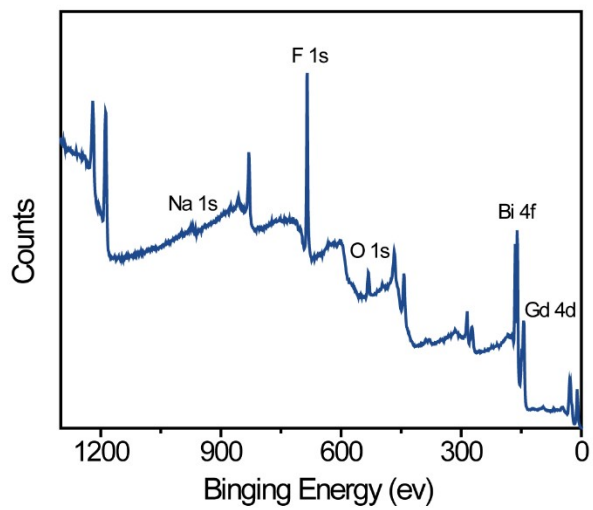


Fig.S2. XPS pattern of BiGd-PVP.

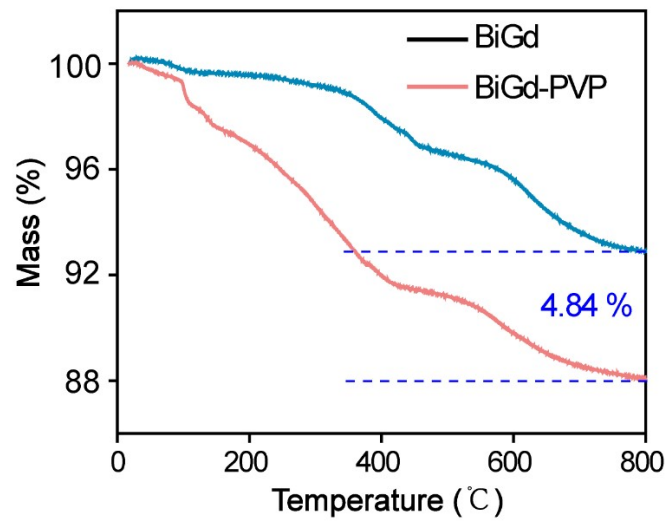


Fig.S3. TG curves of BiGd and BiGd-PVP.

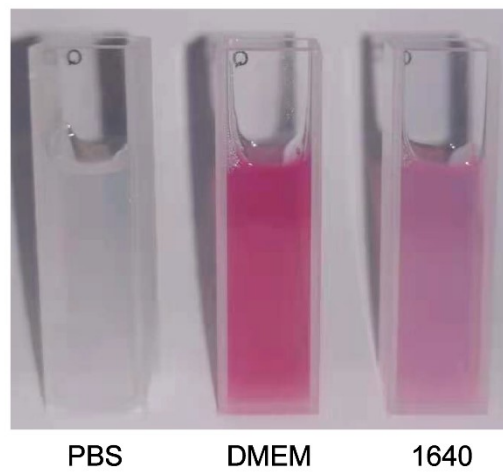


Fig.S4. Digital photos of BiGd-PVP in the different buffer solutions after 7 days (PBS: phosphate buffer saline; DMEM: dulbecco's modified eagle medium; 1640: 1640 culture medium).

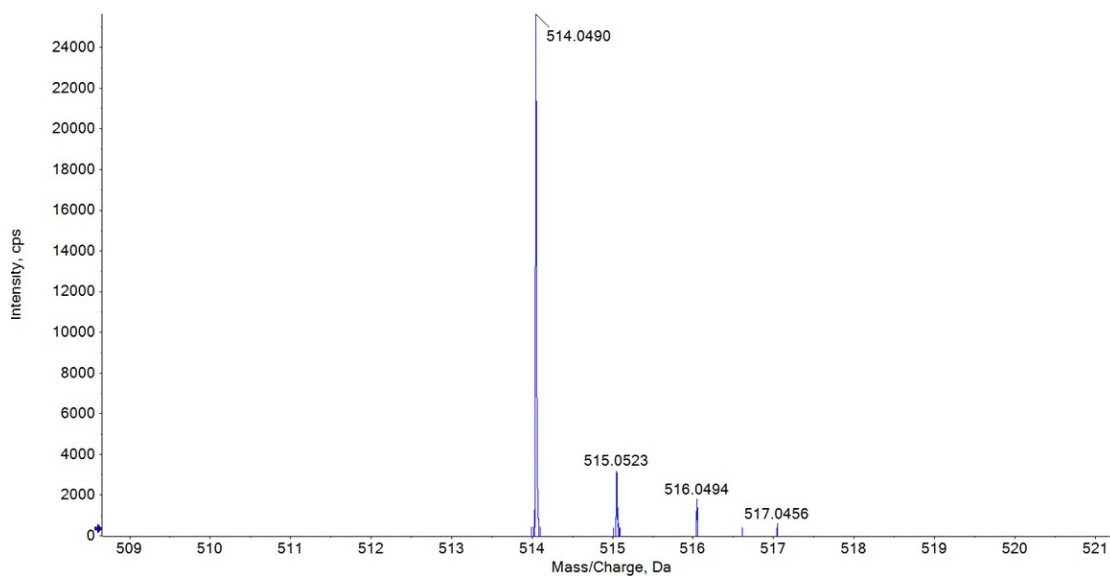


Fig.S5. HR-MS of $[\text{Bi}(\text{GSH}) - 2\text{H}]^+$.

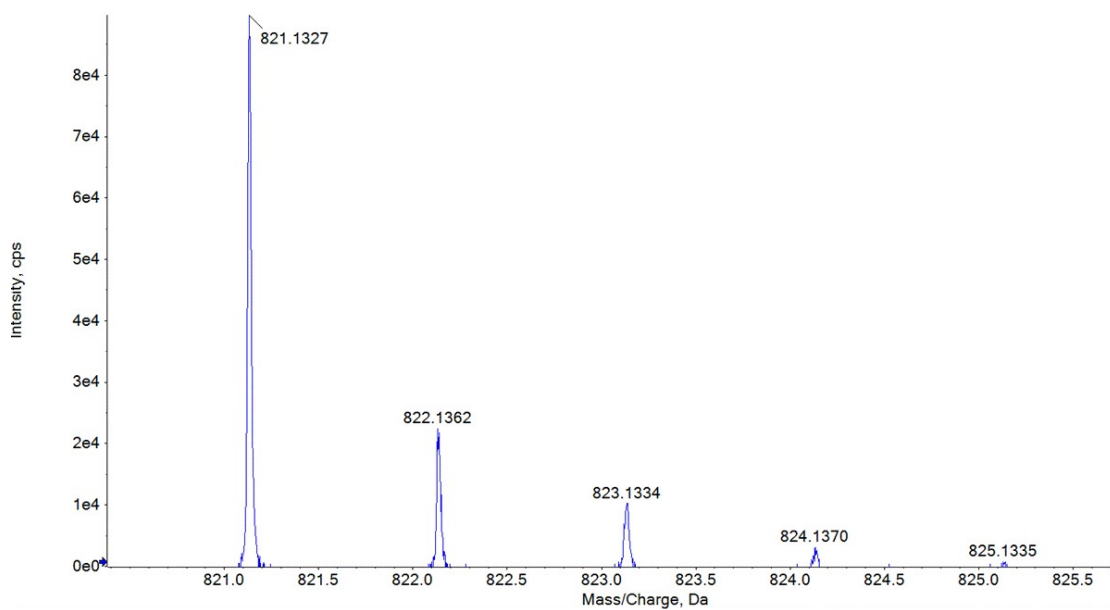


Fig.S6. HR-MS of $[\text{Bi}(\text{GSH})_2 - 2\text{H}]^+$.

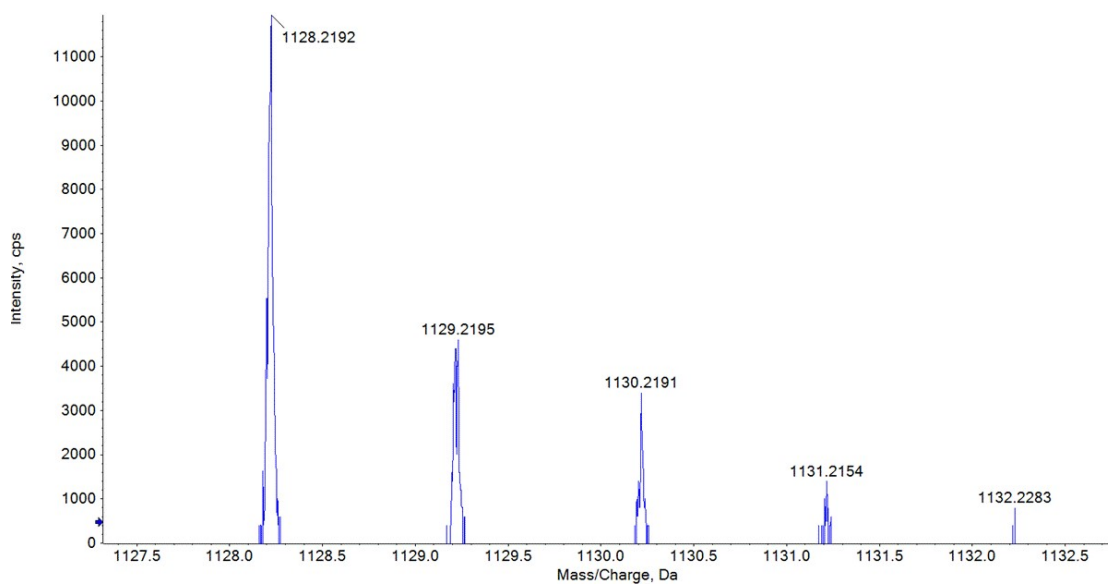


Fig.S7. HR-MS of $[\text{Bi}(\text{GSH})_3 - 2\text{H}]^+$.

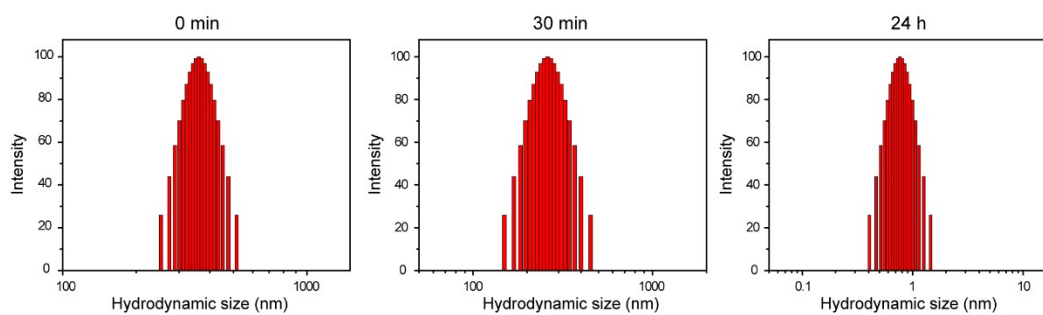


Fig.S8. The hydrodynamic size of BiGd-PVP incubated with GSH for different times.

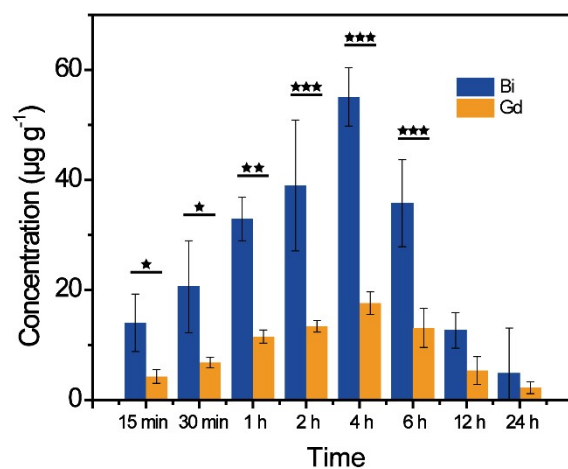


Fig.S9. The corresponding biodistribution curve over time of Bi (in Fig. 4c) and Gd (in Fig. 4d) in the kidney. The statistical analysis was analyzed through Student's t-test (*P < 0.05, **P < 0.01, and ***P < 0.001).

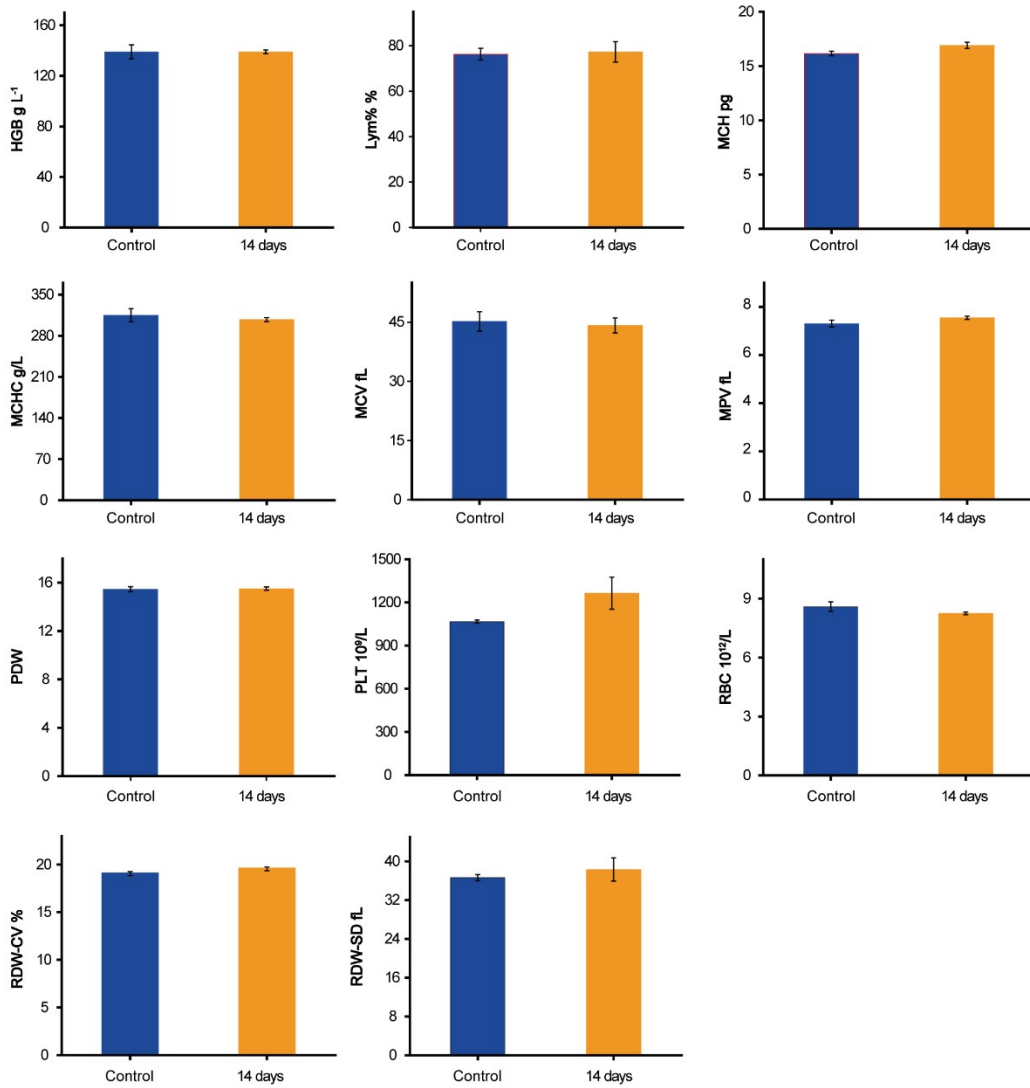


Fig.S10. Blood routine index after 14 days of intravenous injection of BiGd-PVP or PBS (Control).