

Supplementary Material

**Targeted Graphene Oxide for Drug Delivery as a Therapeutic
Nanoplatfom against Parkinson's Disease**

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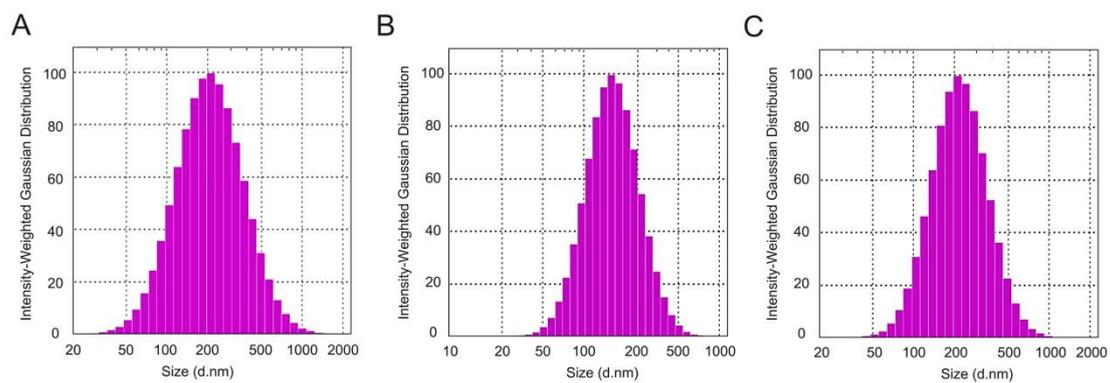


Fig. S1 (A-C) Particle size distribution of PEG-GO, GO-Pue and Lf-GO-Pue, respectively.

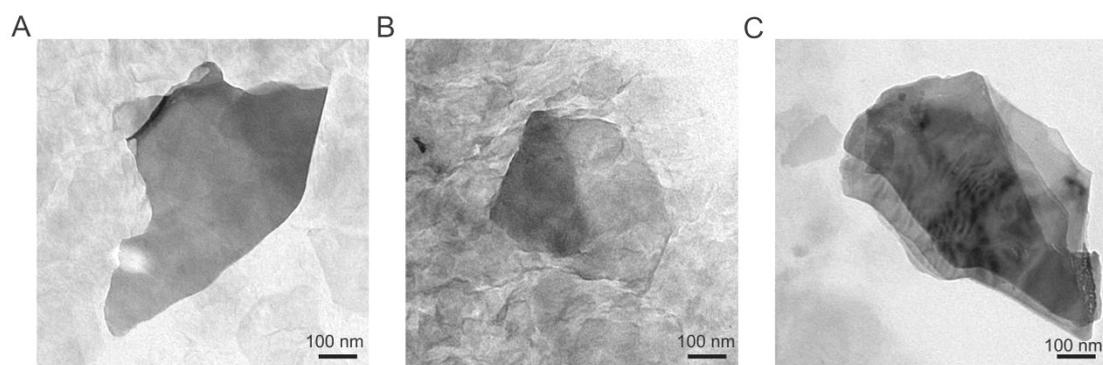


Fig. S2 (A-C) TEM image of PEG-GO, GO-Pue and Lf-GO-Pue, respectively.

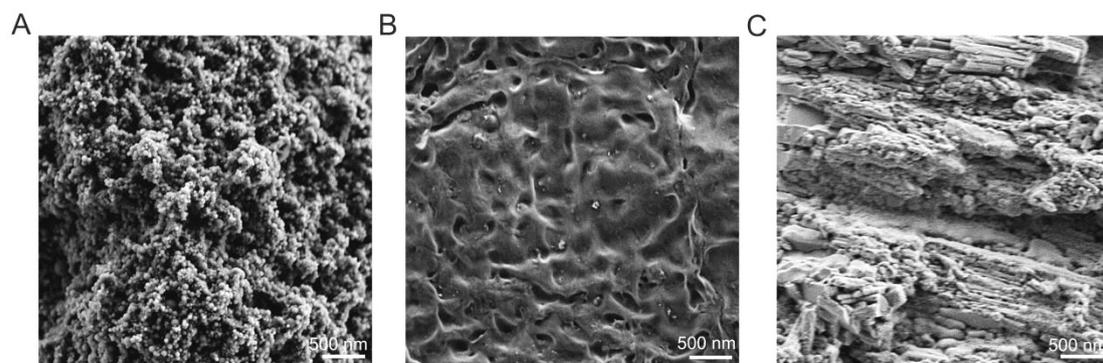


Fig. S3 (A-C) SEM image of PEG-GO, GO-Pue and Lf-GO-Pue, respectively.

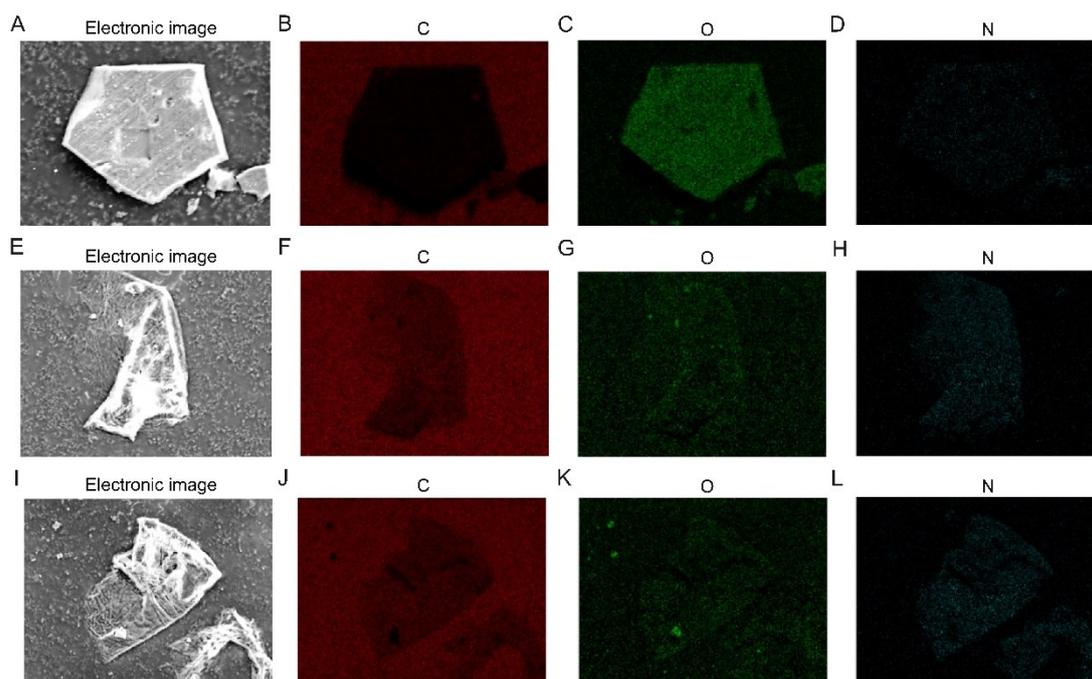


Fig. S4 (A) STEM image of PEG-GO. (B-D) C, O and N element mapping from A, respectively. (E) STEM image of GO-Pue. (F-H) C, O and N element from E, respectively. (I) STEM image of Lf-GO-Pue. (J-L) C, O and N element from I, respectively.

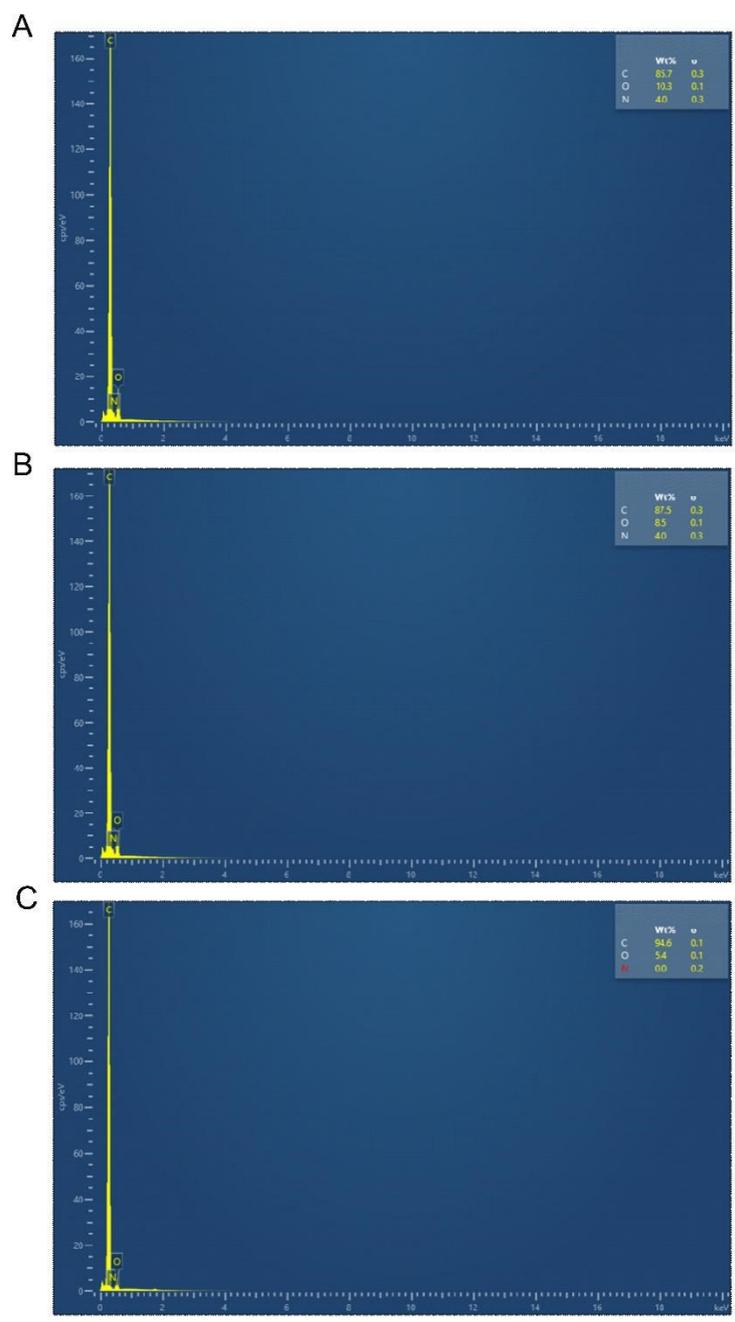


Fig. S5 (A-C) EDS spectra of PEG-GO, GO-Pue and Lf-GO-Pue, respectively.

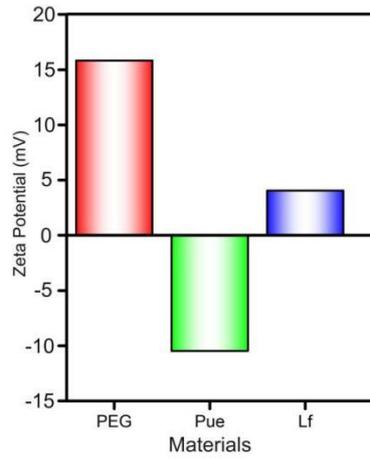


Fig. S6 Zeta potential values of PEG, Pue and Lf.

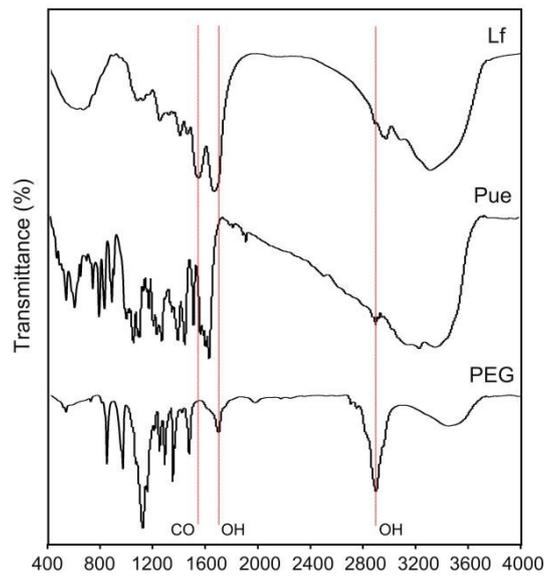


Fig. S7 FTIR spectra of PEG, Pue and Lf.

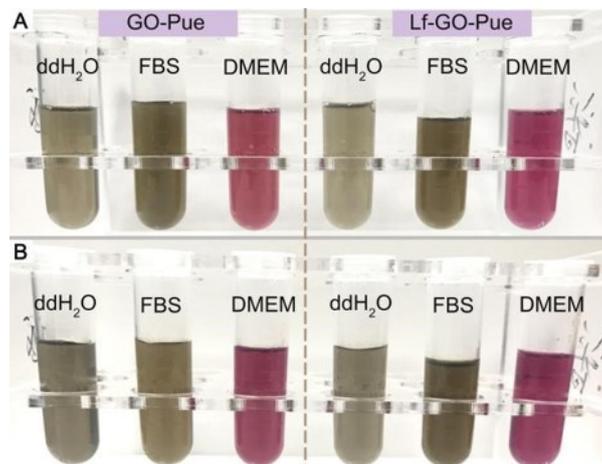


Fig. S8 The stability of GO-Pue and Lf-GO-Pue in different media at different time points. (A) 0 h, (B) 24 h.

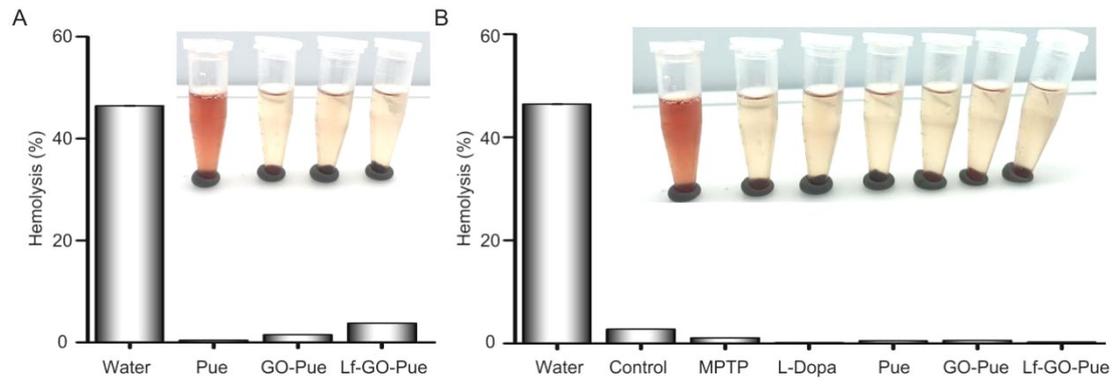


Fig. S9 Hemolysis assay in two different *in vivo* tests. (A) *In vivo* targeted test. (B) *In vivo* anti-PD pharmacodynamics evaluation.