

Cite this: DOI: 10.1039/c0xx00000x

www.rsc.org/nanoscale

PAPER

## Electronic Supplementary Information for

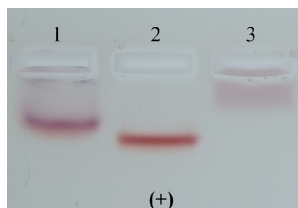
# Encapsulation of Gold Nanoparticles by Simian Virus 40 Capsids

<sup>5</sup> Tingjuan Wang,<sup>a,b</sup> Zhiping Zhang,<sup>a</sup> Ding Gao,<sup>a,b</sup> Feng Li,<sup>a</sup> Hongping Wei,<sup>a</sup> Xiaosheng Liang,<sup>a,b</sup> Zongqiang Cui<sup>\*a</sup> and Xian-En Zhang<sup>\*a</sup>

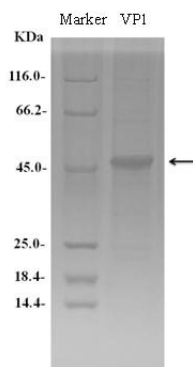
---

<sup>a</sup> State Key Laboratory of Virology, Wuhan Institute of Virology, Chinese Academy of Sciences, No.44, Xiaohongshan, Wuhan 430071, P. R. China. Fax: +86-27-87199492; Tel: +86-27-87197105; E-mail: x.zhang@wh.iov.cn and czq@wh.iov.cn

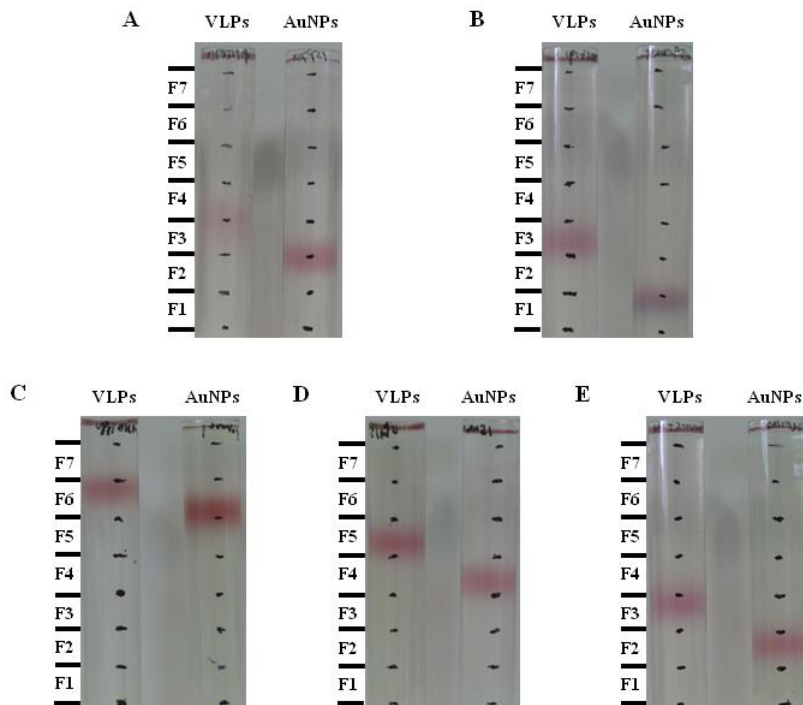
<sup>b</sup> Graduate School, Chinese Academy of Sciences, No.19, Yuquan Road, Shijingshan, Beijing 100049, P. R. China.



**Fig. S1** Agarose gel electrophoresis of 10-nm AuNPs (1), 10-nm 10T-AuNPs (2), and 10-nm mPEG750-AuNPs (3). AuNPs were loaded into 1.5% agarose gel in running buffer (45 mM tris, 45 mM boric acid, and 1 mM EDTA, pH 7.2). Electrophoresis was run for 30 min at 100 V.



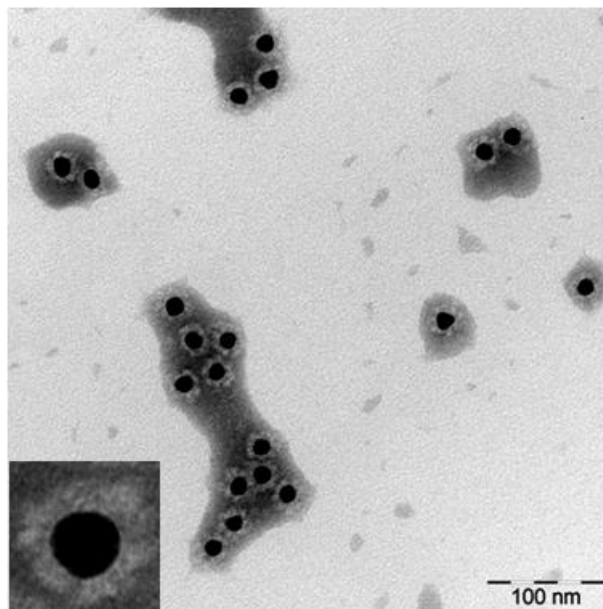
**Fig. S2** Purified VP1 examined by SDS-PAGE



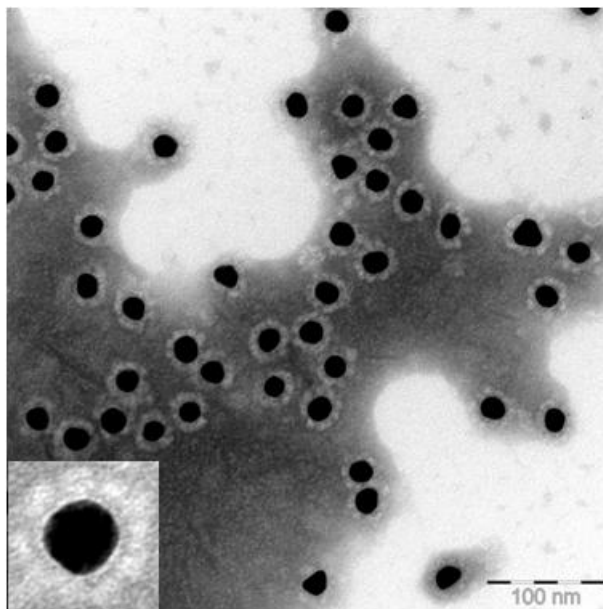
10

**Fig. S3** Images of SDGC tubes after the purification of 15-nm mPEG750-AuNPs and corresponding VLPs (A), 20-nm mPEG750-AuNPs and corresponding VLPs (B), 10-nm 10T-AuNPs and corresponding VLPs (C), 15-nm 10T-AuNPs and corresponding VLPs (D), and 20-nm 10T-AuNPs and corresponding VLPs (E).

5

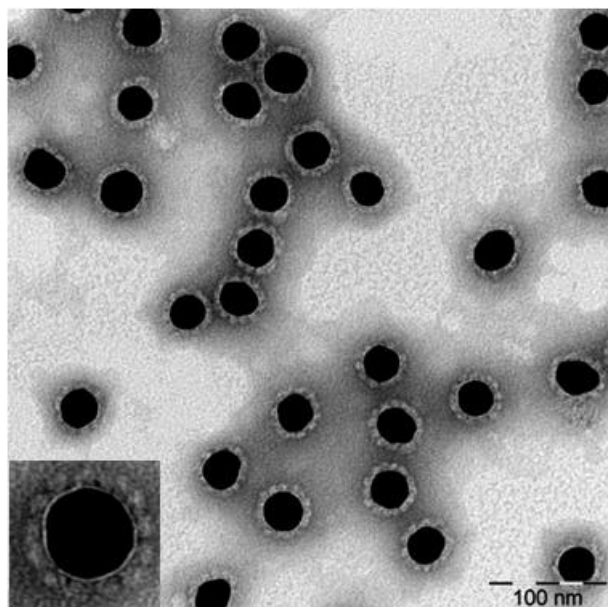


**Fig. S4** TEM images of SV40-Au VLPs containing 15-nm mPEG750-AuNPs after purification by SDGC. Scale bar: 100 nm.

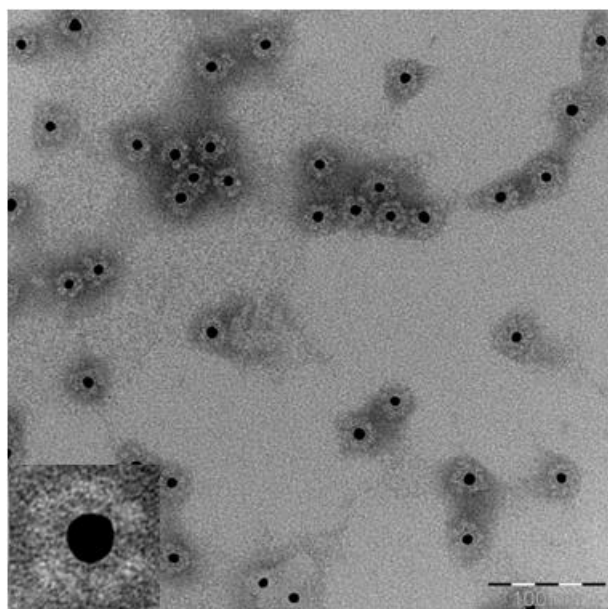


10

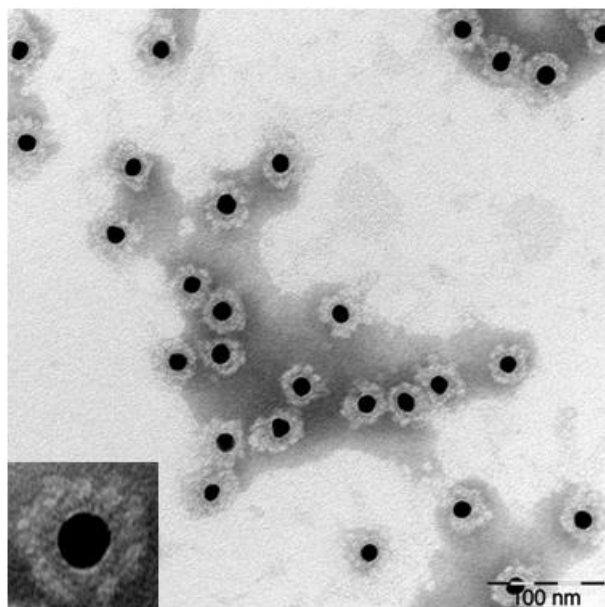
**Fig. S5** TEM images of SV40-Au VLPs containing 20-nm mPEG750-AuNPs after purification by SDGC. Scale bar: 100 nm.



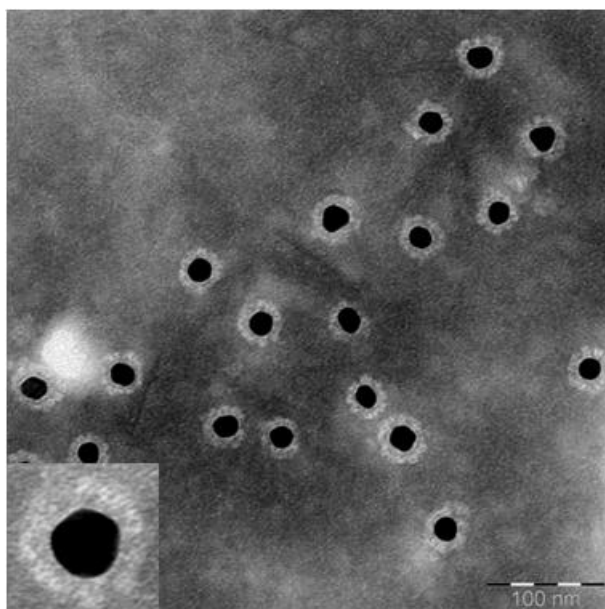
**Fig. S6** TEM images of SV40-Au VLPs containing 30-nm mPEG750-AuNPs after purification by SDGC. Scale bar: 100 nm.



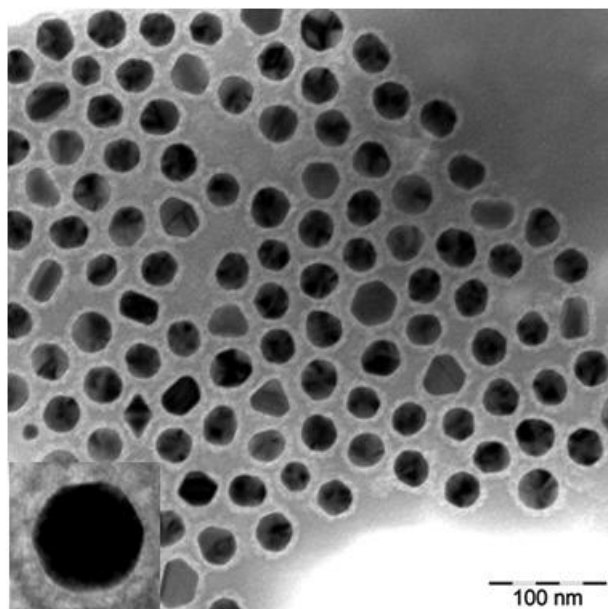
**Fig. S7** TEM images of SV40-Au VLPs containing 10-nm 10T-AuNPs after purification by SDGC. Scale bar: 100 nm.



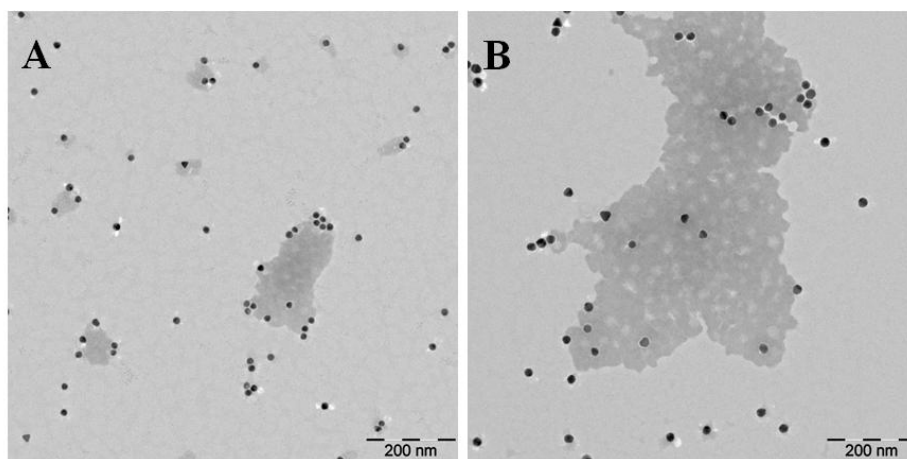
**Fig. S8** TEM images of SV40-Au VLPs containing 15-nm 10T-AuNPs after purification by SDGC.  
Scale bar: 100 nm.



<sup>5</sup> **Fig. S9** TEM images of SV40-Au VLPs containing 20-nm 10T-AuNPs after purification by SDGC.  
Scale bar: 100 nm.



**Fig. S10** TEM images of SV40-Au VLPs containing 30-nm 10T-AuNPs after purification by SDGC. Scale bar: 100 nm.



**Fig. S11** TEM images of assembly mixture of BSA and AuNPs. Scale bar: 200 nm. (A) 15-nm mPEG750-AuNPs; (B) 20-nm 10T-AuNPs.