Electronic Supplementary Material (ESI) for Dalton Transactions. This journal is © The Royal Society of Chemistry 2019

## **Dual-Action Organoplatinum Polymeric Nanoparticles Overcoming Drug Resistance in Ovarian Cancer**

Amarasooriya M. D. S. Jayawardhanaa,<sup>a</sup> Zhihan Qiu,<sup>a</sup> Susan Kempf,<sup>a</sup> Han Wang,<sup>a</sup> Mitchell Miterko,<sup>a</sup> David J. Bowers,<sup>a</sup> and Yao-Rong Zheng \*a

- a. Department of Chemistry and Biochemistry, Kent State University, 224 Williams Hall, Kent, Ohio 44242.
- \* Corresponding author. Email: <a href="mailto:yzheng7@kent.edu">yzheng7@kent.edu</a>

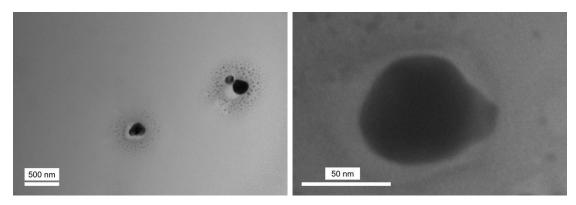


Fig S1. Representative TEM images of OPNPs.

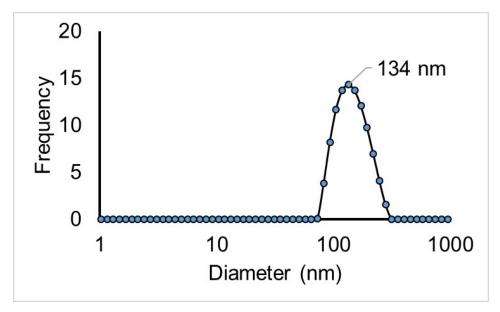


Fig S2. DLS of OPNPs in PBS.

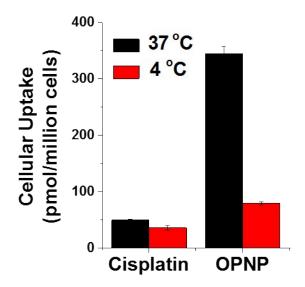
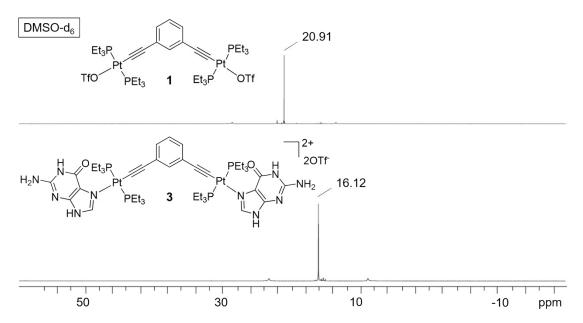


Fig S3. Cellular uptake of cisplatin and OPNPs in A2780cis.



**Fig S4.** <sup>31</sup>P{<sup>1</sup>H} NMR spectra of Compound **1** and the product (**3**) from the mixture of Compound **1** and guanine in DMSO-d<sub>6</sub> at r.t..

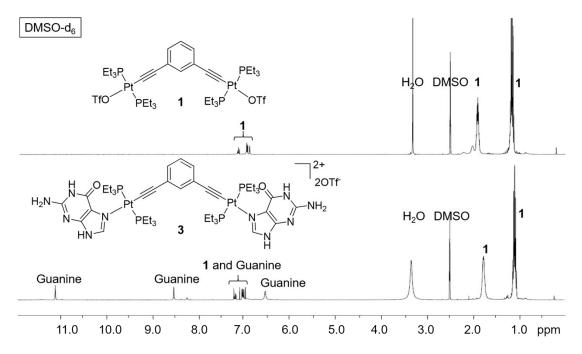


Fig S5. <sup>1</sup>H NMR spectra of Compound 1 and the product (3) from the mixture of Compound 1 and guanine in DMSO-d<sub>6</sub> at r.t..

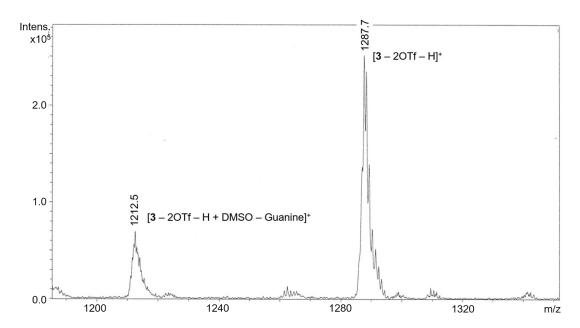
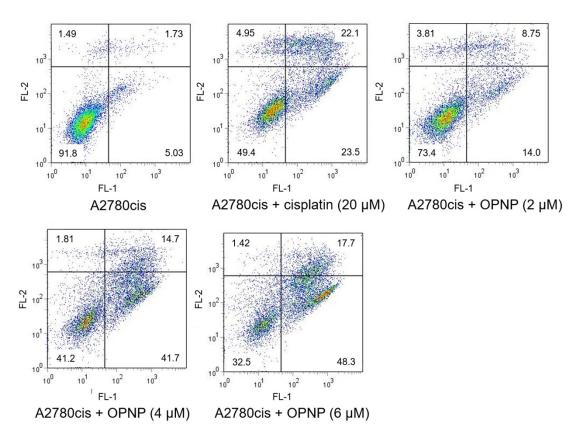


Fig S6. ESI-MS spectrum of the product (3) from the mixture of Compound 1 and guanine.



**Fig S7.** Flow cytometric analysis of apoptic events in A2780cis cells treated with cisplatin or OPNPs for 72 h.