Supporting information for

## PEGylated gene carriers in serum under shear flow

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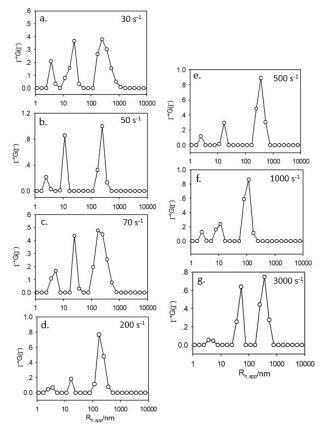


Fig.S1 Size distribution of PEG<sub>10k</sub>-PLL/salmon DNA/FBS after being sheared for 2 hrs at different shear rate of 30 s<sup>-1</sup>(a), 50 s<sup>-1</sup>(b), 70 s<sup>-1</sup>(c), 200 s<sup>-1</sup>(d), 500 s<sup>-1</sup>(e), 1000 s<sup>-1</sup>(f), 3000 s<sup>-1</sup>(g). The +/- ratio of PEG<sub>10k</sub>-PLL /salmon DNA complex is 20. Scattered angle: 30°.

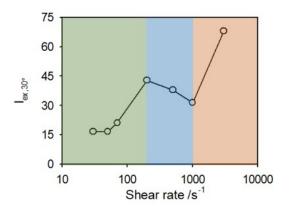


Fig.S2 Shear rate dependence of  $I_{ex}$  of PEG<sub>10k</sub>-PLL/ salmon DNA/FBS after being sheared for 2 hrs. The +/- ratio of PEG<sub>10k</sub>-PLL /salmon DNA complex is 20. Scattering angle: 30°.

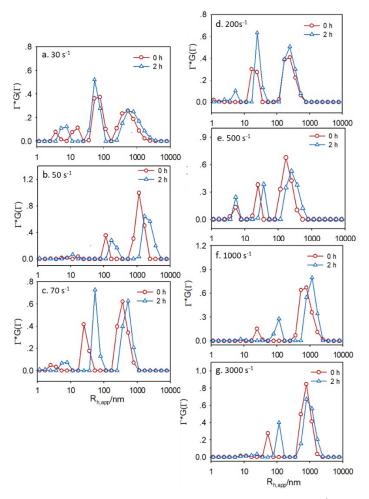


Fig.S3 Size distribution of PEG<sub>5k</sub>-PLL/DNA/FBS 0 h and 2 hrs after treatment at shear rates of 30 s<sup>-1</sup>(a), 50 s<sup>-1</sup>(b), 70 s<sup>-1</sup>(c), 200 s<sup>-1</sup>(d), 500 s<sup>-1</sup>(e), 1000 s<sup>-1</sup>(f), 3000 s<sup>-1</sup>(g). Scattered angle: 30°

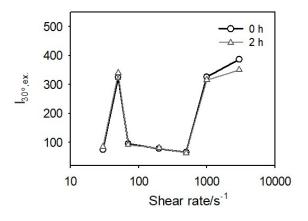


Fig. S4 The excess scattered intensity of PEG<sub>5k</sub>-PLL/DNA/FBS 0 hr and 2 hrs after treatment at different shear rates.