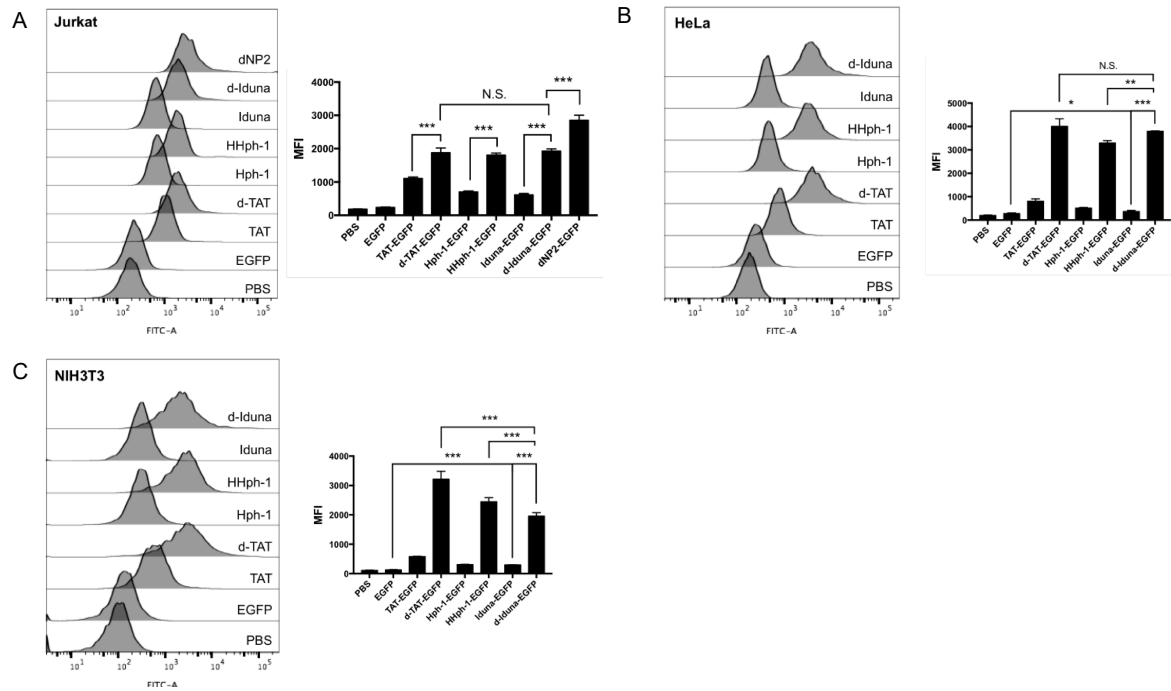
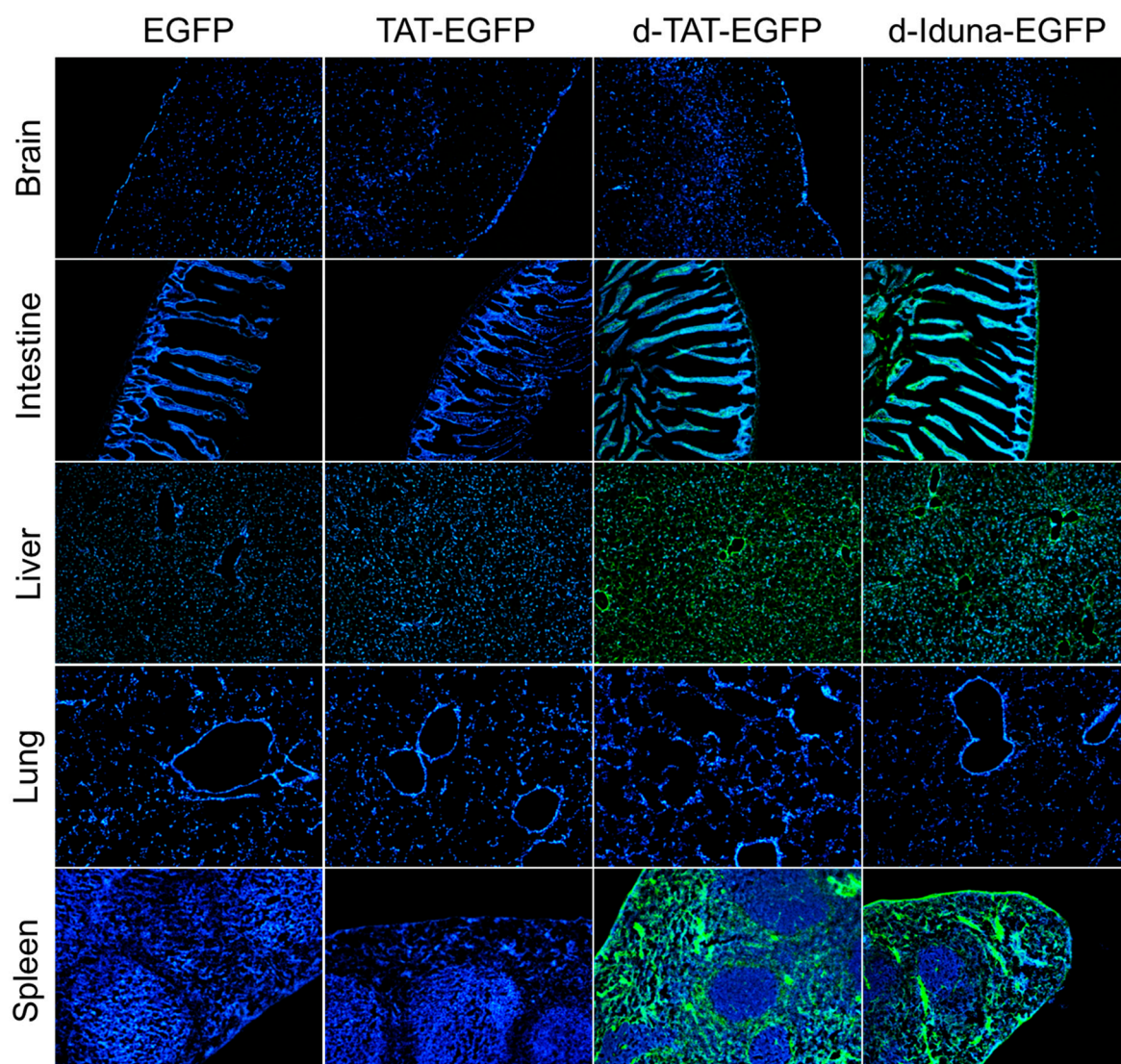


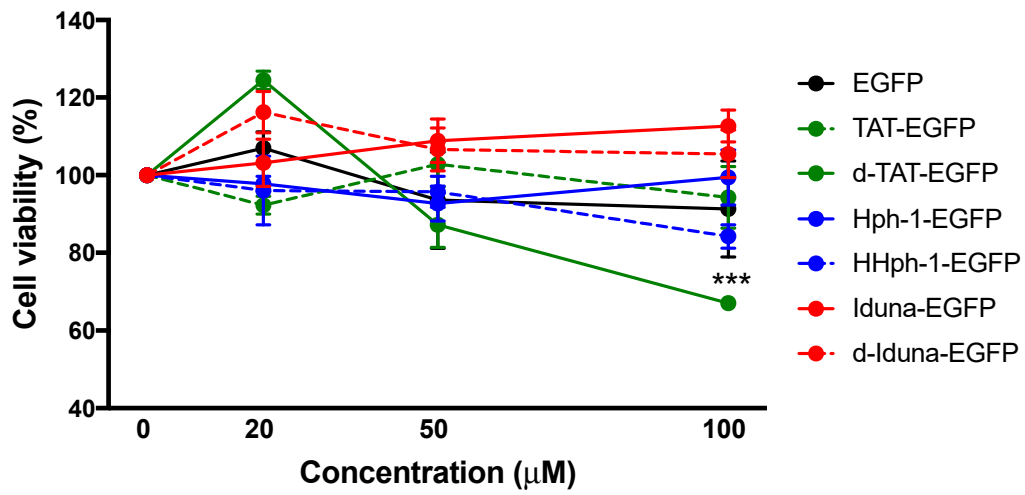
# Supplementary



**Figure S1.** In vitro delivery efficiency of single form or tandem repeat form of Iduna derived sequence and other CPPs. Jurkat (A), HeLa (B) or NIH3T3 (C) cells were incubated with 10  $\mu$ M of Iduna-EGFP, d-Iduna-EGFP and other controls for 1 hour at 37  $^{\circ}$ C. Intracellular fluorescence was analyzed by flow cytometry. \*  $p < 0.05$ , \*\*  $p < 0.005$ , \*\*\*  $p < 0.001$ ,  $n = 3$ .



**Figure S2.** In vivo tissue distribution of d-Iduna-EGFP and d-TAT-EGFP upon intravenous injection into mice. 5 mg of d-Iduna-EGFP and other control proteins were injected into 6–8 weeks old mice intravenously for 2 h. Tissue fluorescence were analyzed by fluorescence microscopy with 100× magnification.



**Figure S3.** Cytotoxicity test of Iduna derived sequence. HeLa cells were incubated with 20, 50 and 100  $\mu\text{M}$  of d-Iduna-EGFP and other control proteins for 24 h. The cell viability was measured by cell counting kit-8 (CCK8) assay.  $p$ -value of 100  $\mu\text{M}$  of d-TAT-EGFP was compared with 100  $\mu\text{M}$  of d-Iduna-EGFP. \*\*\*  $p < 0.001$ ,  $n = 3$ .