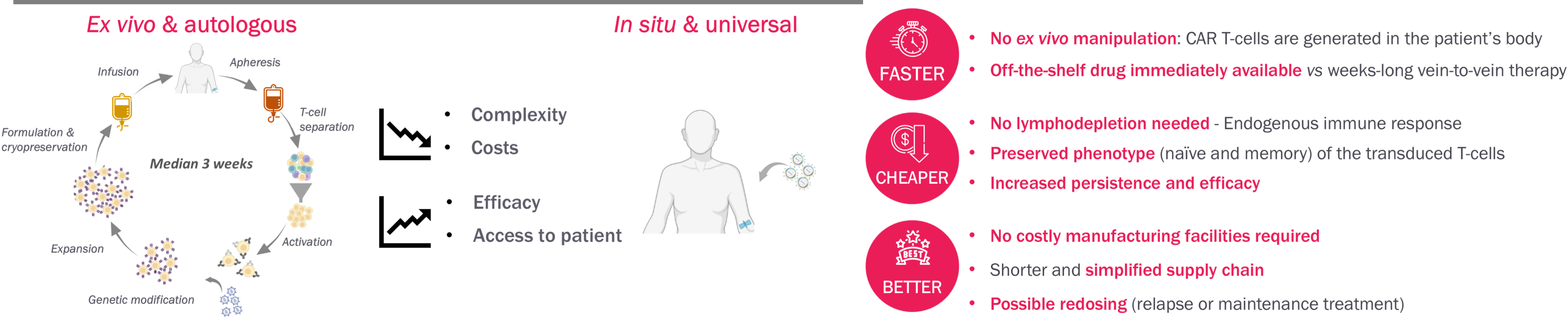
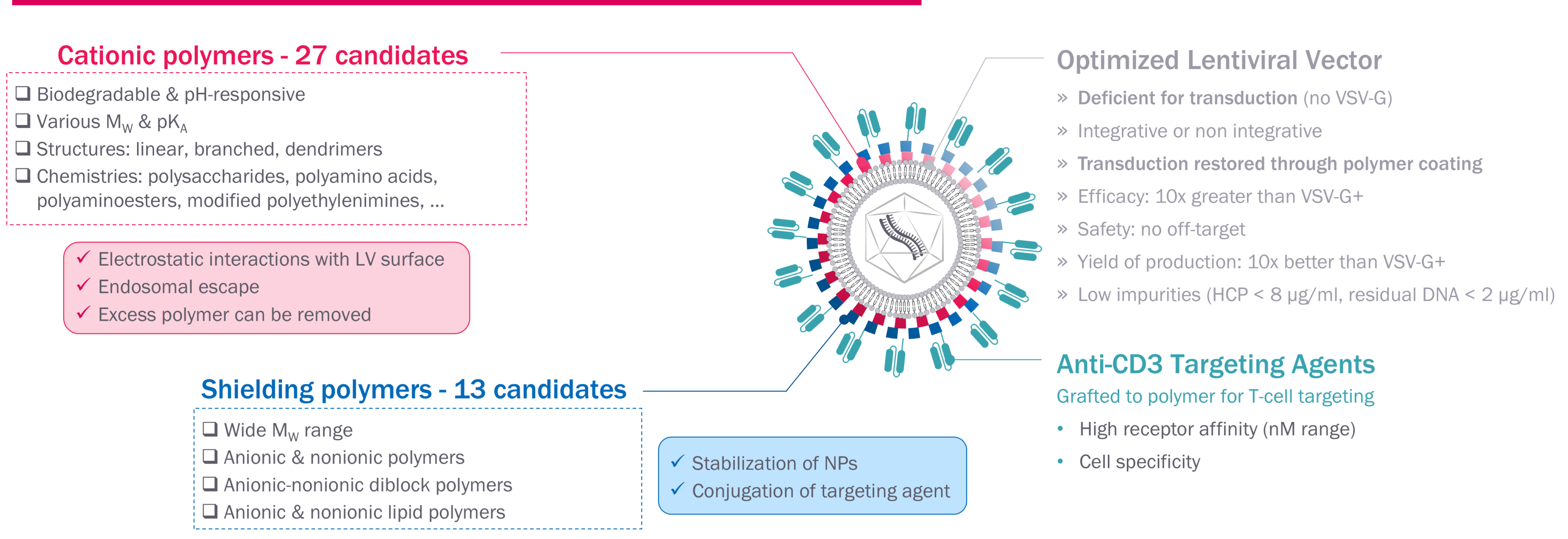


In situ CAR-T therapies - Our innovation



Lentivector-based nanoparticles platform

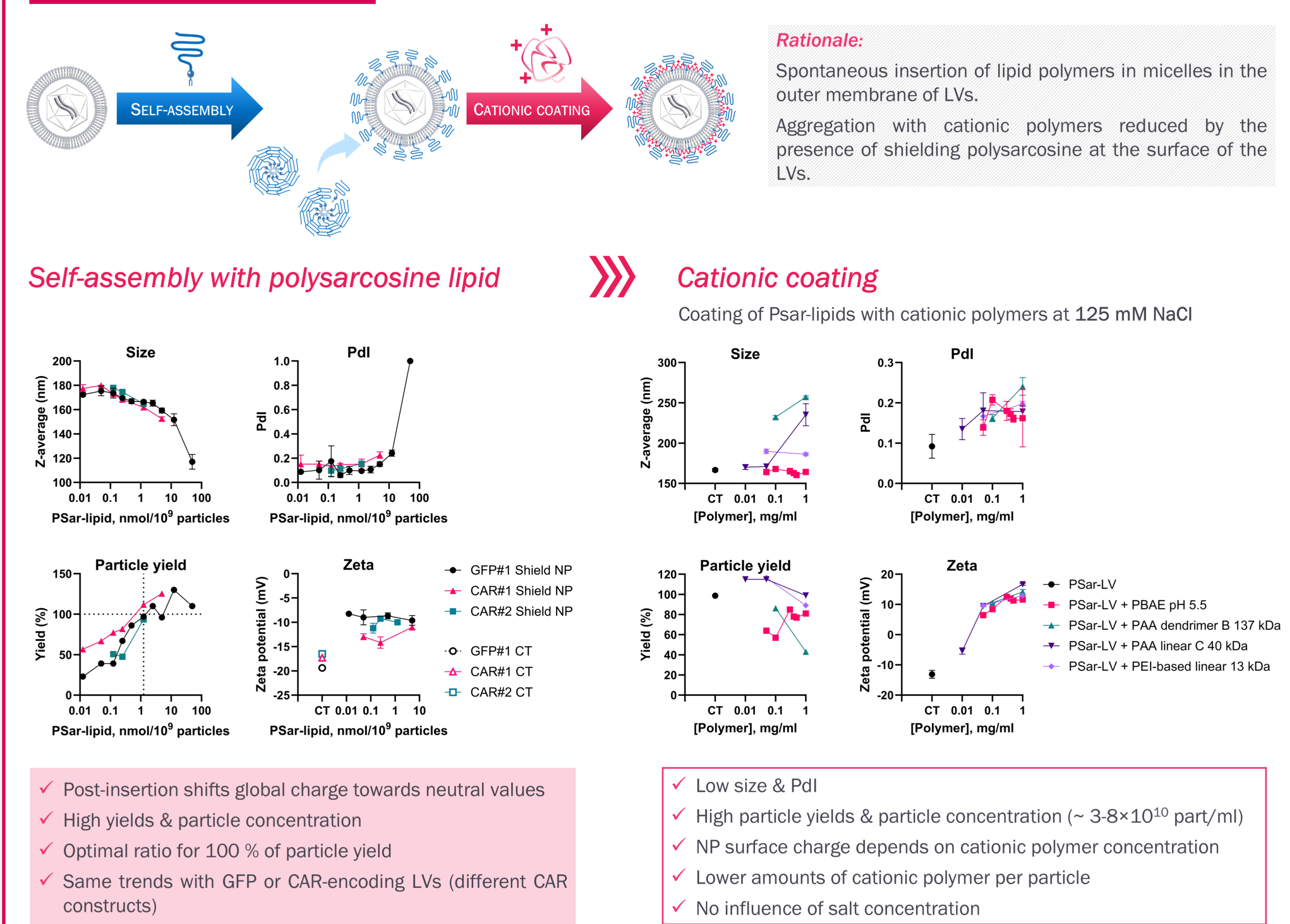


LV surface modification strategies - Biophysical & Biochemical challenges

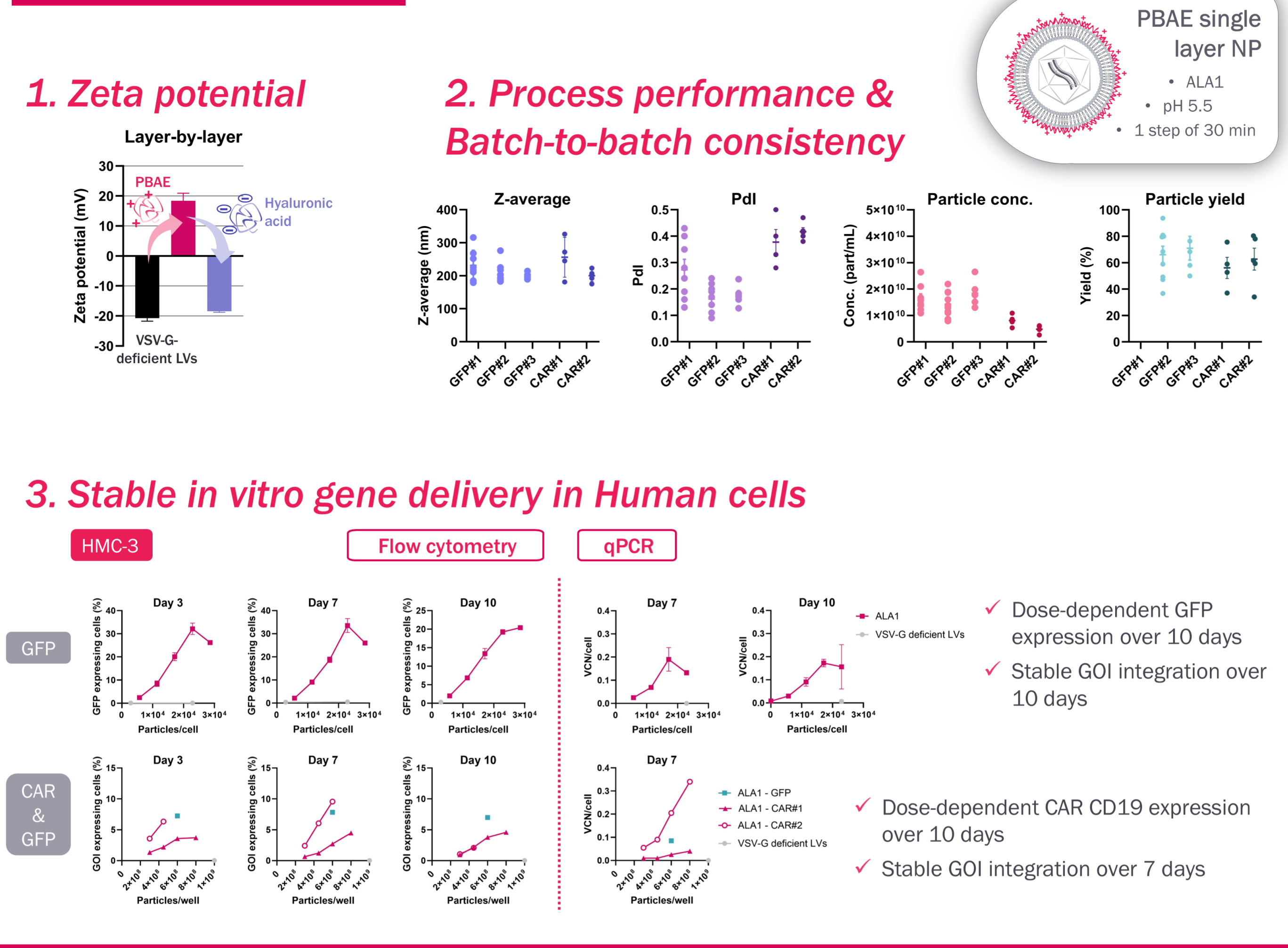
Layer-by-Layer



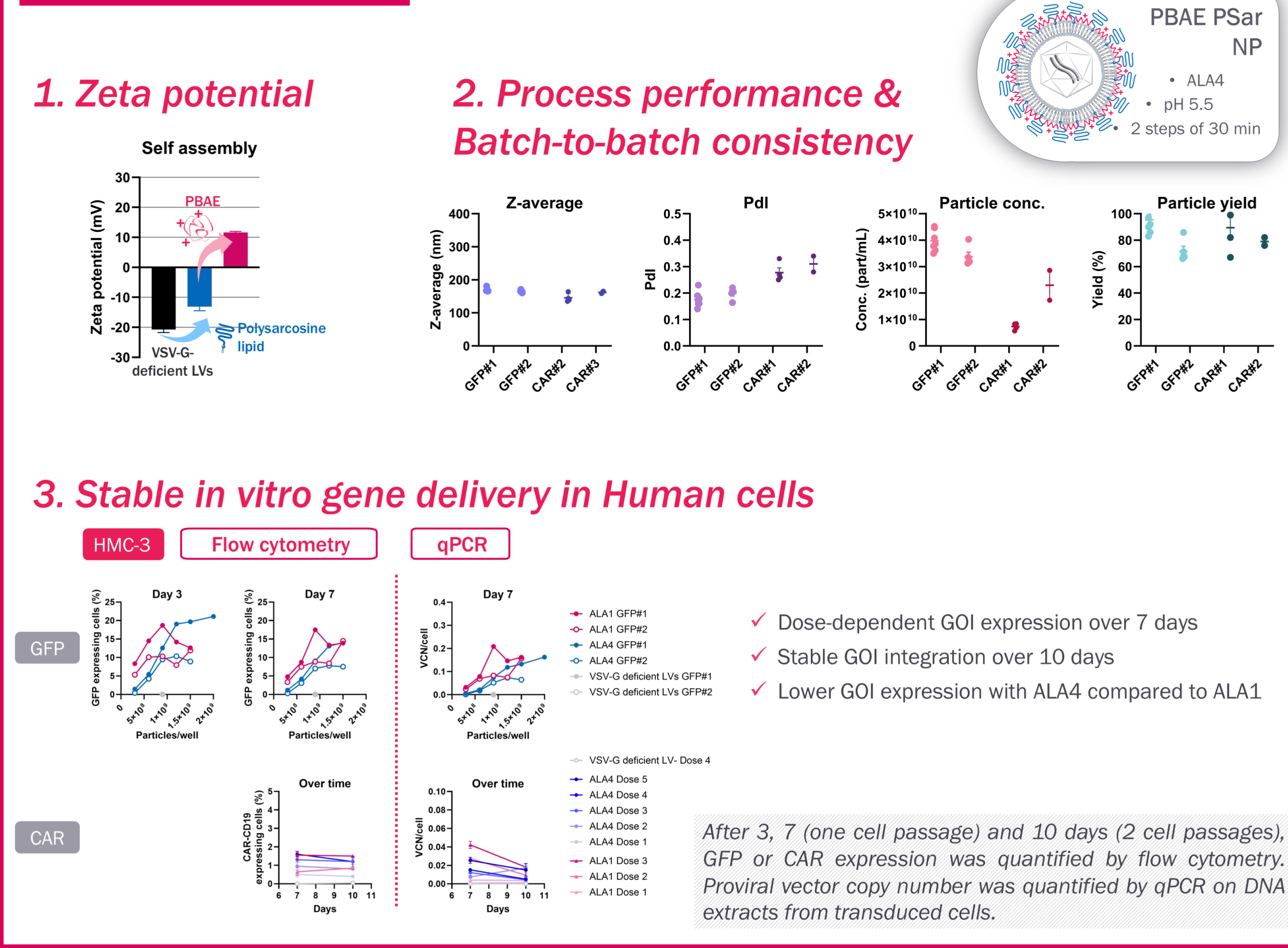
Self-assembly



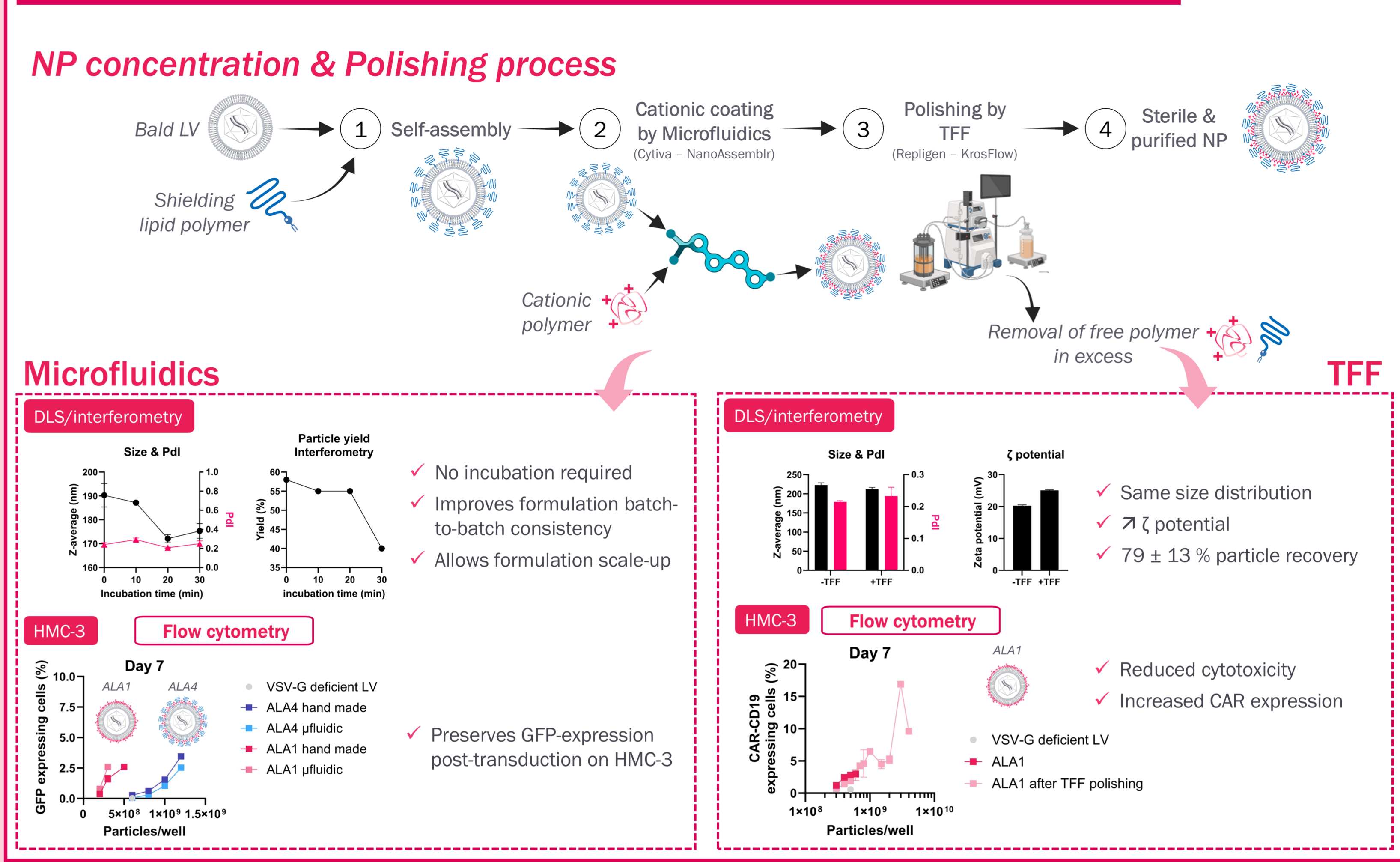
Layer-by-Layer



Self-assembly



A GMP-compliant NP manufacturing process



Conclusion

- Robust nanoparticle formulations** compatible with LV payloads encoding intracellular and surface GOIs
- Non-targeting nanoparticles** efficiently and stably transduce human cells *in vitro*
- GMP-compliant microfluidics and TFF** processes successfully integrated into nanoparticle manufacturing

Ongoing & future studies

- Optimization of CD3-targeting nanoparticles:** bioconjugate selection, density,...
- Biodistribution and efficacy** studies in humanized mouse models
- Application of CD3-targeting nanoparticles to accelerate **ex vivo manufacturing** of CD19-CAR T cells

WORK IN PROGRESS