Impacts of flexibility of SPs on mAb capture

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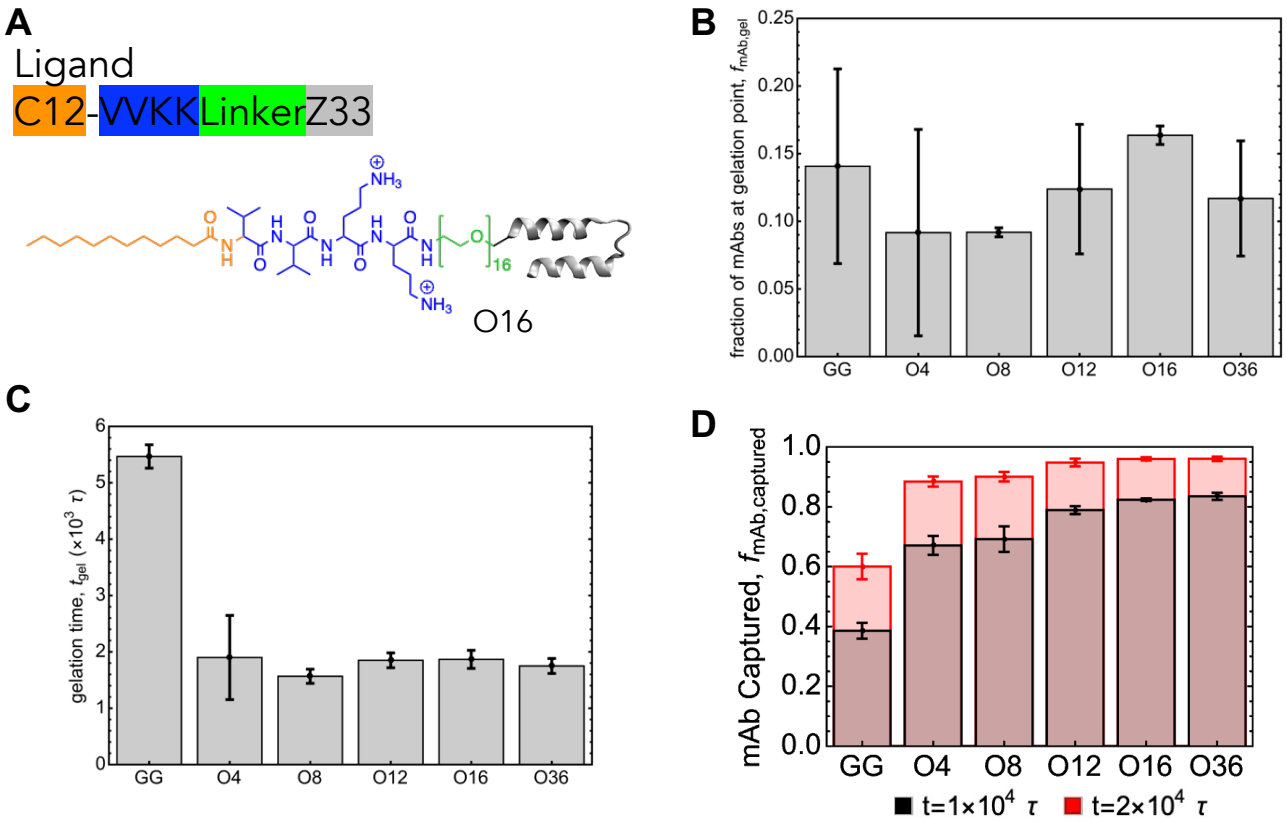
Optimizing the separation and purification of therapeutic proteins from biological resources benefits industrial manufacturing of biologics in an efficient and cost-effective manner.

Our work indicates that increasing the flexibility and accessibility of Z33 peptides by varying linker design promotes the affinity binding kinetics as well as the crosslinking efficiency, resulting in higher efficiency and effectiveness in antibody capturability.

Li, Y.; *et al., in preparation*



DPD simulations of SP-mAb mixtures with different ligand molecules under no salt conditions. (A) Chemical structure and key design components of ligand molecule (O16). (B) The fraction of mAb captured at gelation point. (C) Gelation time for mixtures containing different ligand molecules. (D) The fraction of captured mAbs.

Outreach events

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Annie Gomez, a graduate student in our group, is the co-lead of Junior Science Club at the Pedersen-McCormick Boys and Girls Club in Chicago. Every Friday afternoon from October to May, a range of STEM experiments are conducted with elementary school ages 6-10 to expose and interest them in the sciences.

Brandon Onusaitis, another graduate student in our group, participated in Jr. Science Cafes at the Museum of Science and Industry in Chicago. He shared his STEM journey with over 50 5th grade students and conducted a variety of experiments with them.