

Polyelectrolytes are particularly interesting for drug delivery and biomedical imaging because their ionically charged nature enables water solubility or amphiphilic behavior that guides their surface interactions with cells and tissues. Along with surface charge, hydrogen bonding and hydrophobic interactions can lead to nanoparticles that bind with strong affinity for certain target tissues. Polyelectrolyte nanolayers that have specificity for tumor cell types can aid in transforming a 'cold' immune environment to an active one for immunotherapy. We can deploy these layered nanoparticles to deliver siRNA and mRNA to specific cell types to treat disease, including ovarian cancer which is a special focus in the Hammond Lab, and other disease types.



## MAKING STICKY PARTICLES FOR BETTER MEDICINE

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1-2pm, 66-360

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