

## Click Chemistry for Nanomedicine Cancer Targeting

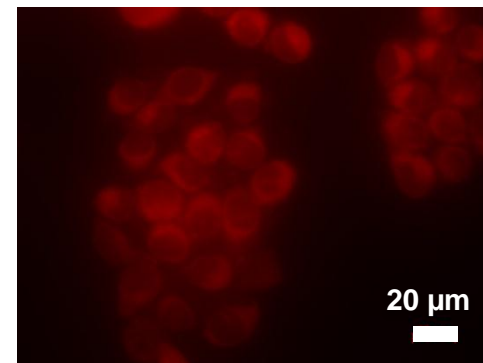
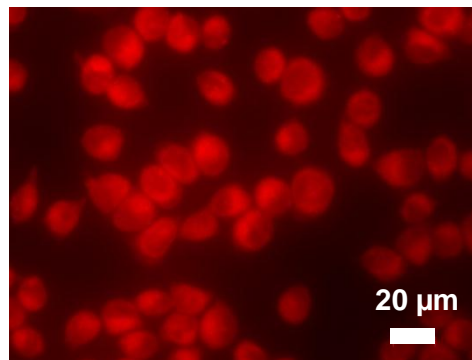
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### Objective

- The goal of this research is to develop a new cancer-targeting strategy through spontaneous, reagent-free “click chemistry” for cancer-specific drug delivery and cancer treatment.

### Research Highlights

- Active targeting of functionalized nanoparticles (NPs) to the metabolically labeled cancer cells.
- Higher accumulation of NPs in tumors.
- Increased in vivo efficacy and lower immune response.



Labeling live HeLa cells using click chemistry

### Future Research

- By incorporation of controlled chemistry and engineering principles; I will develop a novel drug delivery system and cancer targeting strategy which can lead to a promising in vivo cancer therapy method.
- Although cancer targeting has been attempted for over 100 years, but there is no strategy that allows successful cancer targeting as of today. I believe this step-wise cancer targeting strategy is highly likely achievable in vivo and could be applied for diagnostic and imaging applications in cancer research too.