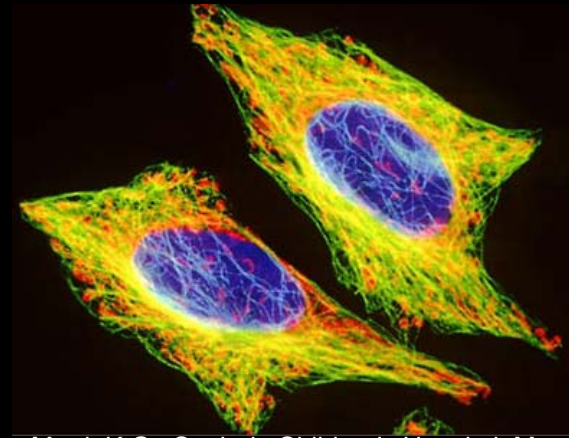


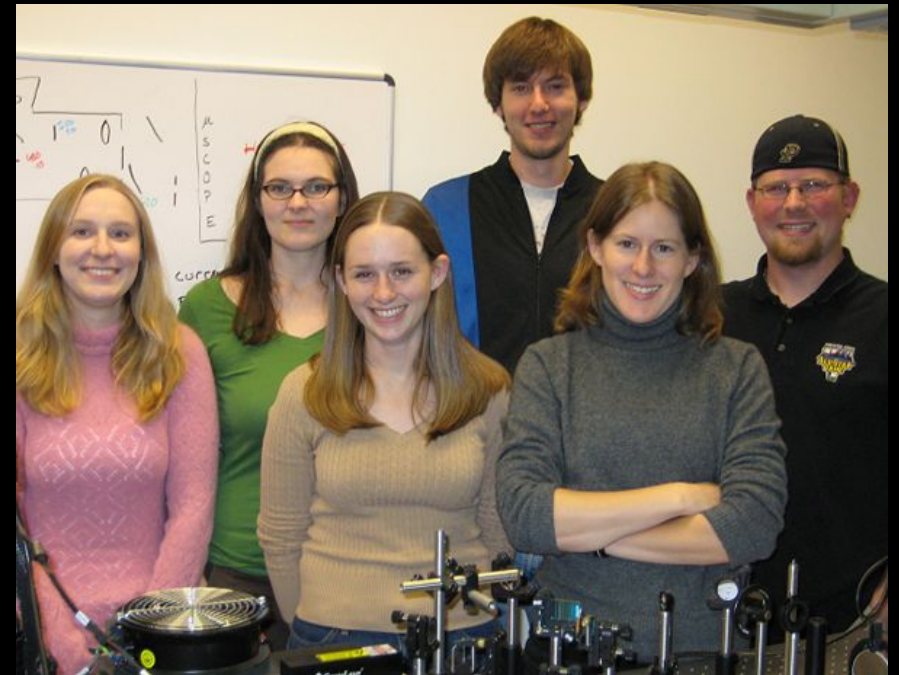
The mechanism of proteoglycan membrane anchorage affects the endocytic pathway of cellular cargo

Kevin Hardin
Payne Lab
School of Chemistry and Biochemistry

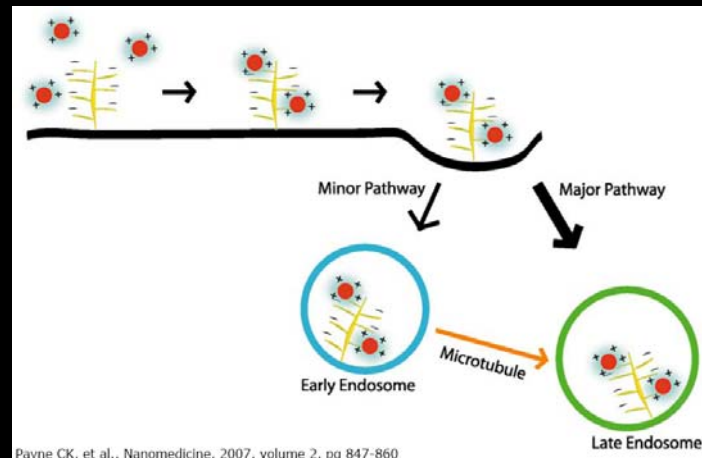
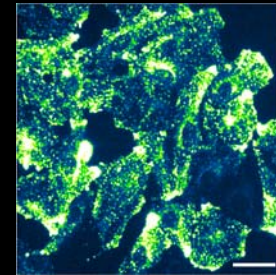
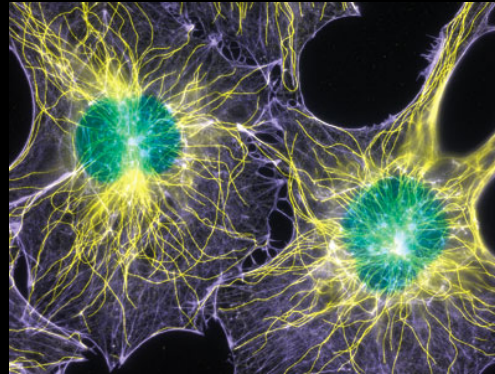


Murti, K.G., St. Jude Children's Hospital, Memphis, TN

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Overview

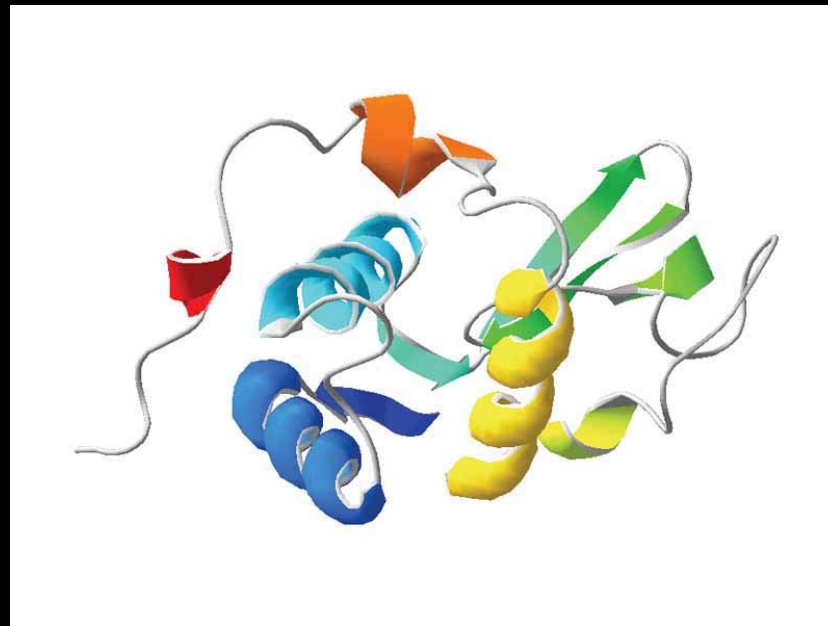
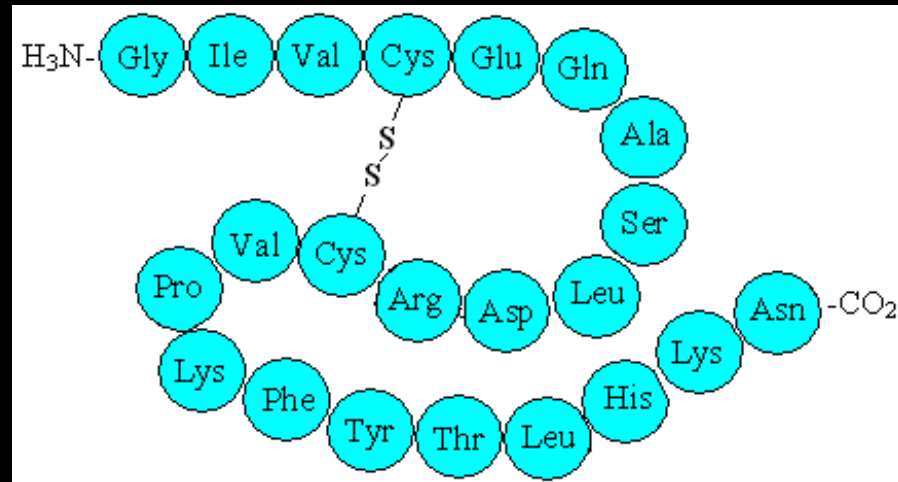
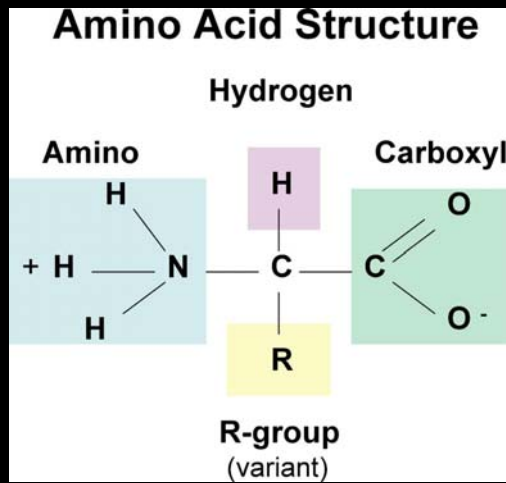


Payne CK, et al., Nanomedicine, 2007, volume 2, pg 847-860

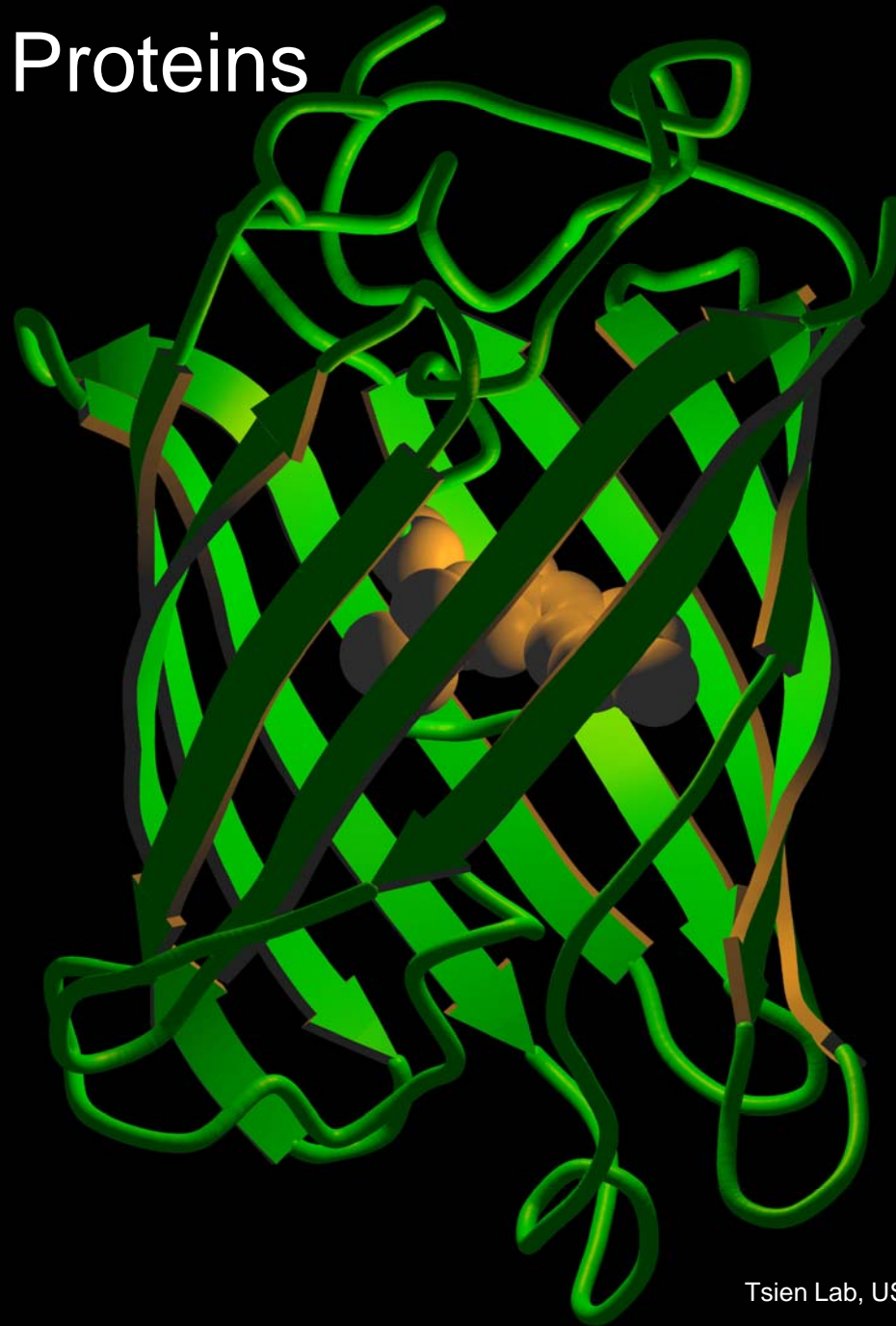
The Human Body



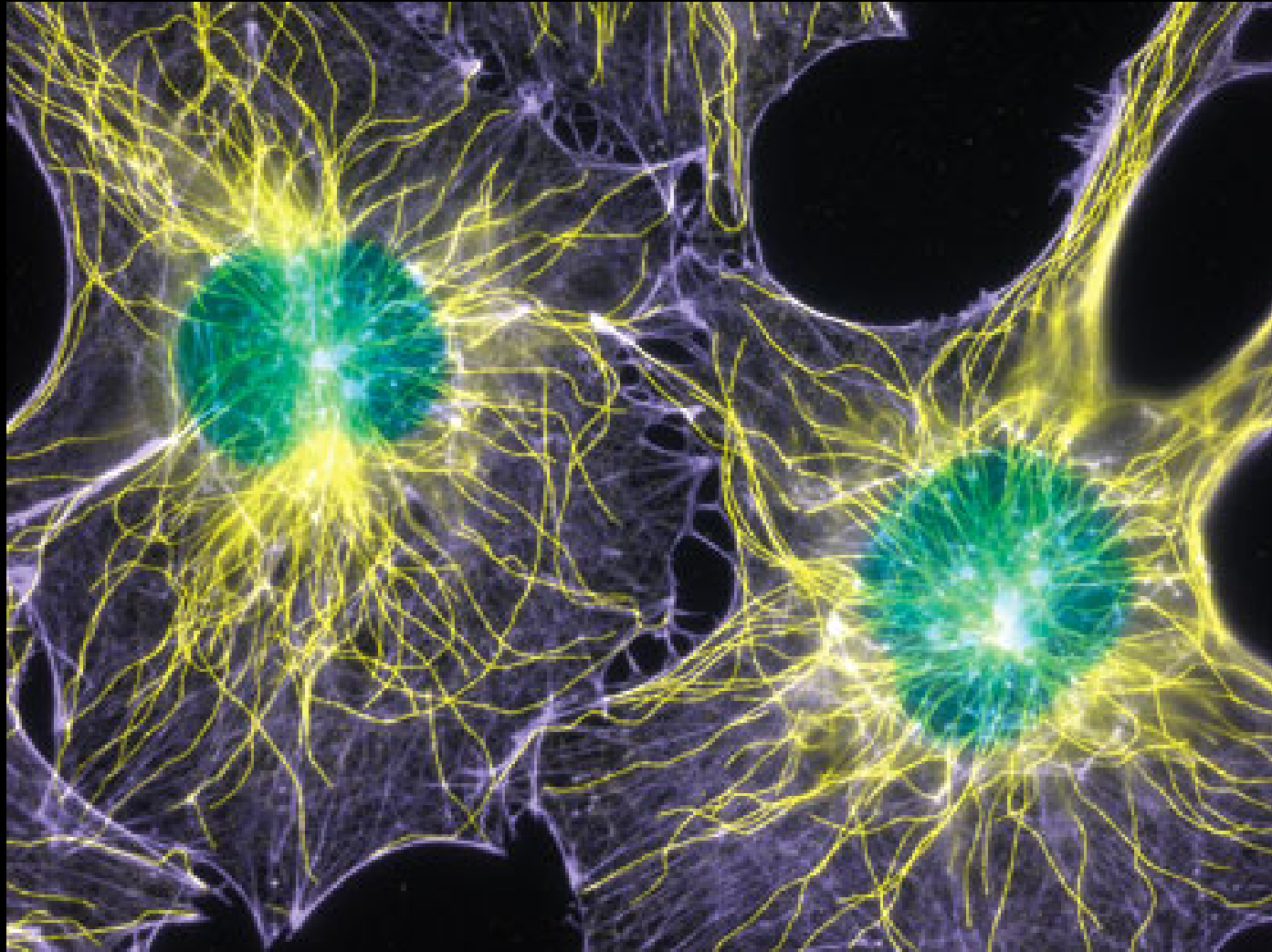
Protein



Fluorescent Proteins

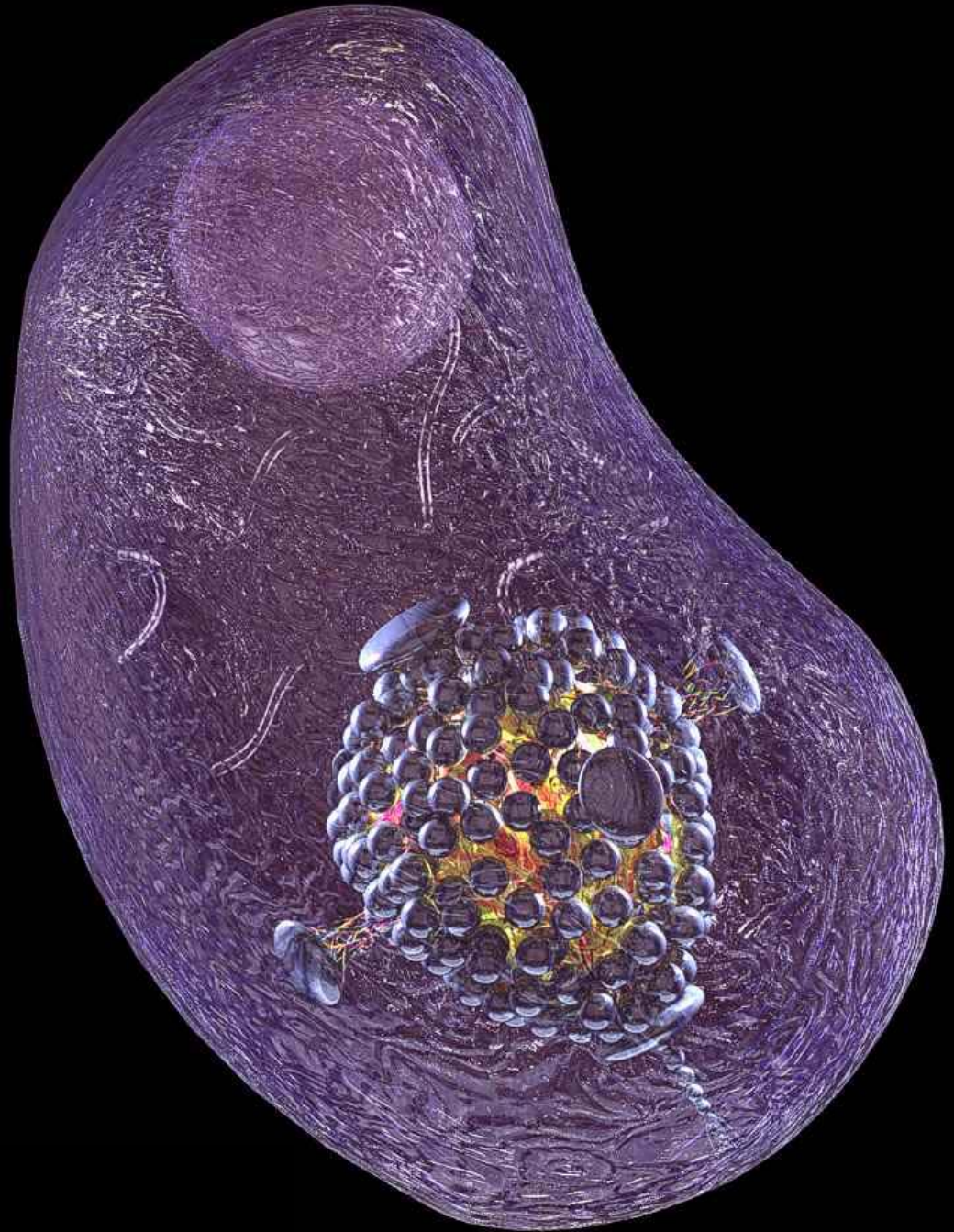
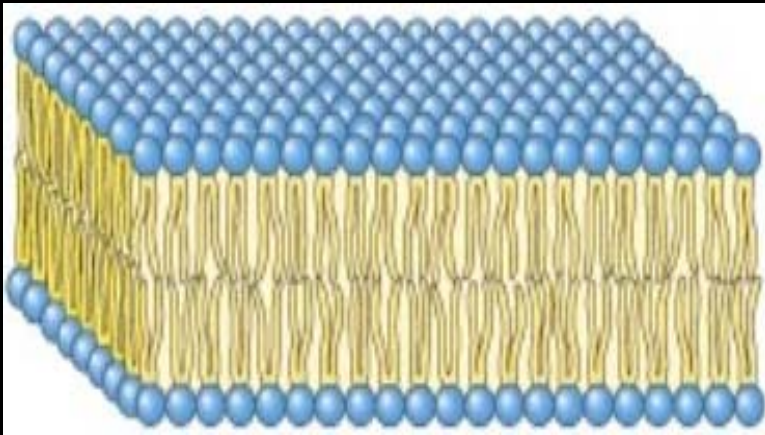


Fluorescent Labeling

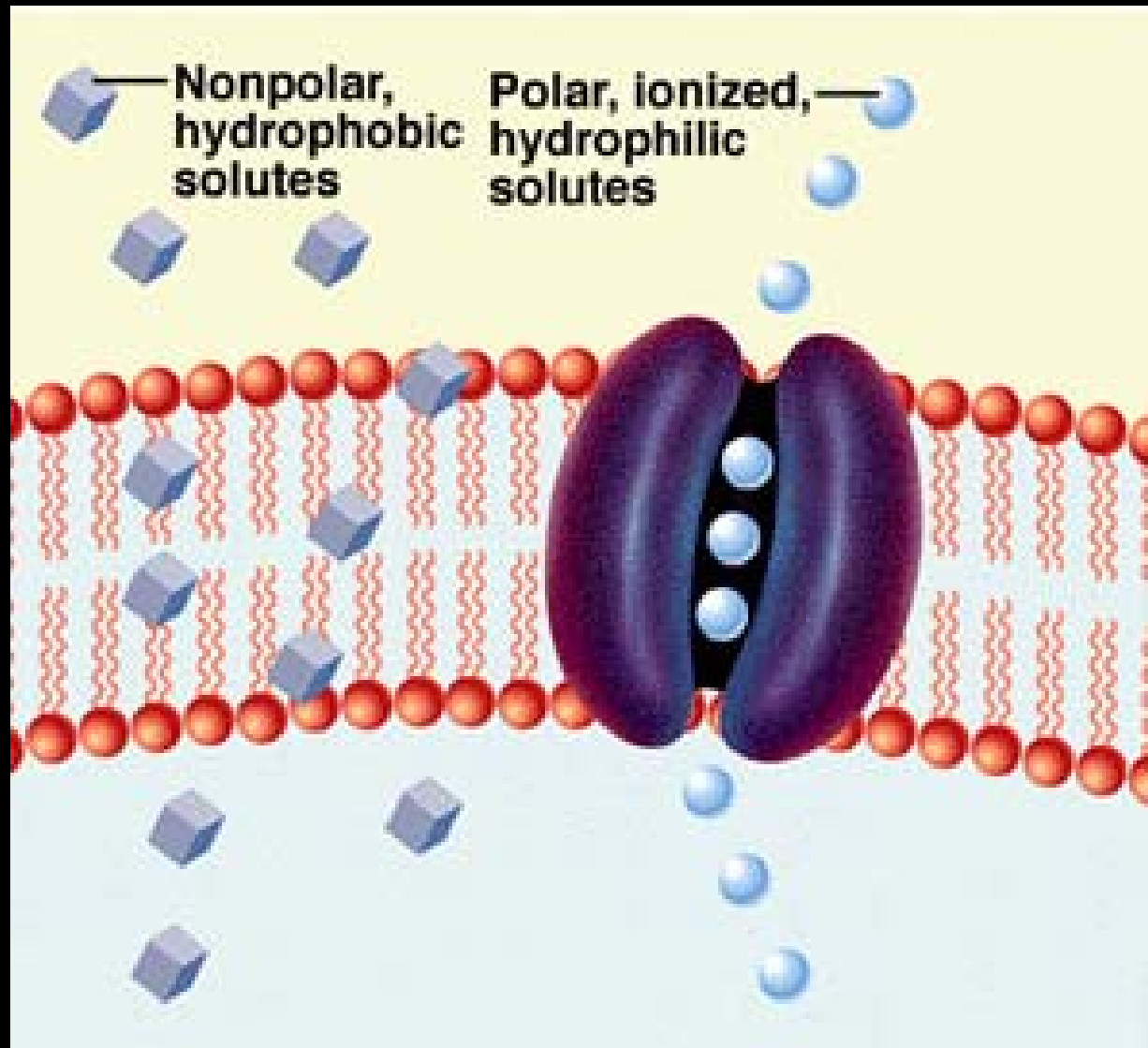


Wittman, T.; The Scripps Research Institute

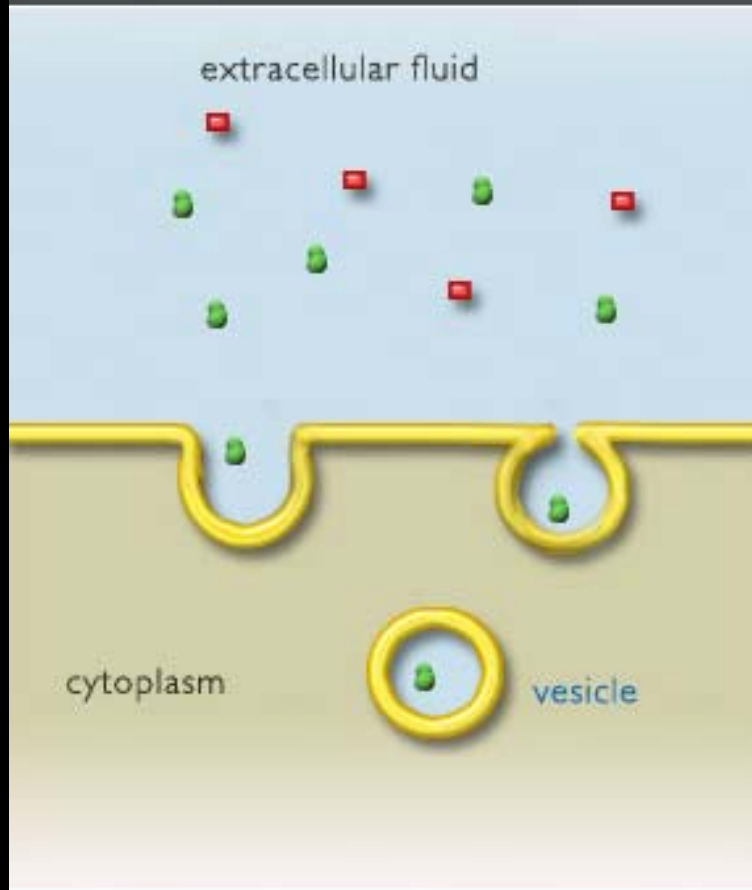
Cell Membrane



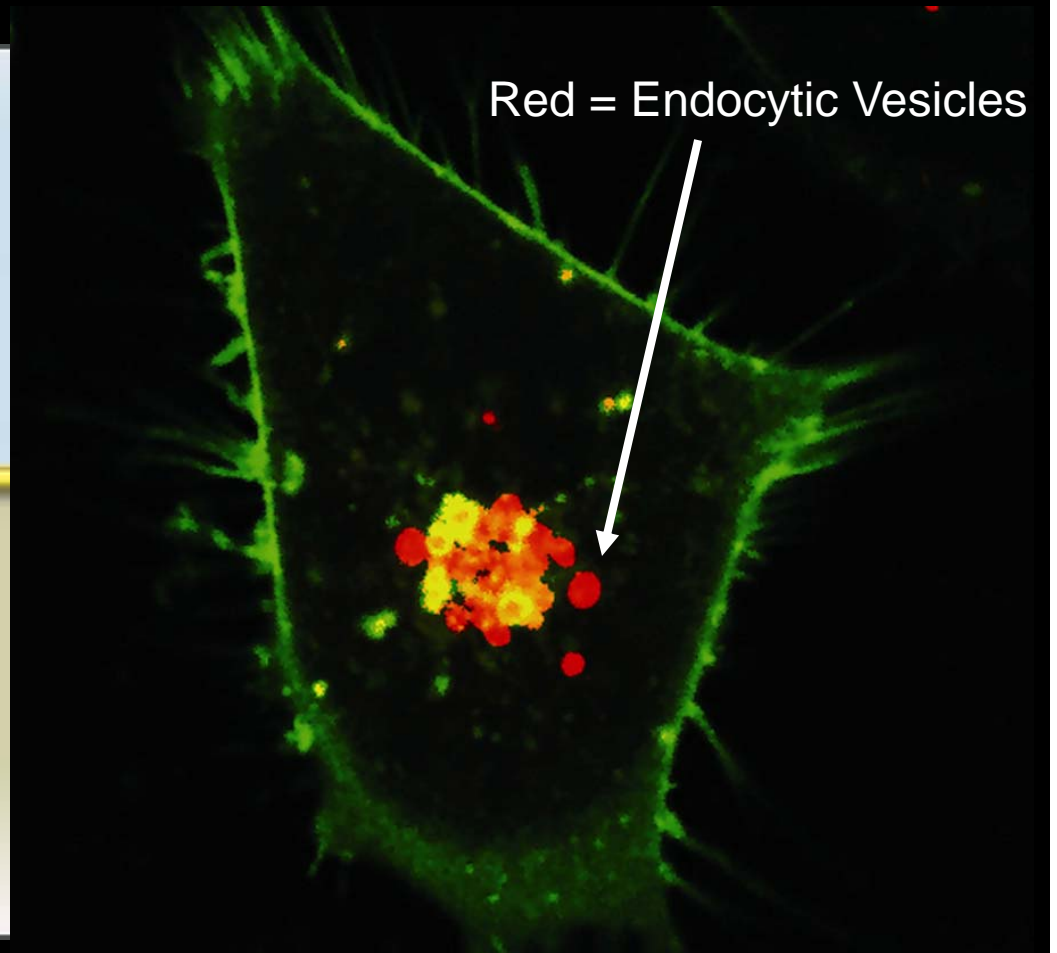
Cell Membrane



Endocytosis

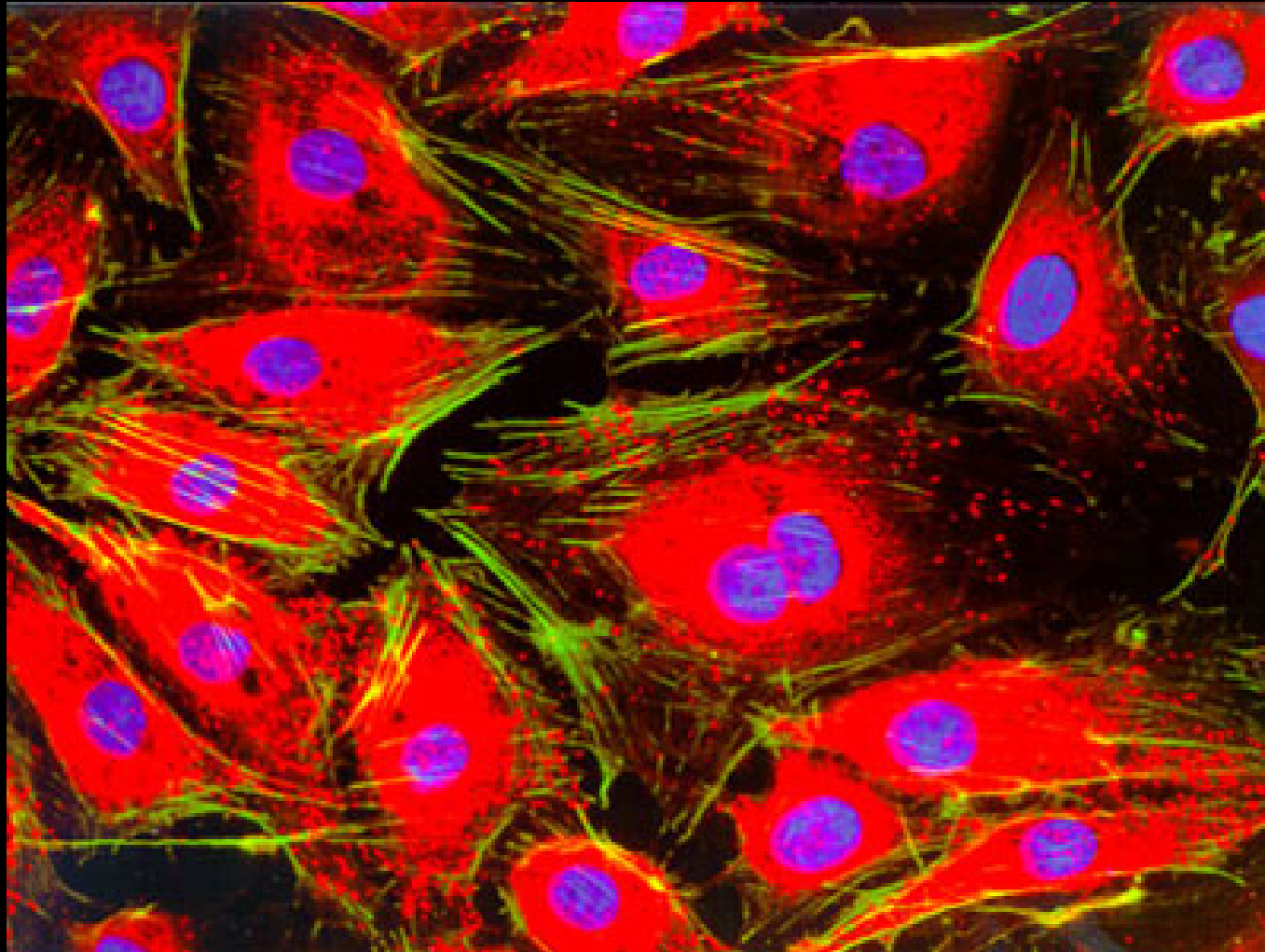


Voth, G. Carnegie Mellon University, 2006



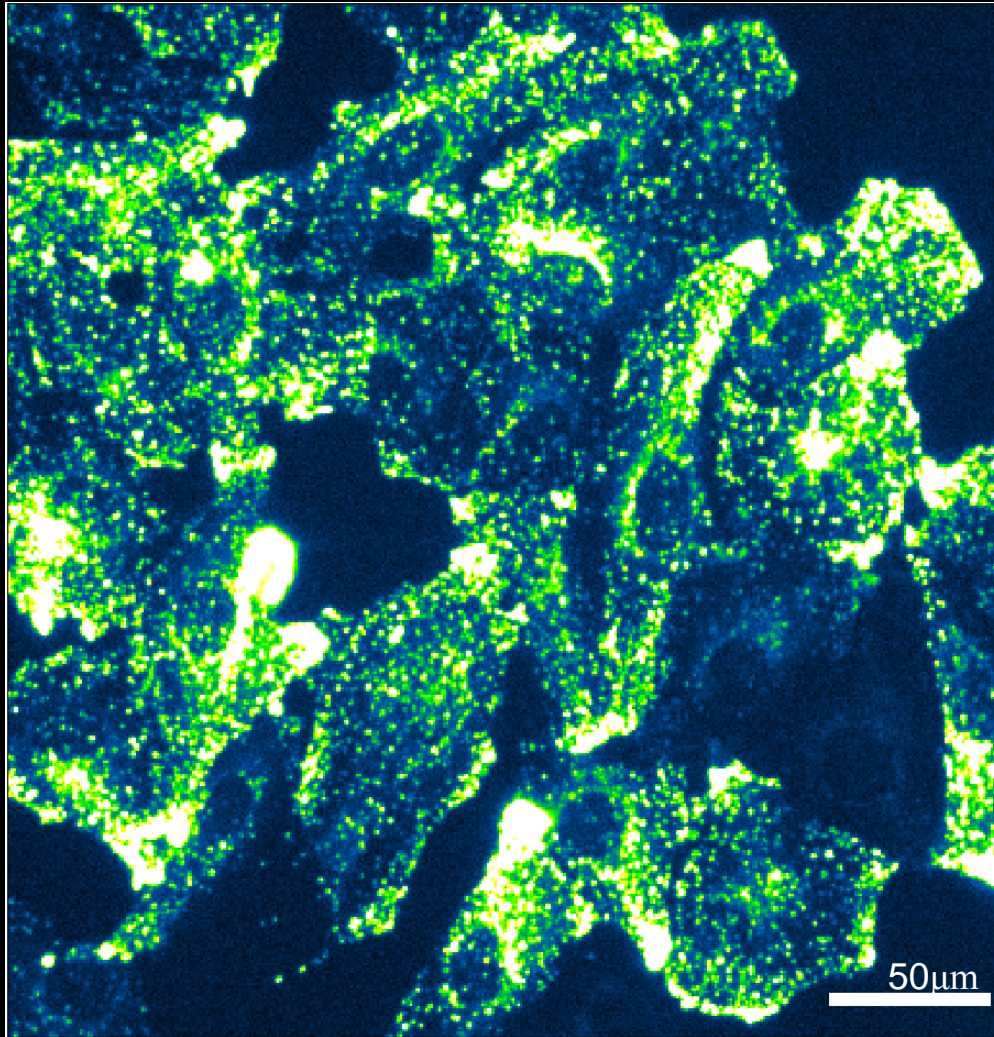
Low Research Group, Purdue University, Dept. Chemistry

Organelles



Zbaeren, J.; Insel Hospital, Bern, Switzerland

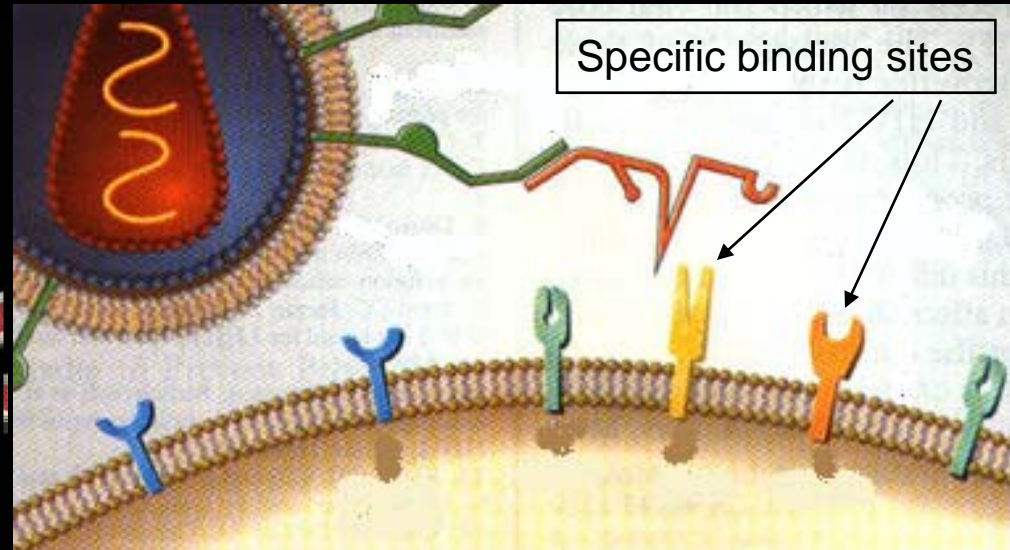
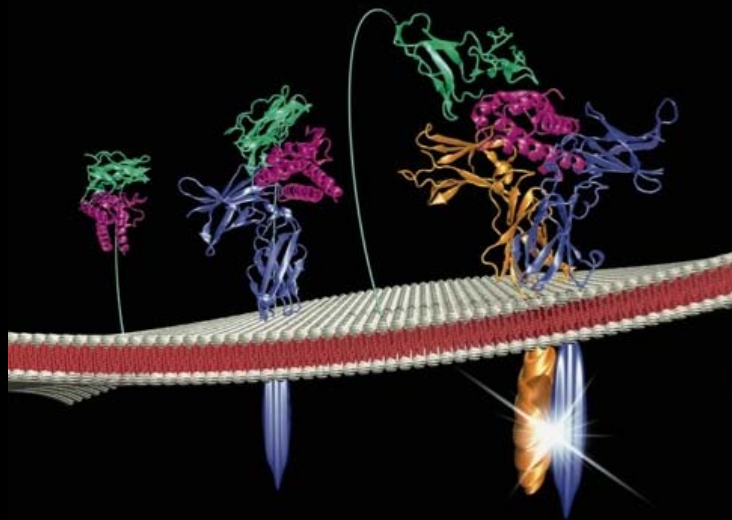
Lysosome



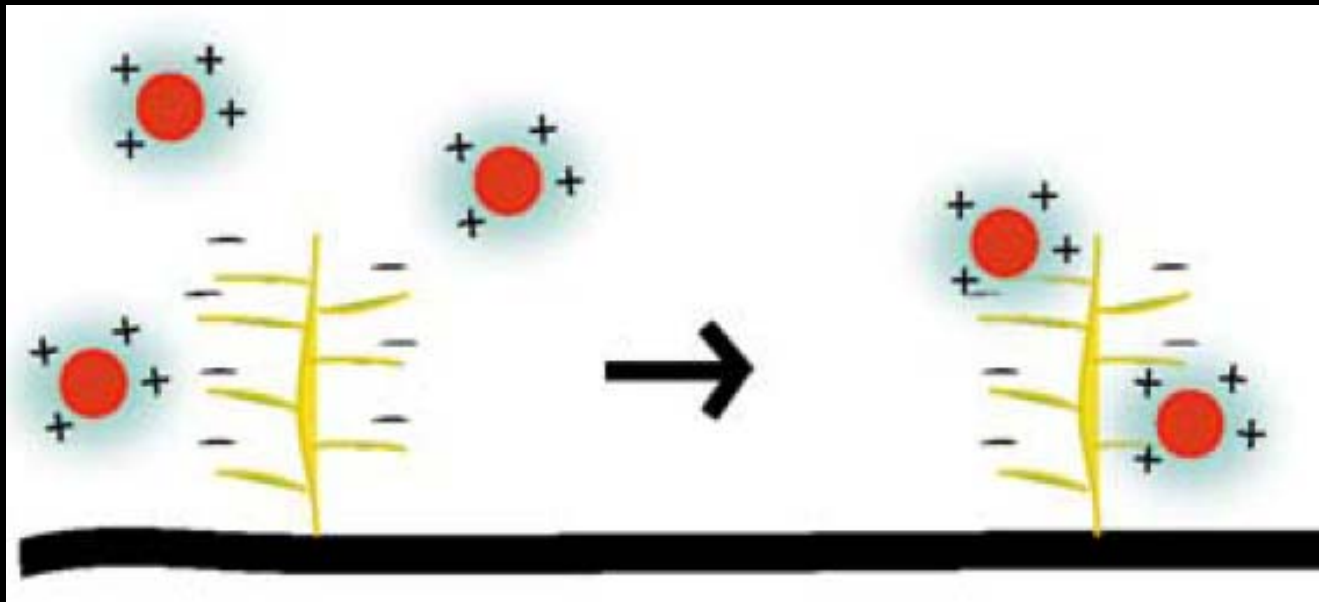
Tomlinson, J.; Humphries, W.H., Payne Lab, Georgia Tech



Cell Surface Receptors

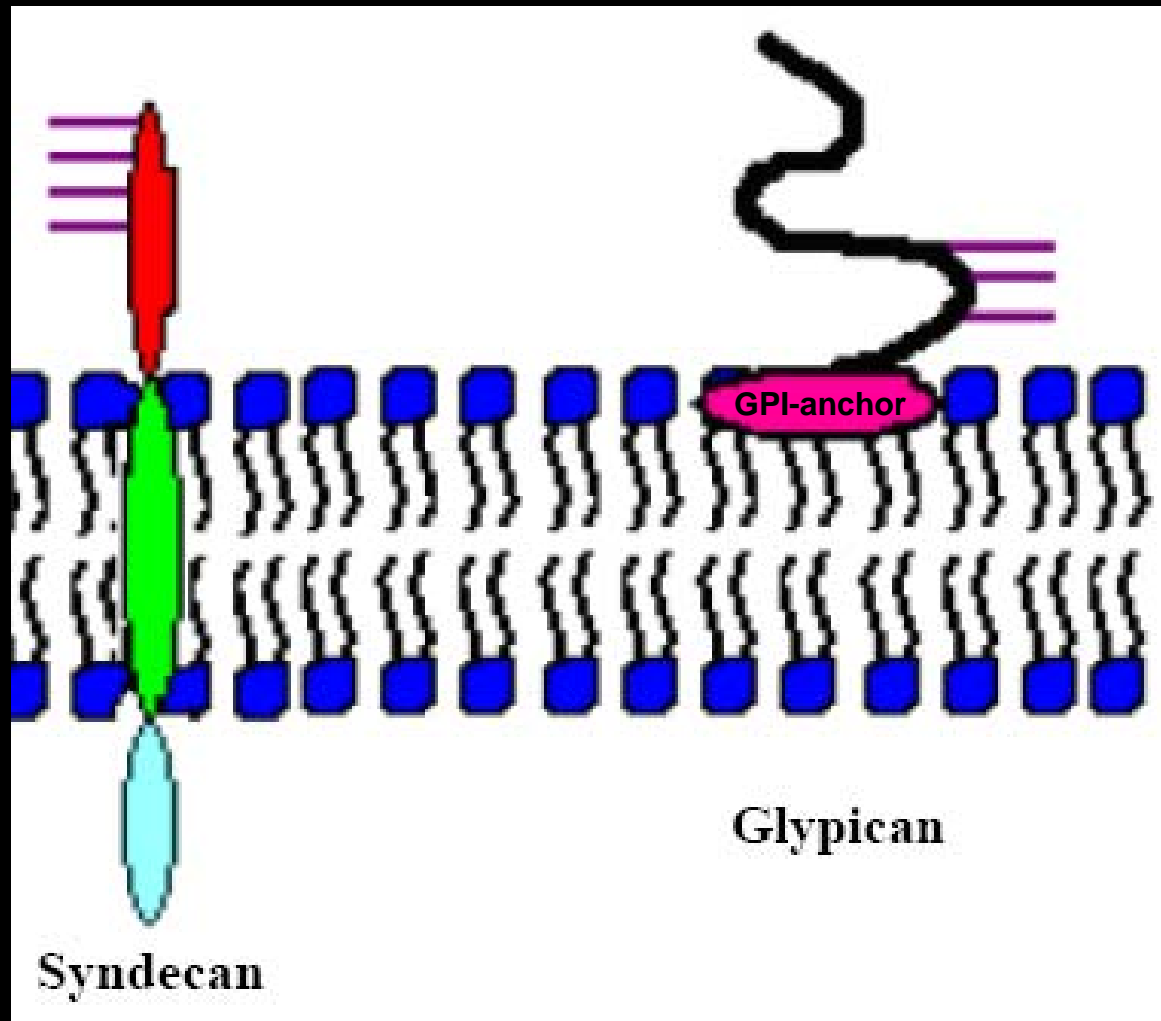


Proteoglycans



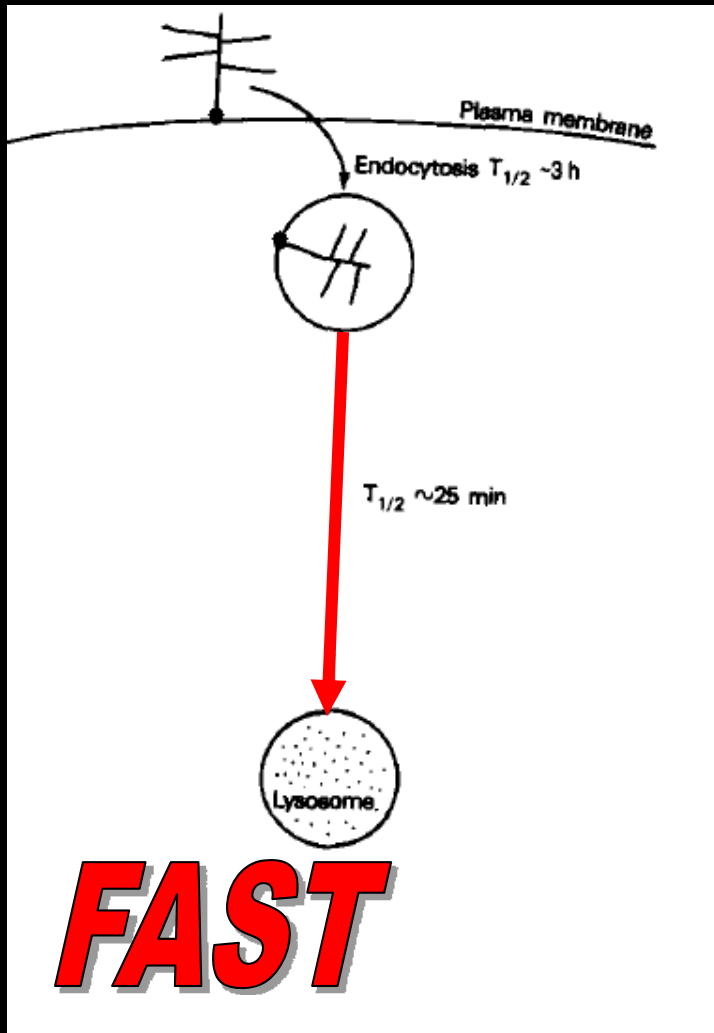
Payne, C.K. *et al.* *Nanomedicine*, 2, 847-860, (2007)

Proteoglycans

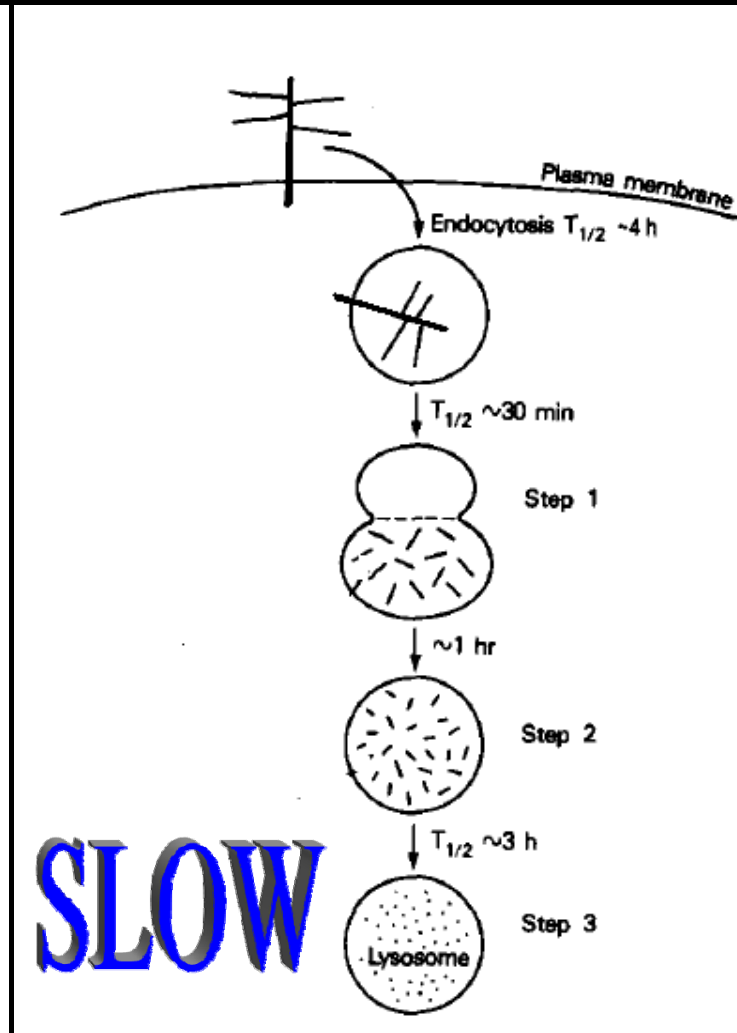


Endocytic Pathways

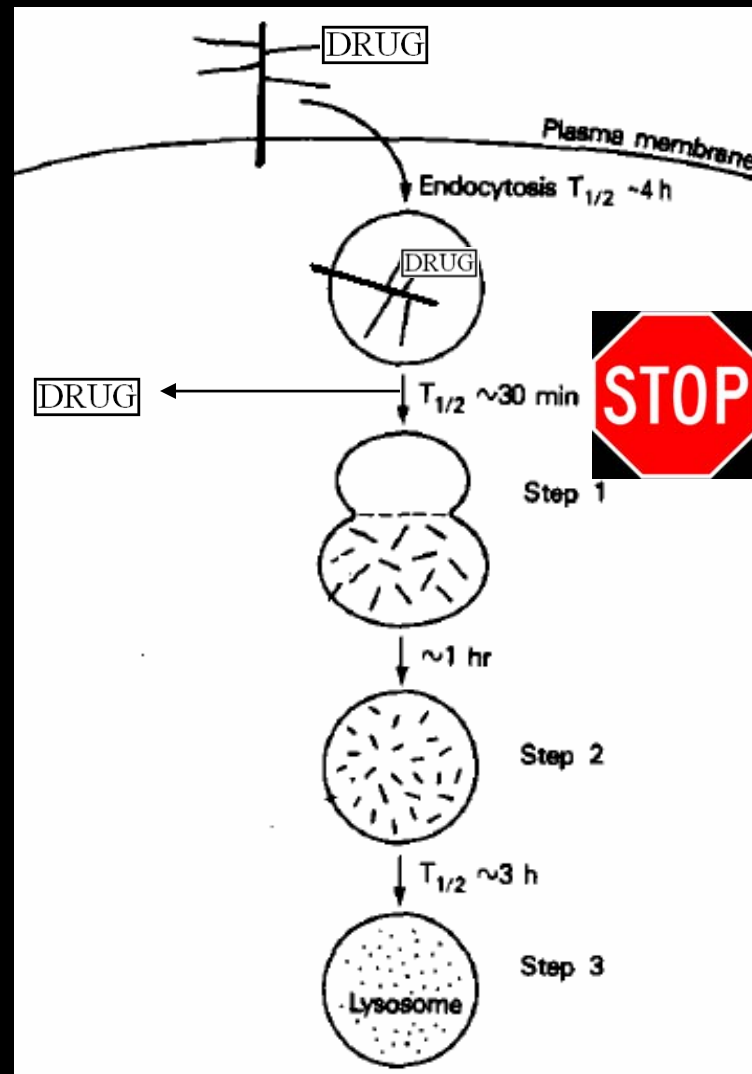
Glypican



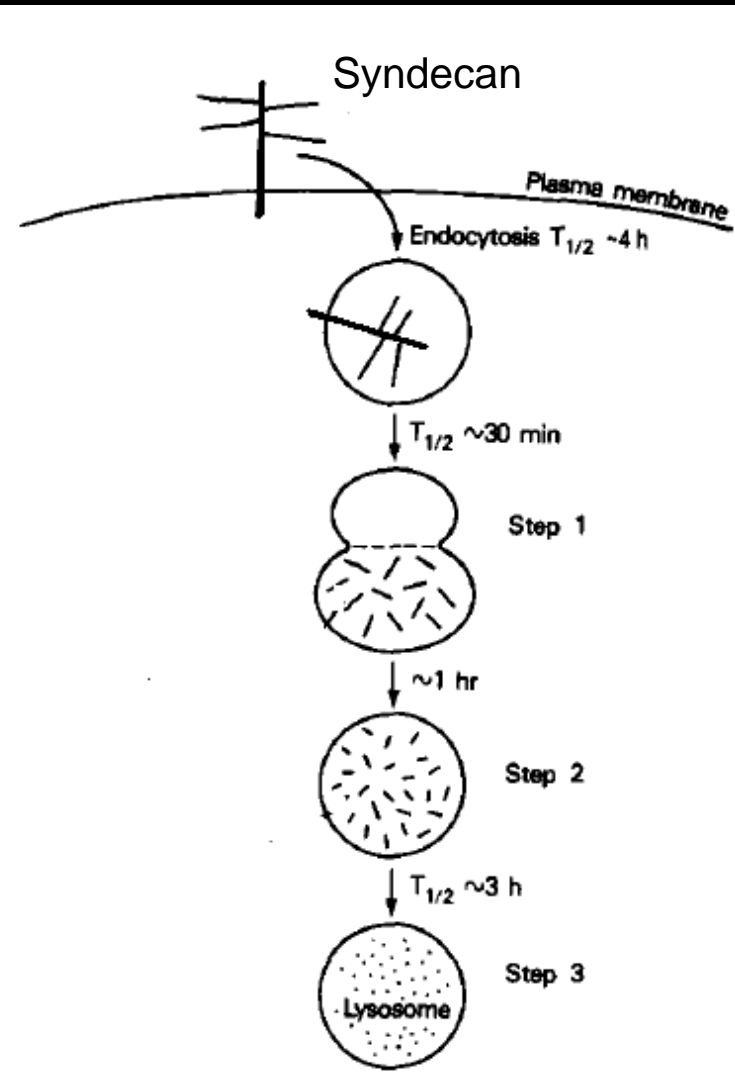
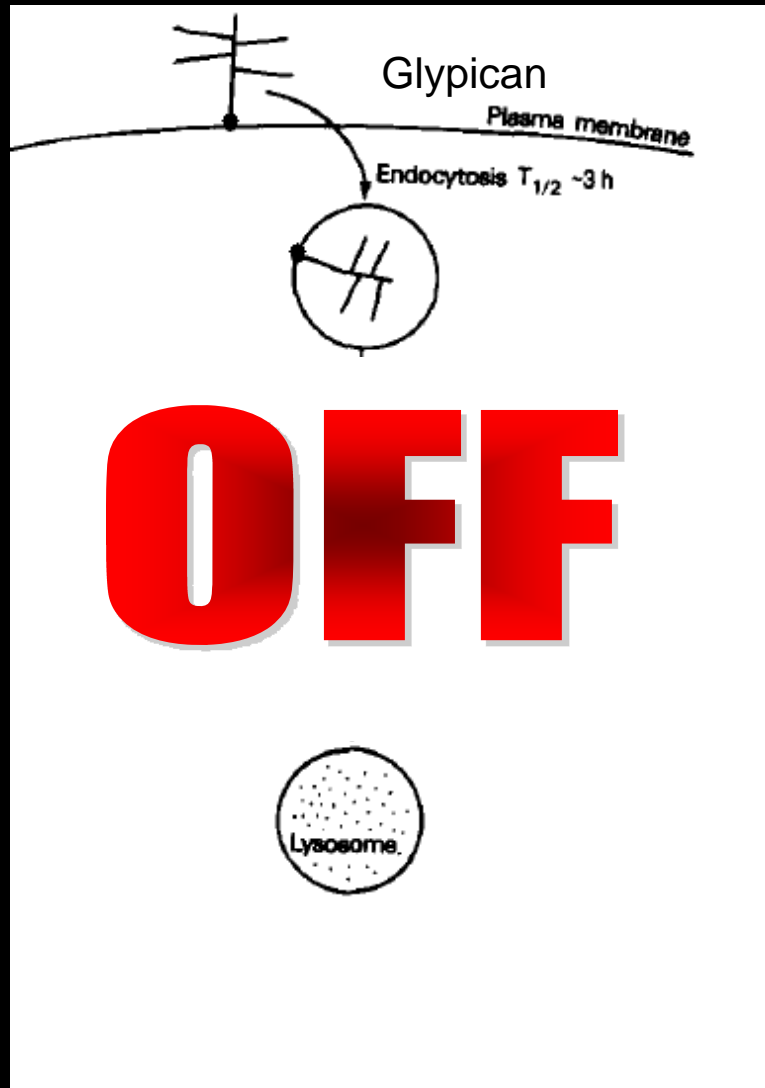
Syndecan



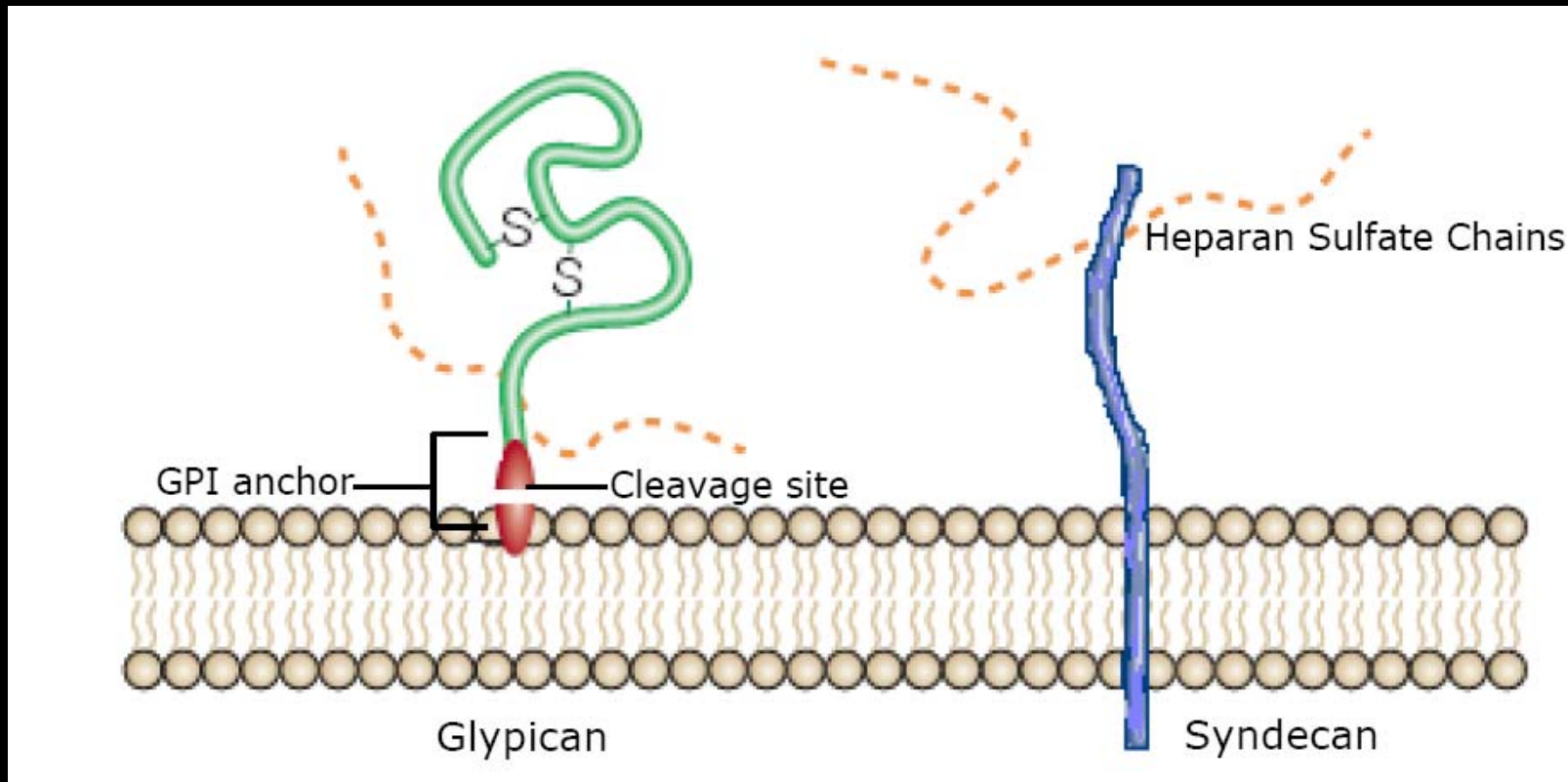
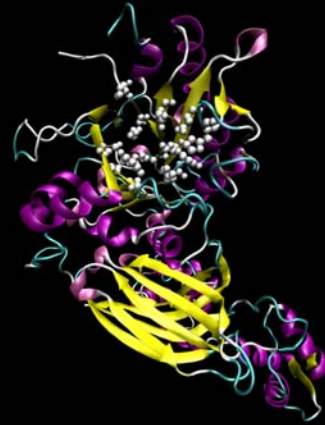
Therapeutic Drug Delivery



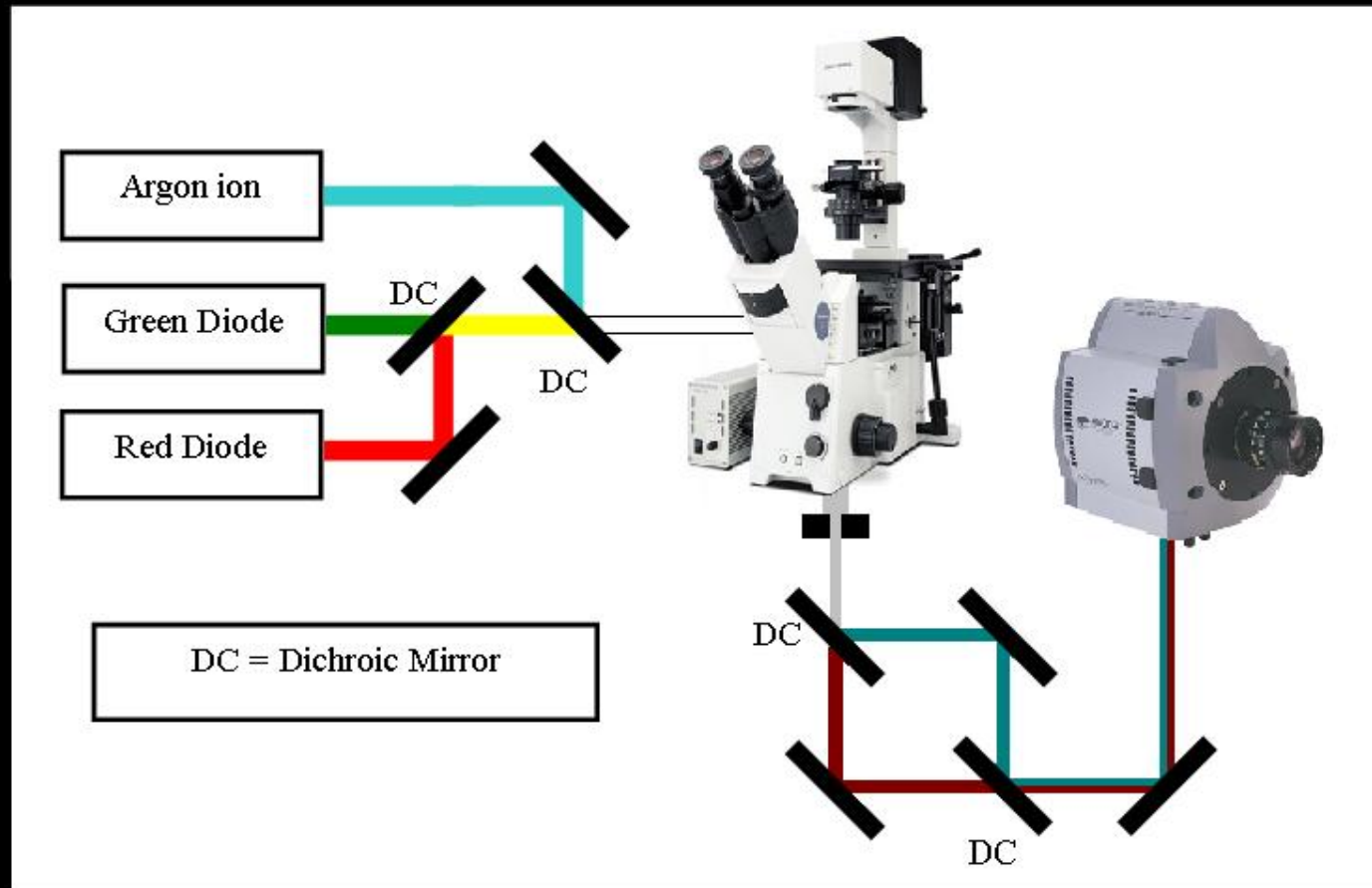
Hypothesis



Phospholipase C



Microscope Set-up



Can the intracellular pathway of particles be controlled?

