



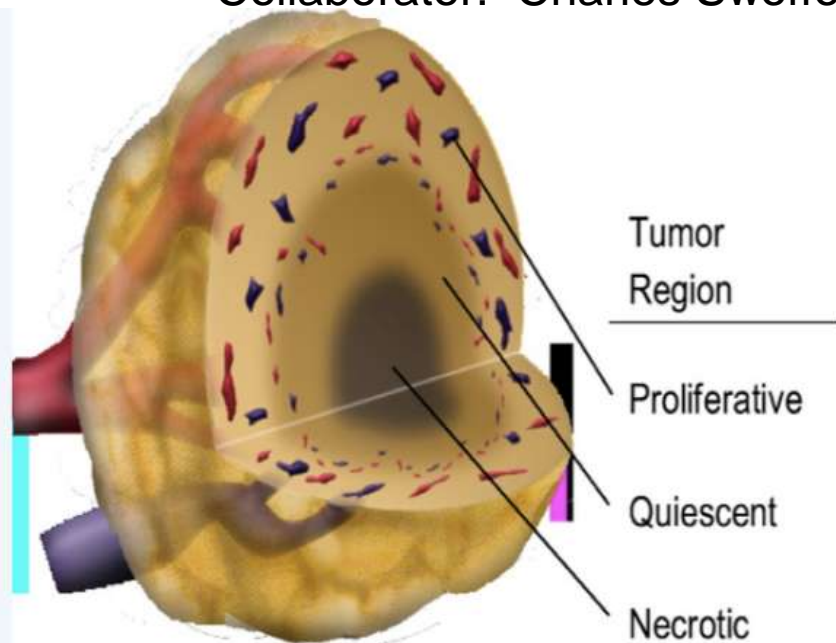
# INSTITUTE FOR CELLULAR ENGINEERING

## Engineer *Salmonella Typhimurium* to Target Cancer Cells in Tumors

Savonne Setalsingh

PI: Prof. Neil Forbes (UMass Chemical Engineering)

Collaborator: Charles Swofford (UMass Chemical Engineering)



Jain R. K., Forbes N. S. PNAS  
2001;98:14748-14750

Conventional cancer therapies have limited efficacy due to diffusion limitations into the quiescent and necrotic regions of tumors. This prevents complete eradication of a tumor mass and in turn can lead to reoccurrence and metastasis. Research has shown that *S. Typhimurium* accumulate in the quiescent region of tumors. Our lab proposes that by using this bacterium as a drug delivery vector, we can successfully deliver therapeutics to regions previously unreachable by conventional cancer therapies. My work involves characterizing a novel switch that will trigger drug production once colonization has occurred in order to have specific and targeted drug delivery.