

# Characterization of Human Lung Cancer Viability in the Bioreactor System

Mark Kirstein (PI) & Brent Williams

Experimental & Clinical Pharmacology, University of Minnesota

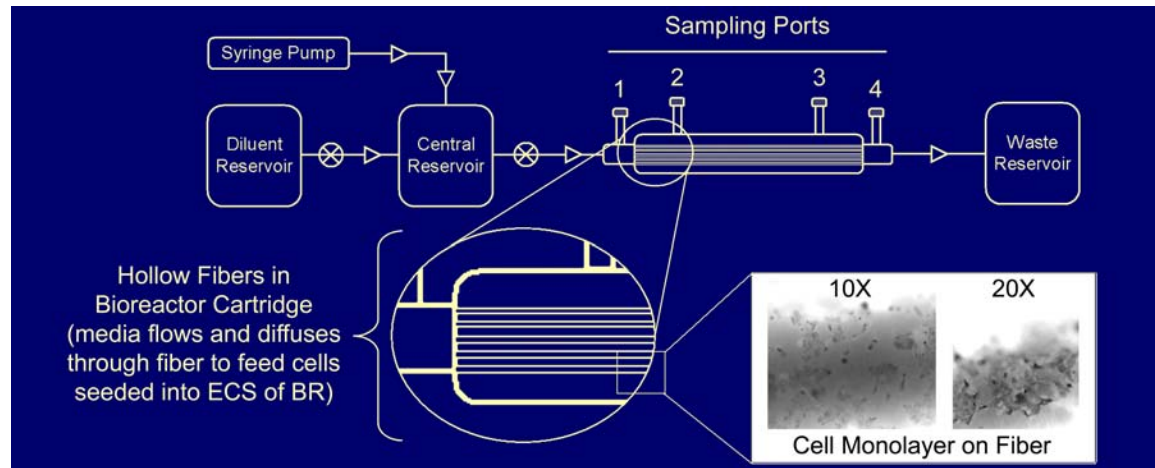
NNIN Facility utilized: Characterization Facility

**In vitro** bioreactor systems used to investigate the following:

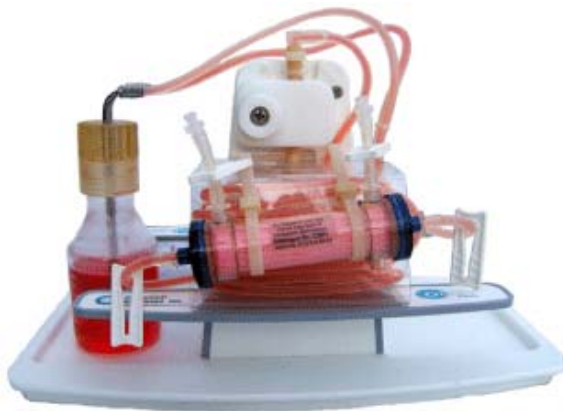
Pharmacokinetic modeling of chemotherapy infusions (dose-response relationships)

Analysis of diffusion properties of new chemotherapeutics through multiple cell layers

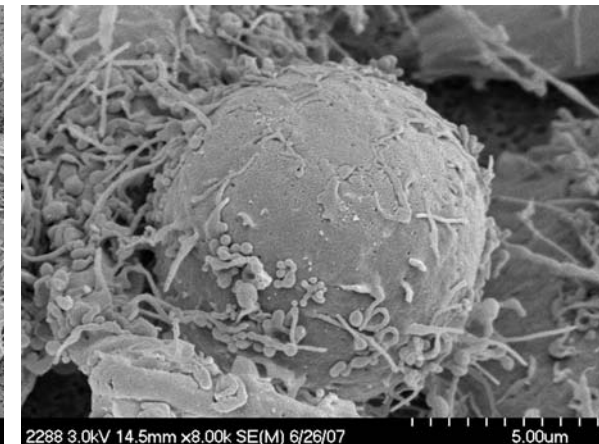
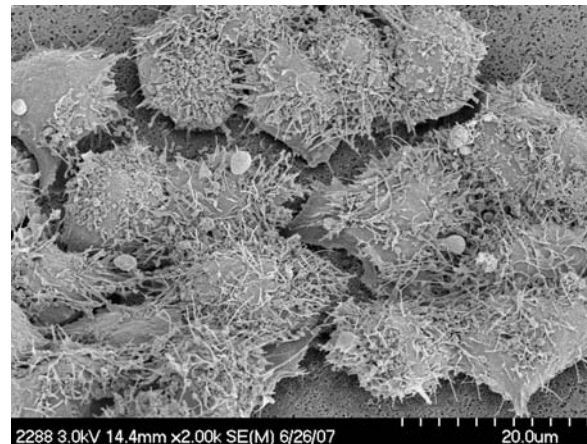
Changes in cellular growth morphology following infusions



**Chemotherapy Infusion**



**Bioreactor System**



**Electron Microscopy Imagery of Cells Grown in Bioreactor**