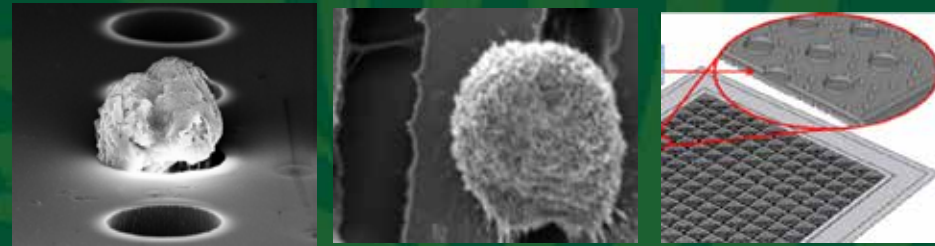




Morphologic, Molecular, and Functional Characterization of Circulating Tumor Cells (CTC) in a Syngenic Breast Cancer Mouse Model System

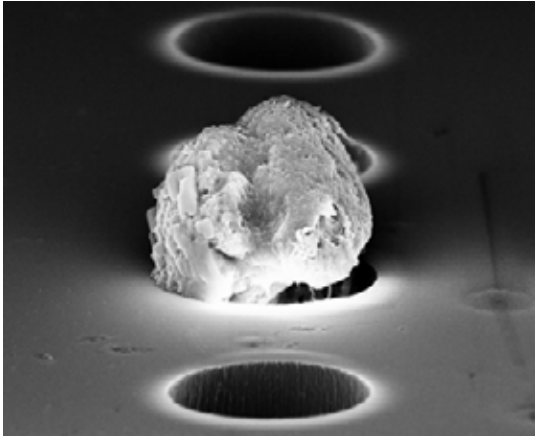


Anthony Williams

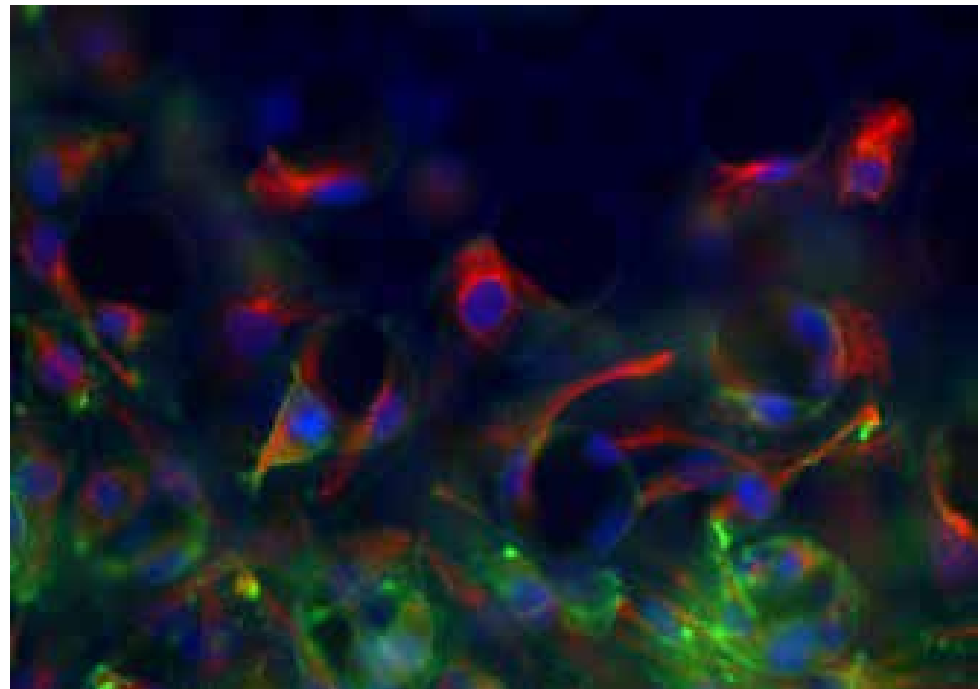
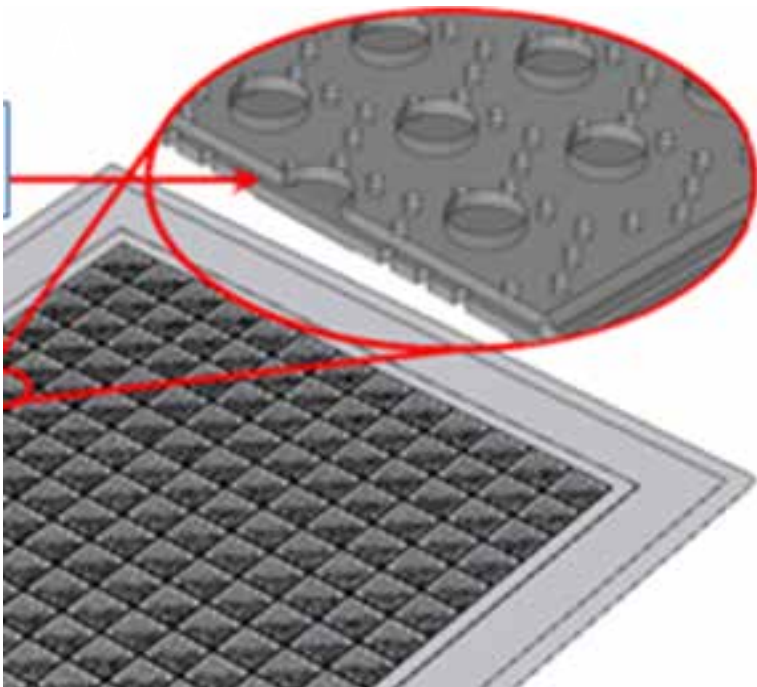
**PhD Candidate, Sheila and David
Fuente Graduate Program in Cancer
Biology**

**University of Miami-Miller School of
Medicine, Miami FL USA**

NextGen Microfilter Technology for Capture of Viable CTC



Reduction in the sample flow rate (200ml/hr to 75ml/hr) and changes to the pore architecture ('slot' pores and double membrane microfilters) circumvent the requirement for fixation in 1% formalin, permitting the capture of *viable CTC* for functional characterization

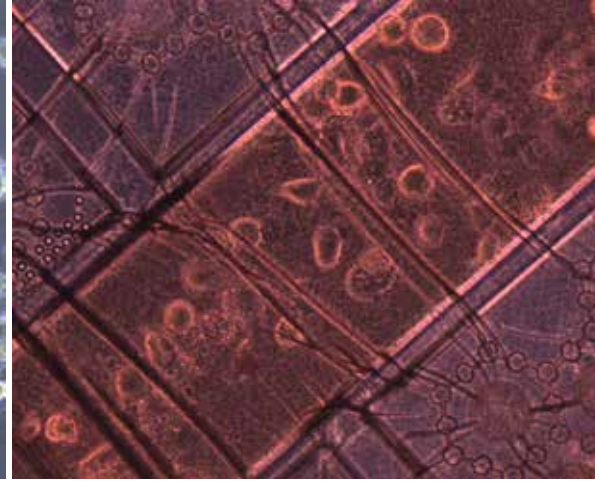
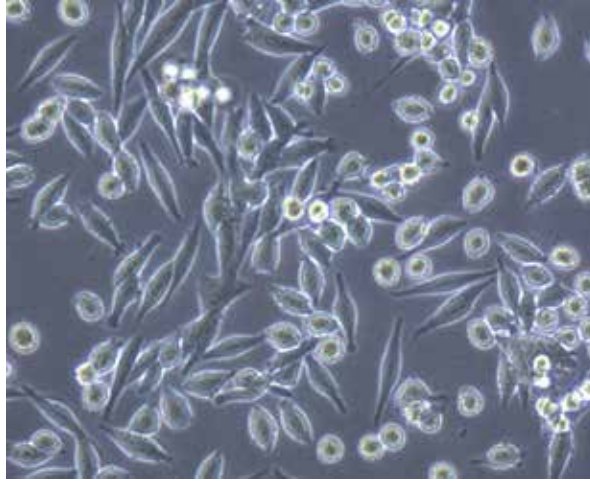


4T1 and 4T07 Primary Tumors and CTCs in Culture

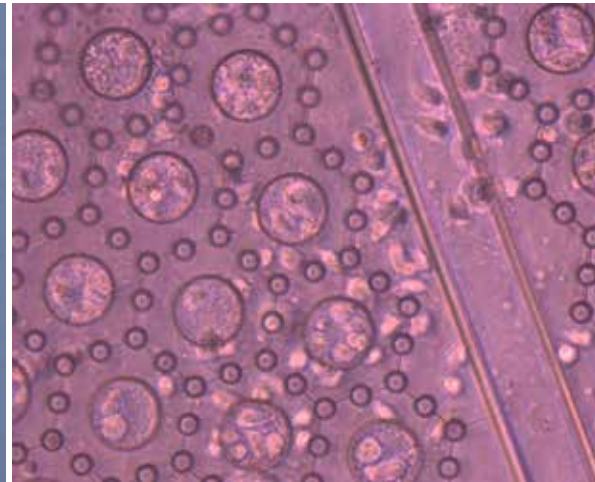
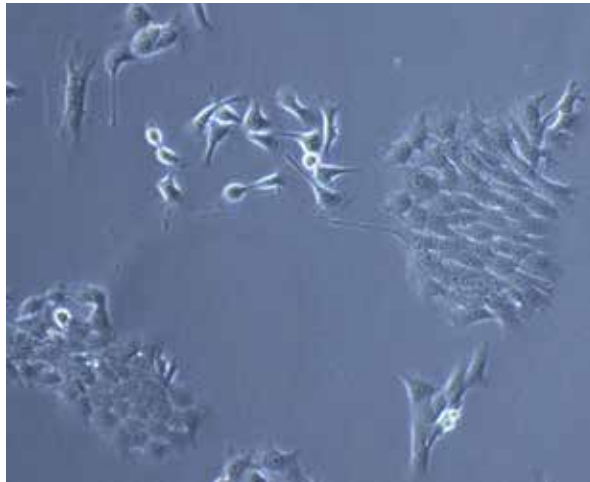
Primary Tumor

CTCs On-Chip, 14-21 Days

4T07



4T1

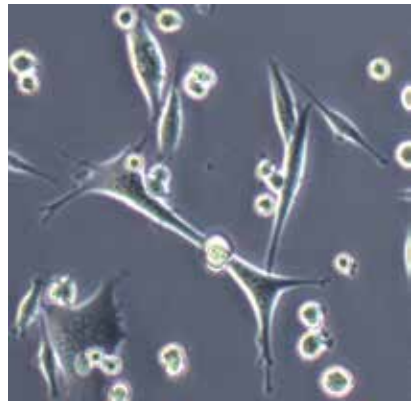


CTCs were successfully recovered from 1/3 (33%) of mice in both groups

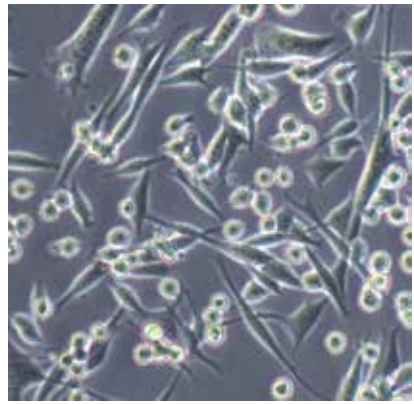
4T1 CTCs Demonstrate The Existence of Two Morphologic Subclones: “Spheroid-Like” and “Spindle-Like”

4T07 CTCs

Low Confluency

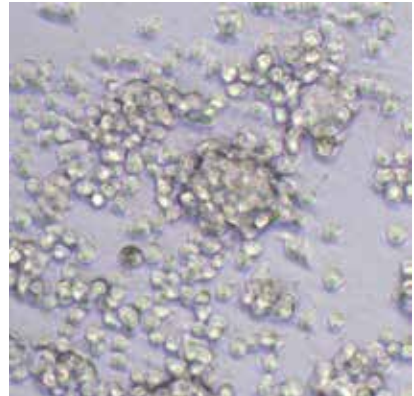
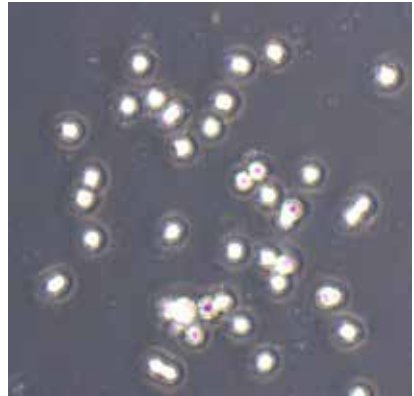


High Confluency

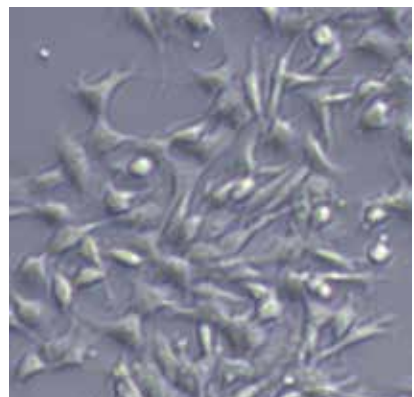
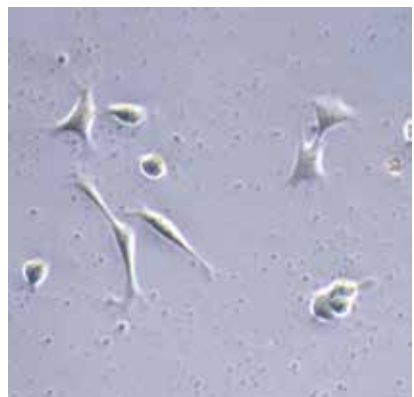


4T1 CTCs

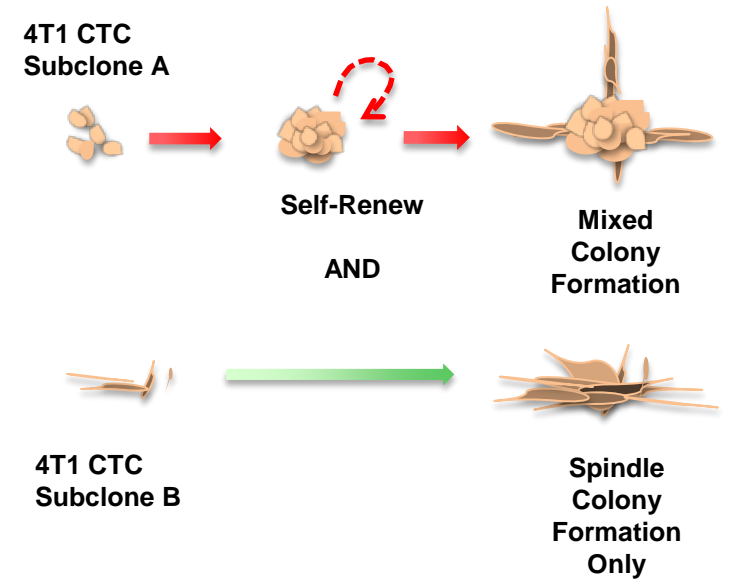
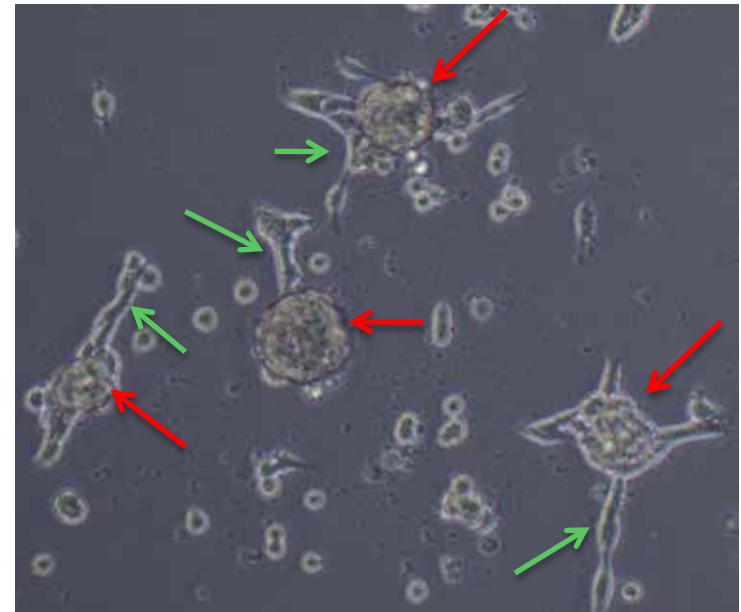
Subclone A
“Spheroid-Like”

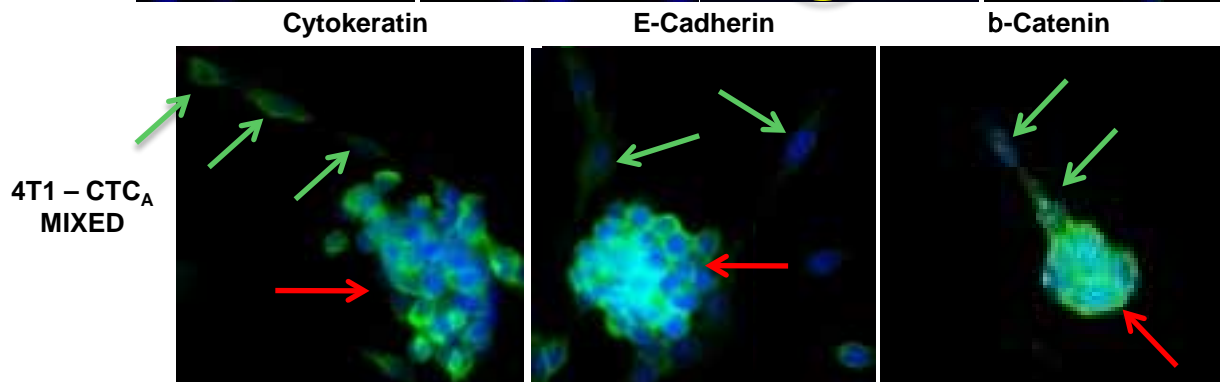
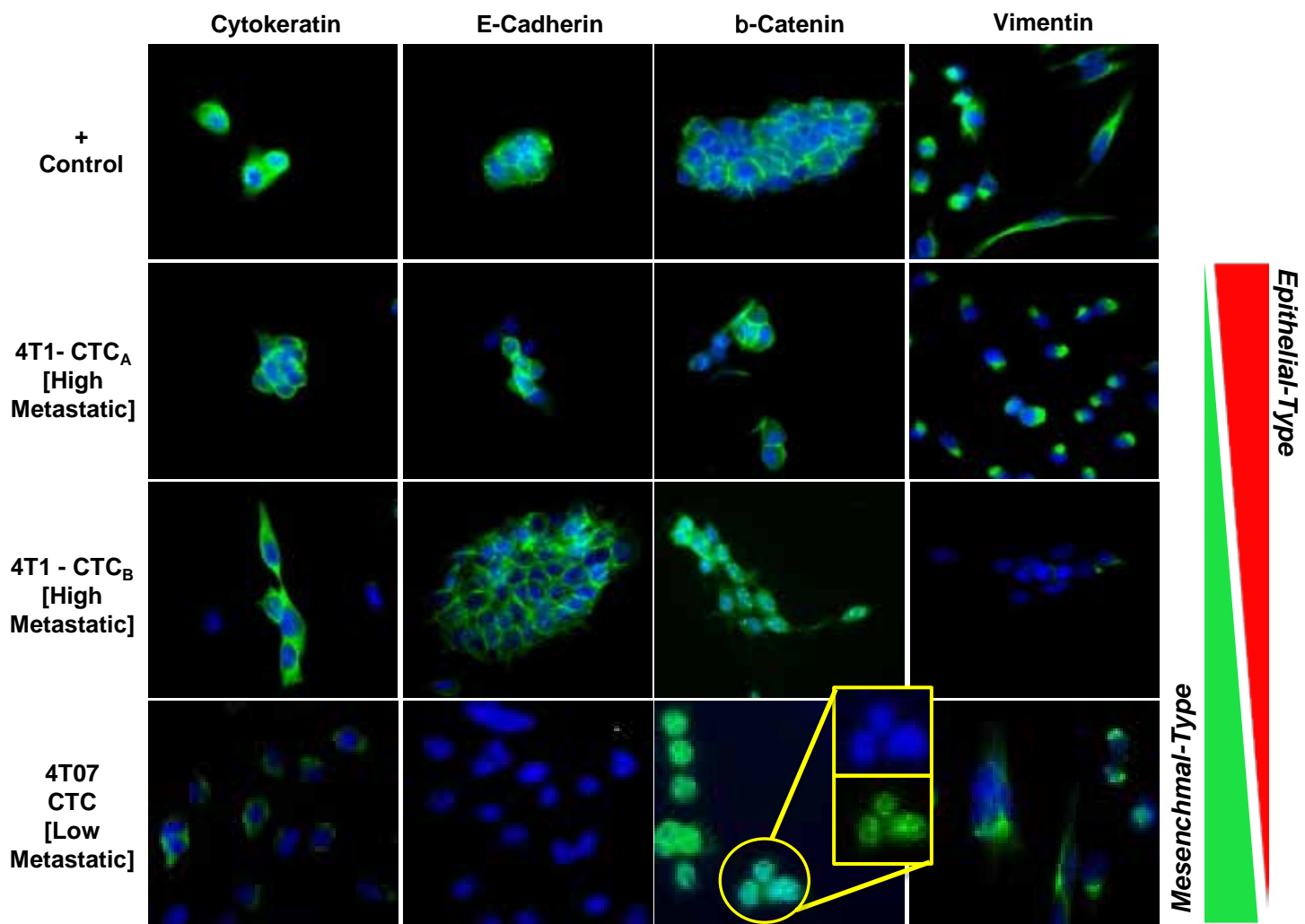


Subclone B
“Spindle-Like”

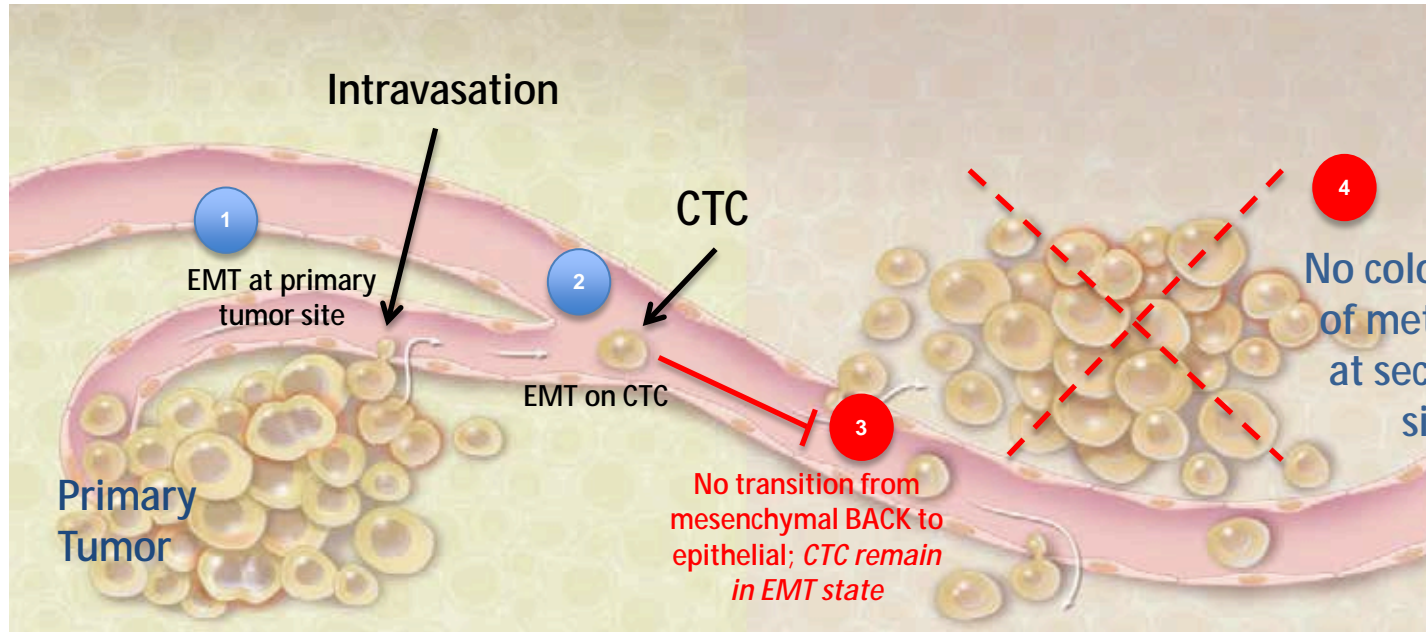


4T1 Subclone A MIXED

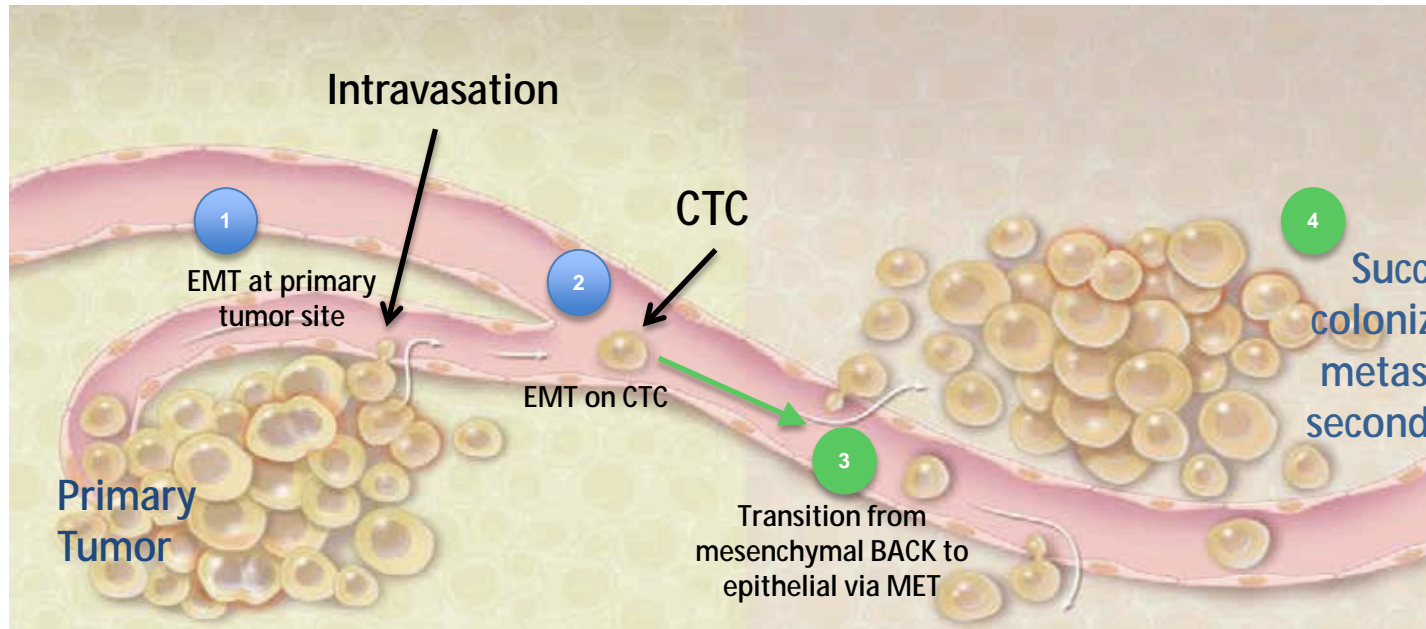




4T07
Mouse
Model



4T1
Mouse
Model



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