Discussion Section
3/14/17
Additional Discussion Slides
Last week, we introduced the role of the microenvironment in:

Cancer Metastasis
Pre-Metastatic Niches

Step A

Step B
Question:
What combinations of microenvironmental signals are involved in the metastasis of breast cancer stem cells?

(What different factors are involved in Steps A and B?)
In-Class Exercise:
How could you use cell microarrays to examine this?

1. If you are able to obtain bulk breast cancer tissue samples from patients, what initial steps are required to perform the microarray experiments?
2. What experiment(s) would you perform to evaluate Step A of the process?
3. What experiment (s) would you perform to evaluate Step B of the process?
You have identified combinations of signals in your in vitro microarray platform.

- What next steps are necessary to demonstrate importance of these signals?

- What are your controls?
Matrix Adhesion in Tumor Metastasis
(mouse lung adenocarcinoma)
Matrix Adhesion in Tumor Metastasis
(mouse lung adenocarcinoma)

Primary tumor, Non-metastatic: $T_{\text{nonMet}}$
Primary tumor, Metastatic: $T_{\text{Met}}$
Metastases, Lymph Node: N
Metastases, Liver: M

Reticker-Flynn et al., Nat Commun (2012)
Matrix Adhesion in Tumor Metastasis

(mouse lung adenocarcinoma)

Reticker-Flynn et al., Nat Commun (2012)