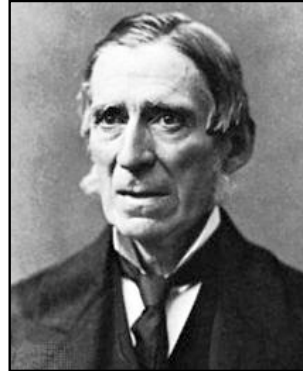


# Metastasis

1. The metastatic cascade
3. Pathologic features of metastasis
4. Therapeutic ramifications



Sir James Paget (1814-1899)

British Surgeon/  
Pathologist

Paget's disease of  
bone

Paget's disease of  
the nipple (intraductal  
Ca breast spreading to  
skin of nipple)



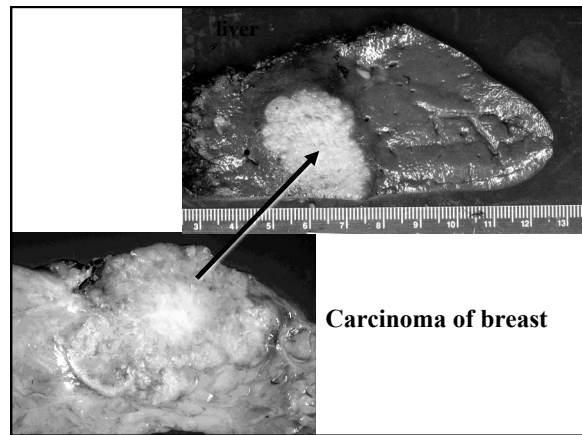
Stephen Paget, MD (1855-1926)

## METASTASIS: "Seed and Soil"

Paget S. The distribution of secondary growths in cancer of the breast.

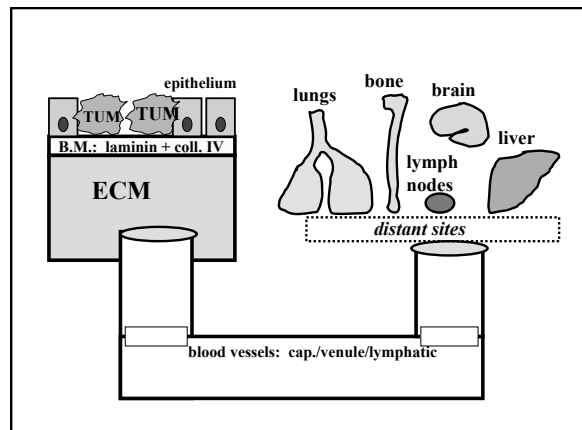
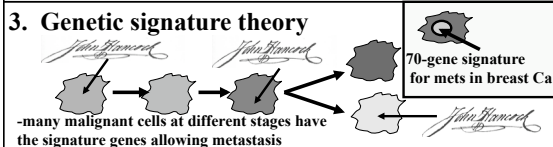
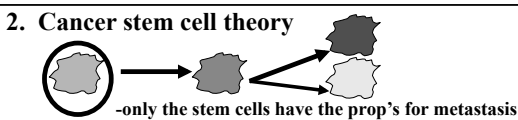
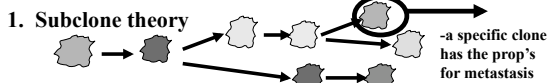
Lancet 1889; 1: 571-573.

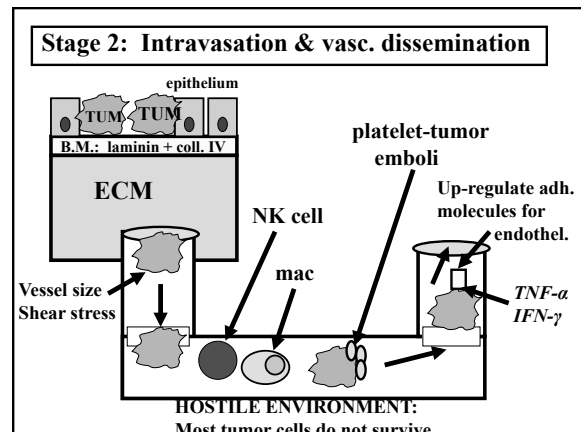
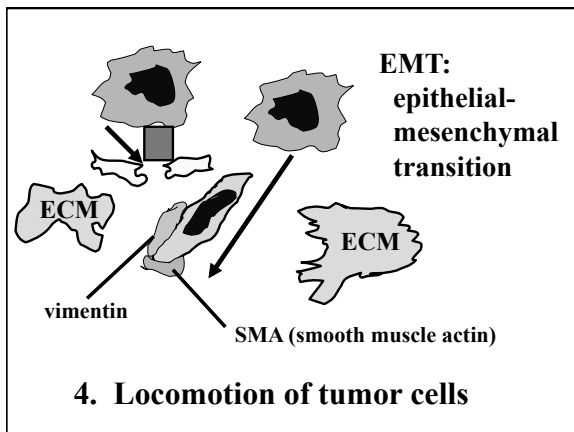
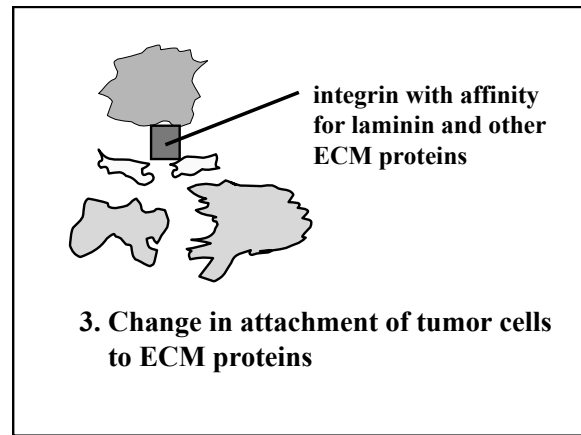
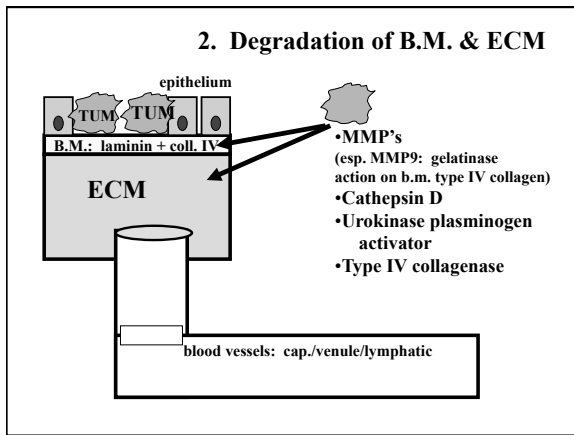
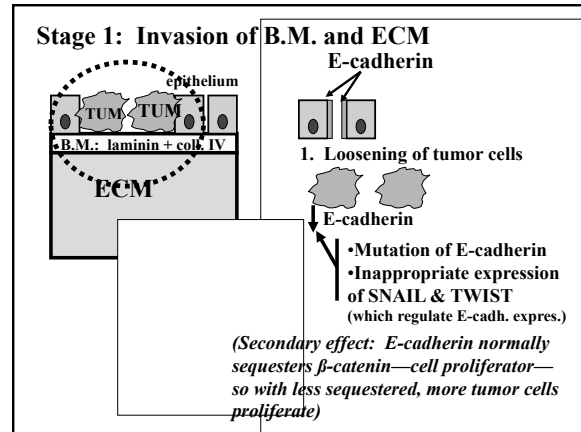
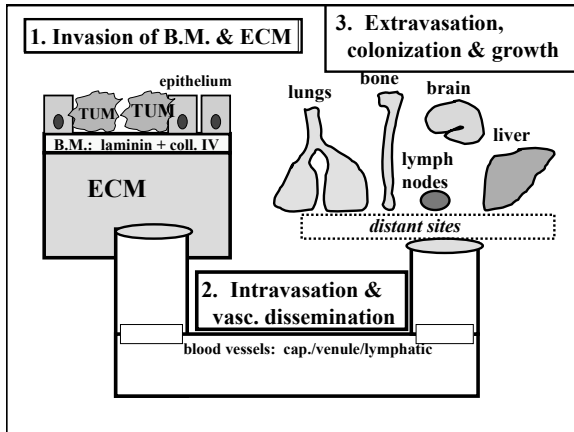
*"the best work in pathology of cancer is done by those who...are studying the nature of the seed..."*  
*"the observations of the properties of the soil may also be useful."*

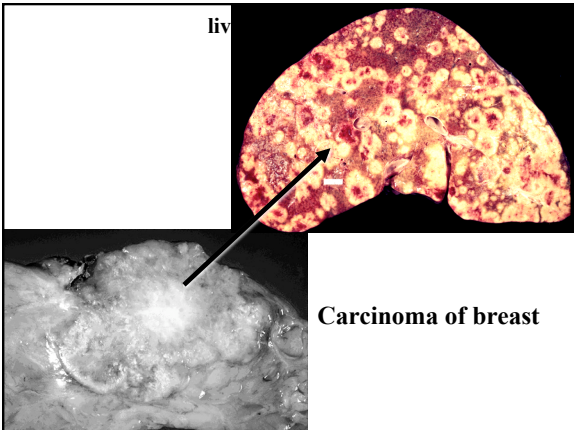
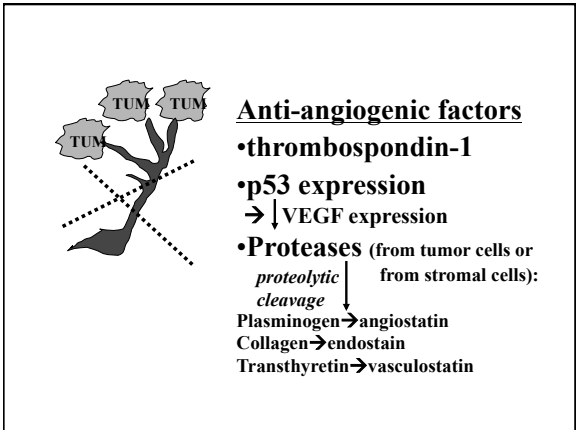
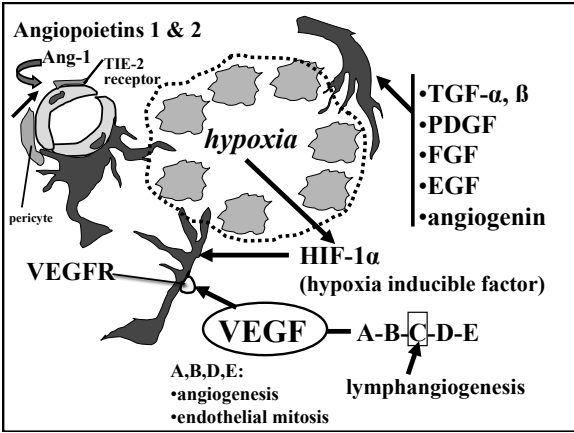
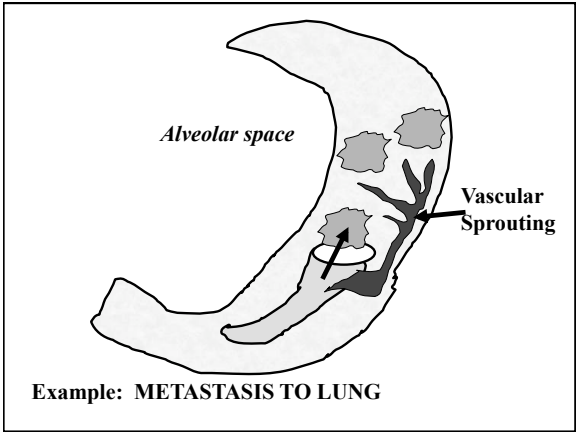
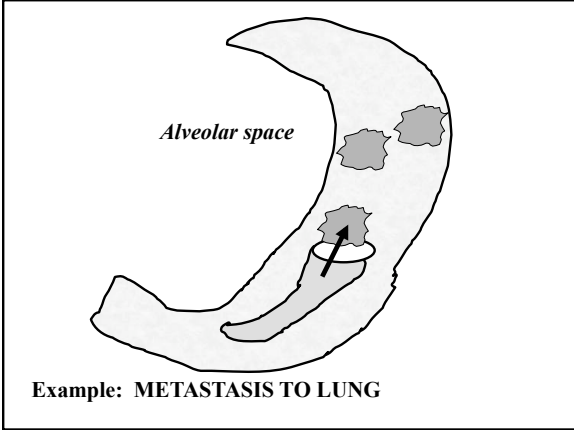
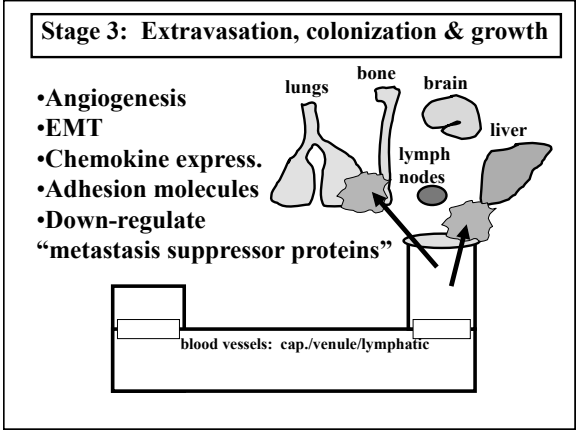


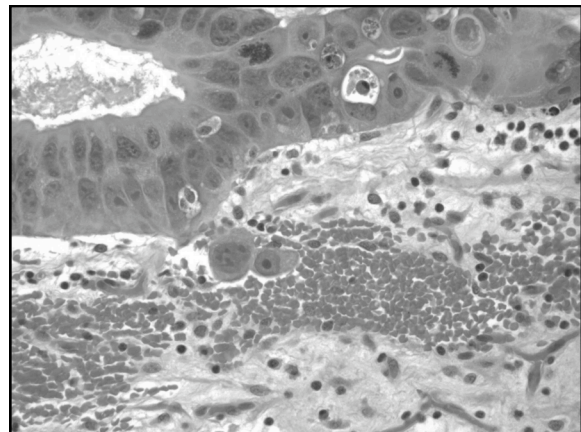
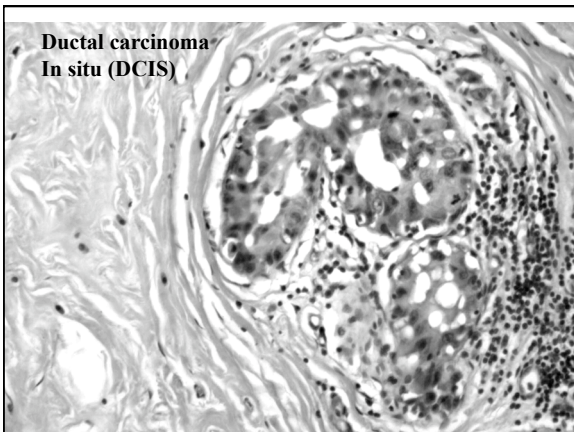
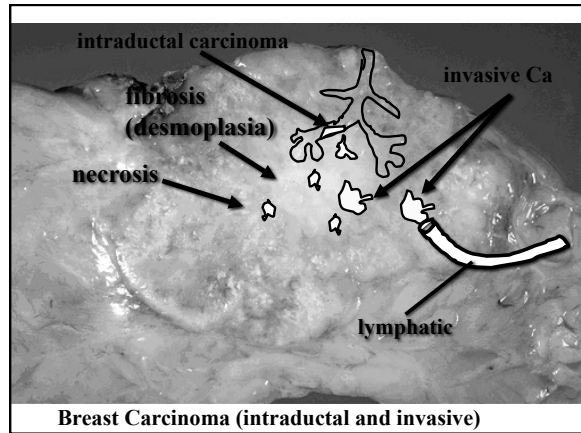
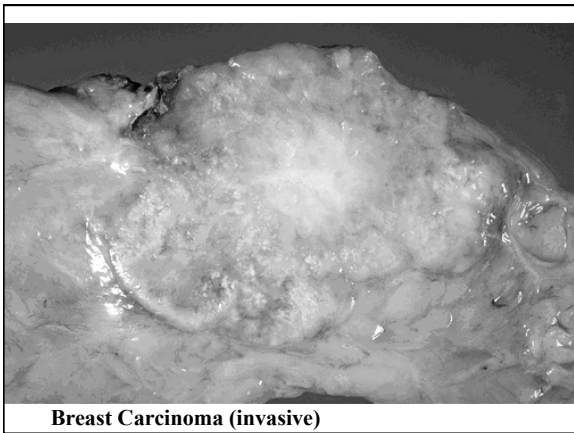
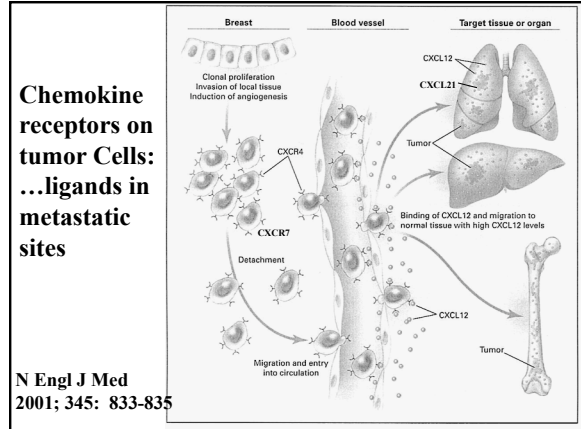
Carcinoma of breast

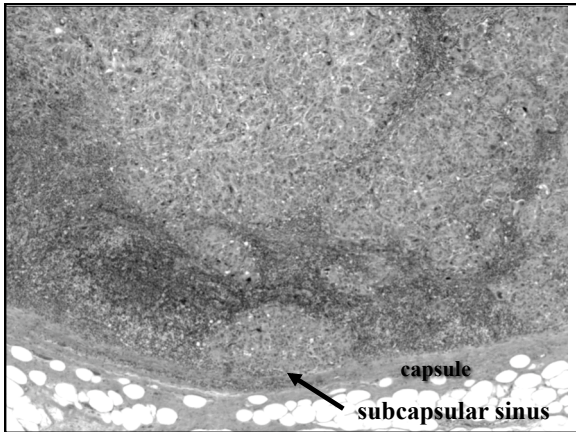
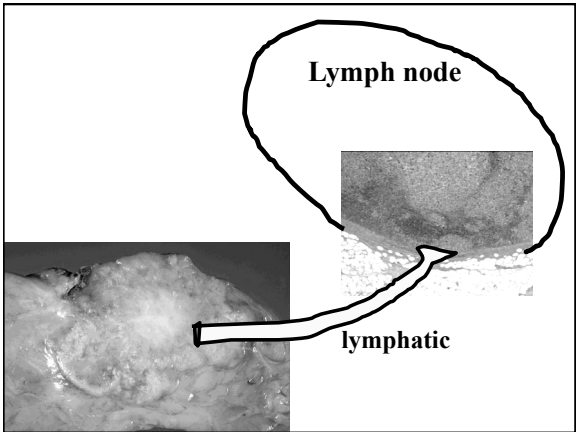
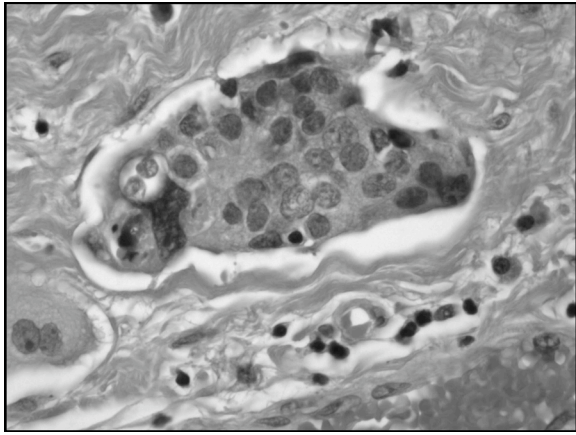
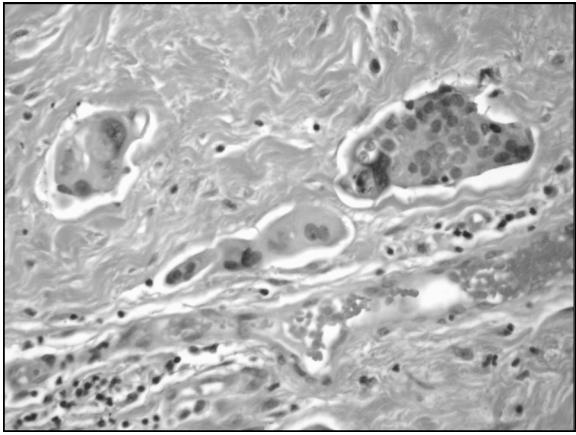
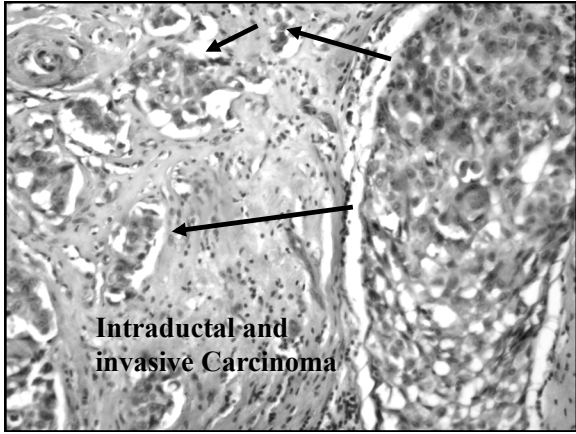
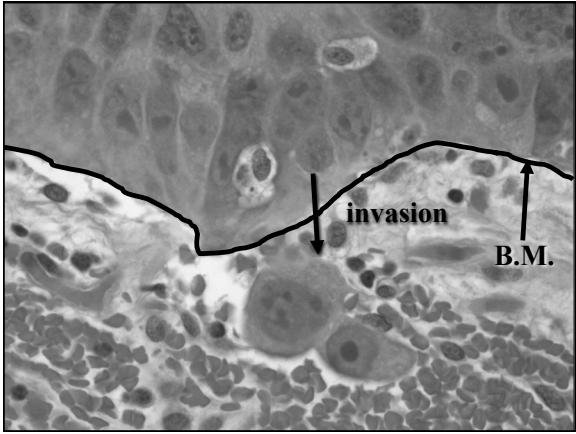
## Which malignant cells will metastasize?

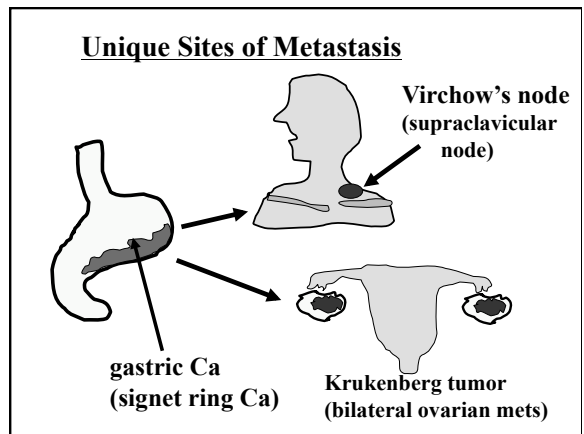
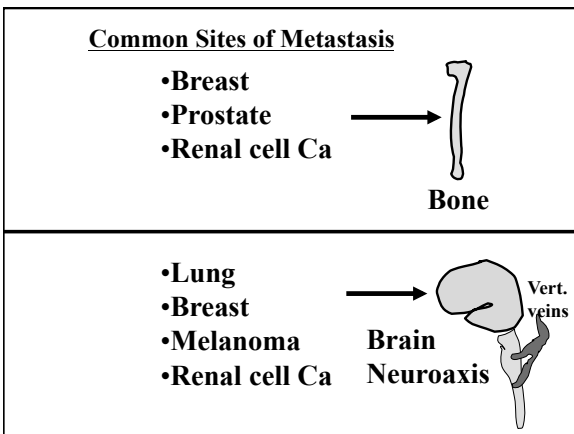
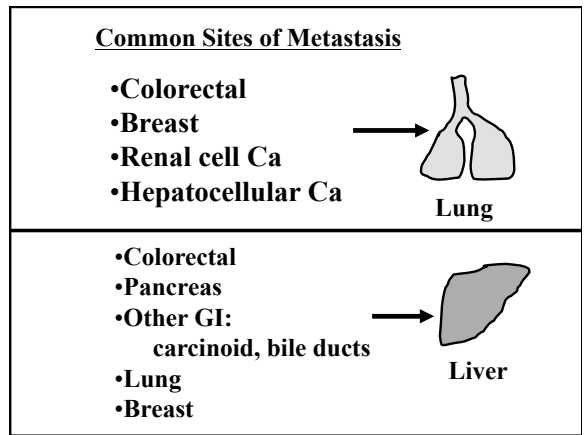
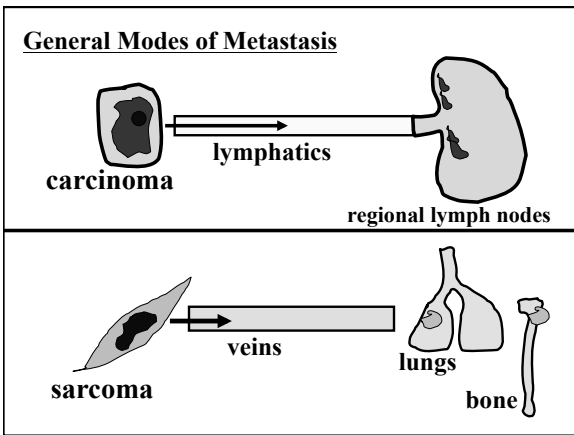
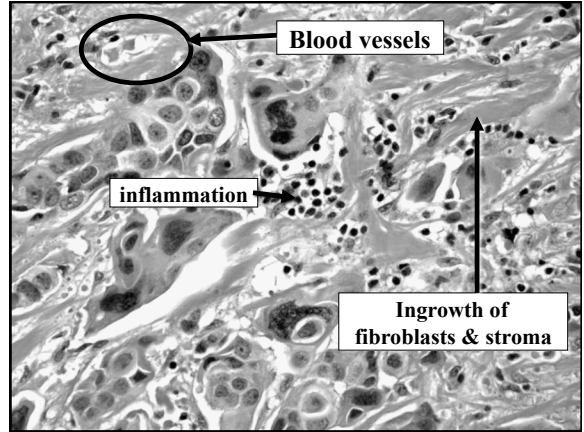
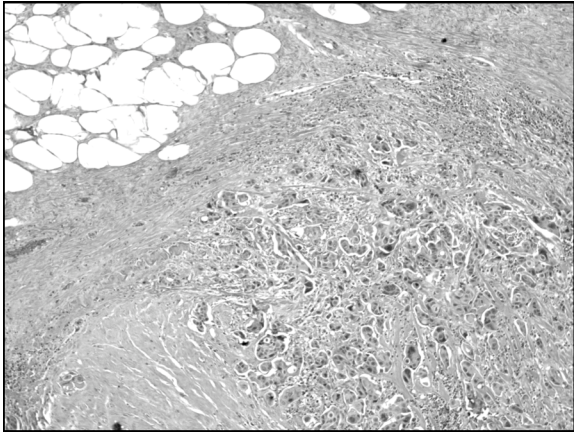




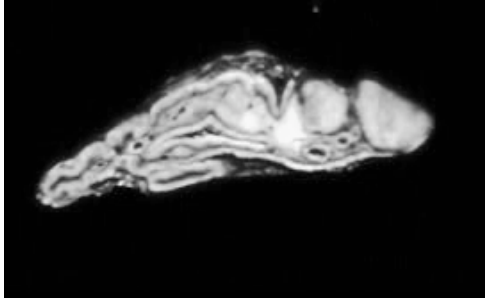






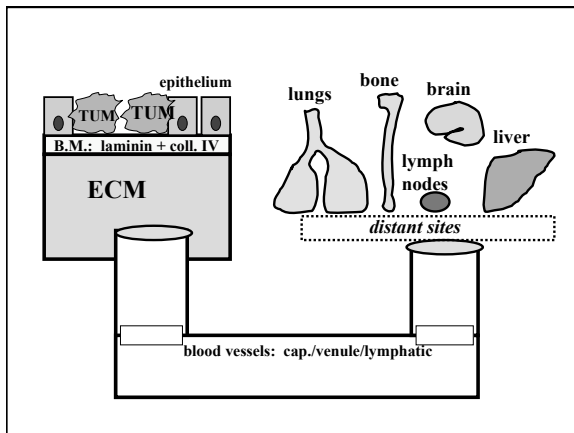


### Lung Carcinoma metastasis to Adrenal



Source: University of Alberta, Dep't of Laboratory Medicine & Pathology

# Therapeutic Implications



Anti-angiogenic agents		
Agent	Mech. of action	Neoplasm(s)
	<i>Monoclonal Ab</i>	
<b>Bevacizumab</b>	⌋ against VEGF	colorectal
<b>Sunitinib</b>	Multi-kinase inhibitor of VEGFR, PDGFR	renal cell; GIST
<b>Sorafenib</b>	Multi-kinase inhibitor: VEGFR, PDGFR, C-kit, Raf	renal cell
<b>Anti-chemokine receptors</b>		