Metastasis, the leading cause of cancer related mortality, is a highly orchestrated process involving angiogenesis, invasion, intravasation and survival in the vasculature and extravasation and growth at distal sites. The Maheswaran and Haber labs are focused on understanding the mechanism of this process using in vitro and in vivo model systems and circulating tumor cells, which are putative metastatic precursors. The expression of HOXB9, a transcription factor, and BTG2, its binding partner, is deregulated in a subset of aggressive breast cancer leading to tumoral expression of several growth factors which modify the tumor microenvironment. Using breast cancer cells with modulated expression of HOXB9 and BTG2 as model systems, we intend to gain insight into the pathways that drive tumor progression and thus render tumor cells susceptible to targeted therapeutic intervention.
HOXB9 overexpressing breast tumors produce growth factors to promote tumor progression.

Selected Publications:


