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The epithelial-mesenchymal transition (EMT) is a compulsory step in the progression from primary tumor to metastatic breast cancer. Because patients rarely die from primary tumors, we aim to better understand the biochemical mechanisms involved in EMT in breast cancer. One major regulator of EMT is the transcription factor Snail1 implicated in regulation of multiple cellular processes including cell proliferation and survival, cell invasion and migration, and tumor initiating potential. In order to understand Snail1 involvement in breast cancer growth and metastasis, we have generated transgenic knock out mice. Mice possess the allele MMTV-PyMT, leading to rapid development of highly metastatic breast tumors, using MMTV-LTR driven expression specifically in the mammary gland. The Snail1 gene is deleted in mammary epithelium using the Cre-lox recombination system, through crossing MMTV-PyMT to MMTV-Cre and Snail flox mice. Using this transgenic mouse model, we characterized primary tumor growth and lung metastasis through histological staining and microscopy. We find Snail1 to play an essential role in the growth of primary mammary tumors and progression to lung metastasis.