The epididymis is the major component of the testicular excurrent duct system and is essential for sperm maturation. In Canada, 16% of couples are infertile and half of infertility problems are associated with men. Sperm maturation is necessary for fertility and occurs in the epididymis. Little is known regarding the differentiation of cells that comprise the adult epididymis and their contribution to infertility. This presentation will focus on the identification and regulation of adult, or mesenchymal, epididymal basal stem cells and their potential implication in male infertility.