Prof. Chawnshang CHANG
George Whipple Distinguished Professor,
Departments of Urology and Pathology,
University of Rochester, Rochester, New York

Dr. Chawnshang Chang's research focuses on the **Androgen Receptor (AR**) and TR2/TR4-TR3 Nuclear Receptors he cloned in 1988. His pioneer cloning of human and rat Androgen Receptor (Science-1988) represents the landmark discovery in the androgen-AR field that allows Urologists for the first time to monitor the AR status of processing prostate cancer and dissect the mechanisms for failure of androgen deprivation therapy. Dr. Chang then discovered the first AR coregulator (1996-PNAS) that lead to subsequent findings of more than 100 such coregulators and their function in the modulation of Androgen-AR functions in various diseases. In 2002 Dr. Chang's lab generated the first floxed AR mouse (PNAS-2002) that could knockout AR in a selective cell, which then led to the discoveries of AR pathophysiological functions in many diseases, such as SBMA-Neuro Disease (Nature Medicine-2007), Male-Female Fertility (PNAS-2004), Metabolosm Syndrome (Diabetis-2005), Neutropenia (JEM-2009), Bladder Cancer (JNCI-2007), Breast Cancer (JEM-2003), Liver Cancer (Gastroenterology-2008), Wound Healing (JCI-2009). By knockout AR in individual cell of prostate, Dr. Chang's lab then discovered AR could play dual roles in prostate: being an suppressor to CK5-basal intermediate epithelial cell, an survivor to CK-8 luminal epithelial cell and a proliferator to stromal cell (PNAS-2008). These findings of differential AR roles in individual cells of prostate not only help to explain why androgen deprivation therapy via systematic suppression androgen would fail, it also help to develop new drugs (Nature Medicine-2007, and Paper in Preparation) to target AR in selective prostate cell to battle prostate cancer. Dr. Chang published 302 papers in the AR-Urology field and trained more than 110 Ph.D. students/post Drs.; over 60 of his trainees are now professors in various Universities.