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Major Professor: Joan Jorgensen

Degree Objective: Ph.D. Endocrinology and Reproductive Physiology

Background: BS Biology Univ Iowa, Iowa City, IA, BA Psychology Univ Iowa, Iowa City, IA

Current Research Project:

The essential link between prostate growth and androgens has been long established and is relatively well understood, but prostate cancers eventually become resistant to androgen deprivation therapies after initial response and the mechanism of this resistance is unknown. Intraprostate hormone synthesis, whether through de novo means or adrenal precursors, is a promising candidate for the source of this resistance. Identification of genes involved in this aberrant steroidogenesis will provide new understanding of and potential treatments for castration resistant prostate cancer.

We have identified a potential gene of interest, steroidogenic factor 1 (SF1), which may play a role in prostate cancer. SF1 is a major regulator of normal steroidogenesis in many tissues such as the gonads and adrenal gland. It has also been implicated in the growth and survival of human endocrine cancers (Lin 2009, Doghman 2007, Ramayya 2010). Our preliminary studies show that SF1 is expressed in prostate cancer cell lines and primary human prostate cancer tissues. Considering the role of SF1 steroidogenesis in other tissues, it is therefore reasonable to suspect that SF1 is playing a role in intraprostate hormone synthesis in castration resistant prostate cancer. Our hypothesis is that SF1 is necessary and sufficient to promote steroidogenesis, and thereby growth and survival, in castration resistant prostate cancer.

Honors:

NIH T32 Trainee; NIH Ruth L. Kirschstein National Research Service Award NIH T32-HD041921.

Grants Received:

NIH T32 Trainee; NIH Ruth L. Kirschstein National Research Service Award NIH T32-HD041921

Publications:

National Presentations:

Other Presentations:

S.R.Lewis, J.S. Jorgensen. Developing Models to Study Hedgehog Induced Steroidogenic Factor 1 Expression and Steroidogenesis. ERP Annual Symposium 2010.

ERP Service:



ERP student social event planner

ERP Recruitment Committee