Award Number: W81XWH-12-1-0212

TITLE: Wnt/beta-Catenin, Foxa2, and CXCR4 Axis Controls Prostate Cancer Progression

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Wnt/beta-Catenin, Foxa2, and CXCR4 axis controls prostate cancer progression

Wnt/beta-Catenin signaling and associated target genes are implicated in the establishment of bone metastasis and in the development of castration resistant prostate cancer. Our previous studies have shown that Foxa2 is a Wnt/beta-catenin target gene in prostates. Our preliminary study suggests a Wnt$^-$Foxa2$^-$CXCR4 axis that is involved in PCa bone metastasis, and activation of this axis provides survival mechanisms for PCa cells following androgen deprivation. The hypothesis is that the Wnt/beta-catenin activation of Foxa2 and CXCR4 promotes progression to CRPCa and facilitates bone colonization by PCa cells, and that targeting this axis will provide a novel treatment for PCa bone metastasis and relapse after androgen ablation.

Last October 1st, I moved from Vanderbilt to LSU Health Sciences Center, Shreveport, LA. This award is undergoing an institutional transfer. Since funds have been tied up during the transition, I have not been able to conduct any research related to this project since I moved to LSUHSC.
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Introduction
Due to the transitional state of the award most of last year, we conducted few experiments.

Body
We have optimized methods for invasion assays and stroma/epithelia co-culture. These methods will be used in the future research related to this project.

key research accomplishments
We have optimized methods for invasion assays and stroma/epithelia co-culture.

Reportable outcomes
none

Conclusions
We are ready to continue the research related to this project.

References
None

Appendice
None