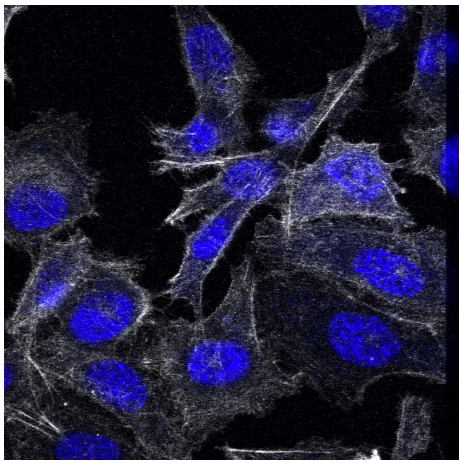

Novel therapeutic targets in the androgen receptor signaling pathway for prostate cancer

Unmet Need

Prostate cancer is the most common malignancy in men. The most recent CDC data demonstrates that prostate cancer makes up 12.2% all new cancer cases in the U.S. at 207,430. Prostate cancers express the androgen receptor (AR) and rely on androgens for growth and survival. While 80% of patients with prostate cancer respond favorably to initial androgen ablation therapy, most patients experience a relapse of the disease within 1-2 years. There is a need for alternate and more effective therapeutic targets.

Technology

Duke inventors have reported a novel target for treating prostate cancer as well as methods of screening and identifying lead compounds. They have identified calcium/calmodulin-dependent protein kinase kinase b (CaMKK-b) as a viable therapeutic target treating prostate cancer. The inventors have demonstrated that androgen-mediated migration occurs through a CaMKK-b-AMPK-dependent pathway and pharmacological disruption of this pathway inhibits metastasis and migration of prostate cancer cells.

Other Applications

This target could be applicable to a variety of other cancers, and the inventors also provide methods to diagnose and detect cancer in a subject, as well as a method for evaluating cancer stage in a subject.

Advantages

- A first-in-class therapeutic target for prostate cancer
- IP includes compounds as well as methods for screening and identifying new ones
- Provides a method for the production of an antibody that specifically binds to the C-terminal portion of CaMKK-b
- Currently no other pharmaceutical compound in clinical trials or on the market modulating CaMKK-b

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Patent Information

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Publication(s)

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External Link(s)

• From the lab of Dr. Donald McDonnell