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AKR1C3 and Androgen Receptor-Inhibiting Compounds for Treatment of Advanced Cancers

Tech ID: 32219 / UC Case 2020-050-0

ABSTRACT

Researchers at the University of California, Davis have developed compounds with the potential to be dual inhibitor therapies to target AKR1C3 and the androgen receptors that promote malignant cell growth.

FULL DESCRIPTION

Some advanced cancers defy conventional chemotherapy and other common treatments. There is a need for new, clinically available therapies to treat these various advanced cancers – including prostate cancer. Advanced prostate cancer can be particularly difficult to treat if current androgen-related treatments (which can be initially effective) begin to develop resistance to traditional clinical approaches. Evidence from ongoing research globally indicates that androgen receptors (AR) and its variants ARv7 and AKR1C3 can promote cancer progression, either in prostate cancer cells themselves or by reducing the efficacy of prostate cancer therapeutics. Inhibiting AR/ARv7 and AKR1C3 could possibly improve treatment success rates by overcoming this resistance to current therapies.

Researchers at the University of California, Davis have synthesized several dual inhibitors of AR and AKR1C3. These compounds were developed with the potential to inhibit AR/ARv7 and AKR1C3 expression and the subsequent activity of prostate cancer cells. The compounds show promise as mono or combination therapies that can help overcome resistance to the current therapeutics used to treat advanced prostate cancers.

APPLICATIONS

- ▶ Treatment of prostate and advanced cancers in cases where other treatment protocols have proven ineffective

FEATURES/BENEFITS

- ▶ Inhibits malignant cell growth
- ▶ Helps reduce resistance to current prostate cancer treatment protocols
- ▶ Targets ARv7 and AKR1C3

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	230022235	01/26/2023	2020-050

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ [Novel Prostate Cancer Treatment](#)
- ▶ [Steroid Sulfatase Inhibitors For Hormone Related Cancers](#)
- ▶ [Inhibitors of Bromodomain and Extra-Terminal \(BET\) Family Proteins as Potential Treatments for Drug-Resistant Tumors](#)

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OTHER INFORMATION

KEYWORDS

Prostate cancer, Advanced cancers, AKR1C3 inhibitor, Androgen receptor inhibitors

CATEGORIZED AS

- ▶ **Medical**
 - ▶ Disease: Cancer
 - ▶ New Chemical Entities, Drug Leads
 - ▶ Therapeutics

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