

Study shows further benefits of noscapine for prostate cancer

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New research has revealed a major breakthrough in the use of cough medicine ingredient noscapine as a prophylactic treatment for prostate cancer.

The study shows that noscapine inhibited [tumor growth](#) in mice and also limited the spread of tumors without causing any side effects.

The collaborative pre-clinical laboratory research was conducted by Dr. Israel Barken, of the [Prostate Cancer](#) Research and Education Foundation (PCREF), Moshe Rogosnitzky, of the MedInsight Research Institute and Dr. Jack Geller, of the University of California San Diego.

They concluded that noscapine administered as a preventive measure may offer significant benefits in the management of prostate cancer, a disease that kills more than 28,000 men in the U.S. each year.

Their findings said: "Pre-treatment with noscapine confers a significant benefit compared with control in both primary tumor growth and primary tumor growth- inhibition rate and exhibits an extremely favorable tolerability profile."

The research team is now keen to take their work further by examining the effects of noscapine - a non-addictive derivative of opium - as a prophylactic agent given to patients following [prostate cancer surgery](#) or radiation.

Dr. Barken, Founder and Medical Director of the PCREF in San Diego, California, said: "PCREF is now seeking sponsorship for clinical data collection in post-surgery patients who are at high-risk of recurrence for their prostate cancer.

"Based on our research so far, we believe that noscapine could be a very promising treatment to prevent recurrence in such cases due to its excellent safety record and oral bioavailability."

The latest research focused on pre-treating mice with noscapine before injecting them with prostate [cancer cells](#). This resulted in the tumor growth rate being two-thirds smaller in the noscapine group compared with a non-noscapine group.

The study also found that lung metastasis rates were 80% less in the mice pre-treated with noscapine, while the experts noted that the noscapine group suffered no cancer-related weight loss - compared with significant weight loss in the non-noscapine group.

Noscapine has been used worldwide since the 1950s as an ingredient in over-the-counter cough medicines and was originally suggested as an anti-cancer agent in the early 1960s. But major studies of its anti-cancer properties have only taken place in recent years.

The latest research is the result of ongoing collaborative work between the Prostate Cancer Research and Educational Foundation (PC-REF) and Baltimore-based MedInsight Research Institute. Their previous work has shown that noscapine has properties that limit the growth of prostate cancer.

The latest study was based on the theory that prostate cancer could be a suitable target for a risk-reduction approach because of its high prevalence and significant morbidity and mortality.

Moshe Rogosnitzky, co-founder and Director of Research at the MedInsight Research Institute, said: "There is an ever-growing need for effective ways to prevent recurrence of cancer after curative surgery.

"It is MedInsight's belief that many effective treatments for this and other diseases can be selected from the vast armory of existing off-patent and unpromoted drugs. The results of this study, once confirmed in a clinical trial, are an example

where we may yet again have an agent that not only has an enviable safety record, but is already available for use today."

The findings of the pre-clinical study are published in *Anticancer Research* (Volume 30:2, 2010, pp. 399-402) on March 19 2010.

Provided by MedInsight Research Institute

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