

MOVEMBER'S RESEARCH FUNDS IN ACTION: GLASGOW

Working with our men's health partner, Prostate Cancer UK, 17 Project Grants and Pilot Awards have been made possible with Movember funding. Awarded across the UK's leading research institutions, these projects focus on vital prostate cancer research to identify early results.

A NEW DRUG TO TREAT ADVANCED PROSTATE CANCER

Researchers at the Strathclyde Institute for Pharmacy and Biological Sciences at the University of Strathclyde, Glasgow, have developed a completely new compound to 'turn off' a protein that appears to be key to prostate cancer development. They're using Movember funding to refine this treatment so that it can be tested as a once-daily dose.

WHAT IS THE PROJECT?

Early hormone-dependent prostate cancer can be treated surgically, by radiation and by hormone-blocking drugs. The majority of prostate cancer patients who receive treatment respond favourably, with response rates of over 80% reported. However, within 12-18 months a large proportion of these patients relapse and progress to advanced stage prostate cancer, which is resistant to the effects of the hormone-blocking drugs. Once diagnosed with the advanced stage of the disease, cancer chemotherapy, with drugs such as docetaxol treatment, prolongs life expectancy by an average of 3 months. Of the 1 in 8 men diagnosed with prostate cancer, 1 in 33 will die of the advanced disease.

We have identified a protein that is found in higher levels in patients with advanced prostate cancer and appears to be key to its development. We've made completely new drug-like compounds that can prevent this protein from working and have the potential to turn off signals that maintain the cancer's survival. This is a totally new style of treatment that has never been tried before in the clinic. However, we need to refine our compounds further to make sure that they are powerful and stable enough to be given to patients as a once-daily oral dose.

WHY IS THIS IMPORTANT?

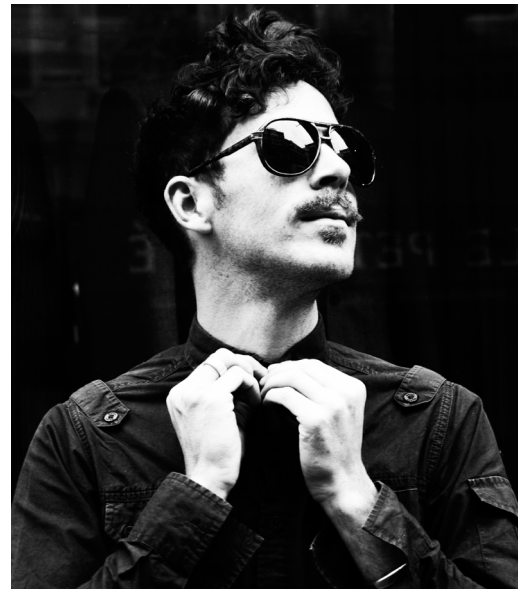
Docetaxol prolongs life by 3 months and is one of the very few life-extending treatments for men with advanced stage prostate cancer. We have identified a new way to treat the disease that offers a way of extending the life expectancy of these patients.

This treatment could offer a way of increasing the life expectancy of men with advanced prostate cancer.

WHO'S LEADING THE TEAM?

The team will be led by Professor Simon Mackay, Professor of Medicinal Chemistry at the Strathclyde Institute for Pharmacy and Biological Sciences, Glasgow. The expected time period of this study is 3 years.

OUR VISION: TO CHANGE THE FACE OF MEN'S HEALTH.



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IMPROVING RADIATION TREATMENT FOR PROSTATE CANCER

Researchers at the Institute of Cancer Sciences, University of Glasgow, are conducting research into a combination of drugs to help improve the efficiency of radiotherapy, whilst limiting the damage to nearby cells and organs. With Movember funding, this three year project plans to help revise and revolutionise the way radiotherapy is used in prostate cancer treatment.

WHAT IS THE PROJECT?

The project will evaluate the combined use of drugs that make prostate cancer cells more susceptible to radiation therapy, a treatment that selectively targets and binds to prostate cancer cells that have spread outside the prostate. This combination approach is expected to provide the first effective treatment for patients with prostate cancer that has spread outside of its original site.

Within the test phase, researchers will determine the interaction between the two treatments: 'Trofex', which selectively binds to prostate cancer cells outside the prostate, and 'radiosensitisers', which makes cancer cells more sensitive to radiation therapy. The end goal of which will be to establish the most effective combination to treat prostate cancer that has spread through the body.

WHY IS THIS IMPORTANT?

Although radiotherapy is widely used in treating prostate cancer patients, damage to neighbouring organs and cells limits the radiation dose that can be delivered. The use of targeted radiotherapy 'Trofex' enables the delivery of radiation selectively to cancerous sites, whilst not harming normal tissue. Combining this treatment with 'radiosensitisers', which increase the susceptibility of cancer cells, is expected to provide optimal treatment for patients with metastatic prostate cancer.

WHO'S LEADING THE TEAM?

This project will be led by Dr Rob Mairs of the CRUK Beatson Laboratories in the Institute of Cancer Sciences, at the University of Glasgow. The expected time period for the study is 3 years.

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