

# Searching for better ways to treat prostate disorders

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Associate Professor Kevin Pflieger

Innovative new technology has been used to identify and profile a novel combination of proteins that may improve treatment for prostate disorders. The study will be published in the April 13th 2012 edition of the *Journal of Biological Chemistry*.

Researchers from the Western Australian Institute for Medical Research (WAIMR) and The University of Western Australia, in collaboration with the Monash Institute of [Pharmaceutical Sciences](#) in Melbourne,

have used the novel G Protein-Coupled Receptor Heteromer Identification Technology.

Study senior author Associate Professor Kevin Pflieger co-invented this technology to identify and study 'G protein-coupled receptors', a family of 'receptors' that enable cells to respond to hormones and neurotransmitters. They are extremely important in treating disease and are the target of up to 50 per cent of all [therapeutic drugs](#).

The technology was developed in the Laboratory for [Molecular Endocrinology](#) at WAIMR/UWA and assigned to the UWA spin-out company Dimerix Bioscience.

Associate Professor Pflieger, winner of the 2011 Australian Museum 3M Eureka Prize for Emerging Leader in Science, said G protein-coupled receptors were very important proteins on the outside of our cells that enabled signals from hormones and neurotransmitters to be transferred into the cell.

"Scientists now realise that these receptors do not work in isolation, but in particular combinations, which they call 'heteromers'," he said. "It is suggested that a number of side effects from drugs may result from not fully understanding which combinations form and what happens when they do."

Professor Pflieger said prostate disorders such as [benign prostatic hyperplasia](#) affected nearly every man at some point in his life. Better drugs with fewer side effects were needed to reduce or eliminate the need for [surgical intervention](#) in more serious cases, he said.

"This publication is itself the culmination of over four years of research and builds upon a decade of technological development in our laboratory," Professor Pflieger said.

"We hope that the identification of this novel combination of receptors, and the novel functioning that results from their interaction, will provide opportunities to develop better treatments for debilitating prostate disorders that affect so many ageing men."

Provided by Western Australian Institute for Medical Research

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