

New prostate cancer biomarkers move closer to clinical use

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Conway Fellow, Professor William Watson and Professor John Fitzpatrick, UCD School of Medicine and Medical Science and Mater Misericordiae University Hospital recently received a translational research award for the validation of a panel of serum biomarkers to inform surgical intervention for prostate cancer.

One of four research projects to be funded under the joint Health Research Board and Science Foundation Ireland initiative, this proposal ultimately aims to develop a clinically-applicable predictive tool to identify the grade and stage of prostate cancer and inform the clinician and patient of the most appropriate [treatment strategy](#).

The proposal is based on recently published and preliminary data by the UCD prostate cancer group and will involve independent external validation of the panel of proteins by international collaborators in Austria and Australia prior to any commercial development taking place.

Dr Sheng-Fei Oon (MD research student) published reviews in Nature Reviews Urology and the BJU International that systematically identified, for the first time, all the areas of greatest unmet need for biomarkers in prostate cancer and has directed the focus of international biomarker research efforts to these areas maximising clinical utility.

Taking this as a guide, Mr Yue Fan (PhD student on the UCD Bioinformatics and [Systems Biology](#) PhD programme) used a proteomics approach and novel bioinformatics analysis to identify lists

of potential candidate [protein biomarkers](#). These findings, published in the [Journal of Proteome Research](#), will help stratify prostate cancer patients into their appropriate treatment groups.

“There are many hundreds of biomarkers for prostate cancer but only one in clinical use because the others have either not succeeded in the validation phase or were not deemed useful at the bedside” stated Professor William Watson who leads the group and the Irish Prostate Cancer Research Consortium.

“We have taken the approach of firstly identifying the relevant clinical questions and then designing appropriate discovery and validation efforts with a clearly defined comparison population using carefully calibrated and standardised collection, storage and processing protocols.”

This multi-faceted, but unified approach is placing Irish-based prostate cancer research in the forefront of many international [prostate cancer](#) research interests.

More information: References:

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