

CD44 VARIANT 6 (CD44v6) AS A CANCER STEM CELL BIOMARKER IN PROSTATE CANCER PROGRESSION AND CHEMO-/RADIO-RESISTANCE

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Prostate cancer (CaP) is the most common cancer in men in western countries, accounting for estimated 161,360 new cases and 26,730 deaths in the US in 2017. Chemo-/radio-resistance is an important reason for CaP progression and metastasis. CD44 is a well-documented cancer stem cell (CSC) biomarker, and one of its variants, CD44 variant 6 (CD44v6) is closely associated with aggressive behaviour and correlates with poor prognosis in a variety of human cancers. Our previous study has demonstrated increased expressions of CD44v6 in metastatic CaP cell lines and human CaP tissues which was associated with CaP progression and chemo-/radio-resistance *in vitro*. However, the role of CD44v6 in CaP progression and therapeutic resistance *in vivo* is still uncertain. The aim of this study was to investigate the role of CD44v6 in CaP development and chemo-/radio-resistance as well as underlying pathways *in vivo*, and find whether it is a suitable therapeutic target for CaP therapy.

BIOGRAPHY

Jie Ni is a Scientific Officer and Hospital Scientist in Department of Radiation Oncology, Cancer Services at St George Hospital, Sydney and Conjoint Lecturer in St George and Sutherland Clinical School, Faculty of Medicine at UNSW Sydney, Australia. He obtained his M.D. and B.A. degrees from China in 2011 as an outstanding graduate and national scholarship awardee and completed his PhD in Faculty of Medicine at UNSW Sydney in 2015. During his PhD candidature he was awarded Prostate and Breast Cancer Foundation Scholarship from 2012-2015, and Outstanding Self-Financed Students Abroad Award of China in 2013. The nature of the degrees has equipped him with a strong background of medical practice, and has involved a great deal of independent basic, translational and clinical research. He has 19 publications (6 as the first-author, 2 invited reviews) on peer-reviewed journals on novel therapeutic modalities and targets on prostate, ovarian, cervical and breast cancers. His publications have been cited more than 480 times with a Scopus h-index of 11 and he constantly publishes in top-ranking journals including Theranostics, Oncotarget, Cell Death and Disease, Prostate, and Cancer Metastasis Reviews. He has been an executive committee member of the Australian Association for Chinese Biomedical Scientists since 2011, a member of American Association for Cancer Research since 2012, European Association for Cancer Research since 2017 and European Society for Medical Oncology since 2017. He is currently co-supervising and mentoring PhD students, ILP students and visiting research fellows, and has served as a reviewer for numerous journals and universities.

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