



## Dr Luc Furic

Head, Prostate Cancer Research Laboratory



Monash Biomedicine Discovery Institute  
Cancer Program

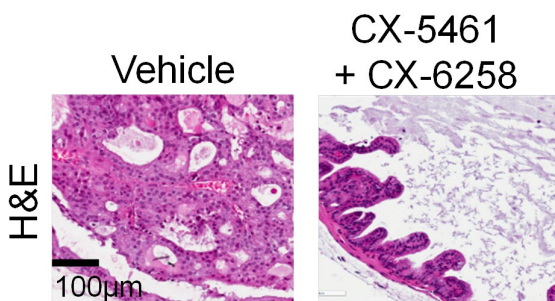
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Approximately 1 in 8 cancer related-deaths in Australian males is due to prostate cancer. Dr Furic's laboratory uses biochemical and molecular biology approaches to gain a better understanding of the molecular mechanisms responsible for prostate cancer progression. His research program is centred on survival signalling in prostate cancer cells and its role in the transition from hormone-sensitive to castrate-resistant prostate cancer. Dr Furic is an expert in mouse models of prostate cancer and cellular signalling regulating mRNA translation initiation and RNA stability. His current research projects are focussed on the identification of new combination therapies targeting protein synthesis, estrogen signalling and cell motility and invasion.

### Research Projects

1. Role of mRNA translation initiation complex in tumour growth and metastasis
2. Role of estrogen receptor alpha in aggressive prostate cancer
3. Development of combination therapies targeting the ribosome in prostate cancer



Pre-clinical efficacy of targeted therapy against Pol I (CX-5461) in combination with pan-PIM inhibition (CX-6258), in a genetically-engineered mouse models (GEMM) of prostate cancer. This combination strategy shows promising efficacy in inhibiting MYC-driven prostate cancer and has implications for therapy-resistant disease.

### Selected significant publications:

1. Rebello RJ, Kusnadi E, Cameron DP, Pearson HB, Lesmana A, Devlin JR, Drygin D, Clark AK, Porter L, Pedersen J, Sandhu S, Risbridger GP, Pearson RB, Hannan RD, **Furic L**. 2016. The Dual Inhibition of RNA Pol I Transcription and PIM Kinase as a New Therapeutic Approach to Treat Advanced Prostate Cancer. *Clin Cancer Res* 22: 5539-5552
2. Takizawa I, Lawrence MG, Balanathan P, Rebello R, Pearson HB, Garg E, Pedersen J, Pouliot N, Nadon R, Watt MJ, Taylor RA, Humbert P, Topisirovic I, Larsson O, Risbridger GP, **Furic L**. 2015. Estrogen receptor alpha drives proliferation in PTEN-deficient prostate carcinoma by stimulating survival signaling, MYC expression and altering glucose sensitivity. *Oncotarget* 6: 604-16
3. **Furic L**, Rong L, Larsson O, Koumakpayi IH, Yoshida K, Brueschke A, Petroulakis E, Robichaud N, Pollak M, Gaboury LA, Pandolfi PP, Saad F, Sonenberg N. 2010. eIF4E phosphorylation promotes tumorigenesis and is associated with prostate cancer progression. *Proc Natl Acad Sci U S A* 107: 14134-9
4. Kim YK, **Furic L**, Parisien M, Major F, DesGroseillers L, Maquat LE. 2007. Stauf1 regulates diverse classes of mammalian transcripts. *EMBO J* 26: 2670-81
5. Kim YK, **Furic L**, Desgroseillers L, Maquat LE. 2005. Mammalian Stauf1 recruits Upf1 to specific mRNA 3'UTRs so as to elicit mRNA decay. *Cell* 120: 195-208