

# Professor Yaohe Wang



## Research Interests

My research interest is the development of new cancer therapeutic regimes to treat pancreatic cancer and other solid tumours.

My research group focuses on:

- Development of novel oncolytic mutants of adenovirus and vaccinia virus, by engineering the viral genomes to enhance anti-tumour potency while maintaining safety.
- Determination of how tumour genetic alterations modulate viral potency, to identify the potential targets that can enhance the infection of cancer cells by oncolytic viruses.
- Investigation of the adaptive immunity induced by oncolytic viruses against virus and tumours.
- Development of new cancer vaccination regimes using replicating viral vectors and re-programmed cancer cells.
- Development of immunocompetent Syrian hamster tumour models for assessment of oncolytic viruses and optimisation of new regimes for cancer viro-immune therapy.

## Major Funders

- Wellcome Trust
- Pancreatic Cancer UK
- Pancreatic Cancer Research Fund
- Cancer Research UK
- Medical Research Council
- The Royal College of Surgeons of England

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## Recent Publications

- Hiley CT, Chard LS, Gangeswaran R, Tysome JR, Briat A, Lemoine NR, **Wang Y**. Vascular endothelial growth factor A promotes vaccinia virus entry into host cells via activation of the Akt pathway. *J Virol*. 2013; 87(5): 2781-90
- Tysome JR, Li X, Wang S, Wang P, Gao D, Du P, Chen D, Gangeswaran R, Chard LS, Yuan M, Alusi G, Lemoine NR, **Wang Y**. A novel therapeutic regimen to eradicate established solid tumors with an effective induction of tumor-specific immunity. *Clin Can Res*. 2012 ;18(24):6679-89.
- Wong HH, Jiang G, Gangeswaran R, Yuan M, Wang H, Bhakta V, Muller H, Lemoine NR and **Wang Y**. Modification of the Early Gene Enhancer-promoter of Adenovirus 11: A Novel Backbone for the Development of Potent Oncolytic Viruses for Cancer Therapy. *Mol Ther* 2012, 20:306-16.
- Jiang G, Cao F, Ren G, Gao D, Bhakta V, Zhang Y, Cao H, Dong Z, Zang W, Zhang S, Wong HH, Hiley C, Crnogorac-Jurcevic T, Lemoine NR, and **Wang Y**. PRSS3 promotes tumour growth and metastasis of human pancreatic cancer. *Gut* 2010, 59: 1535-44.
- **Wang Y** \*, Gangeswaran R, Zhao X, Tysome J, Wang P, Bhakta V, Chikkanna Gowda P, Jiang G, Gao D, Cao F, Francis J, Yu J, Liu K, Yang H, Zhang Y, Zang W, Dong Z, Lemoine NR\*. CEACAM6 attenuates adenovirus infection by antagonizing viral trafficking in cancer cells. *J Clin Invest*, 2009, 119: 1604-1615. \*Joint corresponding author

