



## Seminar Announcement

### Early intervention in cancer through the tumour suppressive mechanisms that control genome stability

Date: 6 October 2016 (Thursday)

Time: 11:30am to 12:30pm

Venue: SBS Class Room 4

Host: Prof Daniela Rhodes

**Speaker: Professor Ashok Venkitaraman**  
**Medical Research Council, Cancer Unit**  
**University of Cambridge, UK**



## Abstract

Inactivation of the tumour suppressive mechanisms that control genome stability accompanies the transition from pre-malignant to invasive stages of cancer in epithelial tissues. I will discuss insights emerging from our lab's work concerning the cellular and molecular organization of these tumour suppressive mechanisms (eg., 1-4), and new approaches (eg., 5-7) that offer the potential for early intervention through improvements in detection, risk stratification or therapy.

#### Selected references:

1. Venkitaraman, A.R. (2014) Cancer suppression by the chromosome custodians, BRCA1 and BRCA2. **Science**. 343(6178):1470-5.
2. Wickramasinghe, V., Savill, J., Chavali, S., Jonsdottir, A.B., Rajendra, E., Gruner, T., Laskey, R., Babu, M., & Venkitaraman, A.R. (2013) Human inositol phosphate multikinase regulates transcript-selective nuclear mRNA export to preserve genome integrity. **Molecular Cell** 51, 737-50.
3. Jeyasekharan, A.D., Liu, Y., Hattori, H., Pisupati, V., Jonsdottir, A.B., Rajendra, E., Lee, M., Sundaramoorthy, E., Schlachter, S., Kaminski, C., Rosenfeld, Y., Sato, K., Savill, J., Ayoub, N. & Venkitaraman, A.R. (2013). A cancer-associated BRCA2 mutation reveals masked nuclear export signals controlling localization. **Nature Str Mol Biol**. 20, 1191-8.
4. Liang, H., Esposito, A., Collin, P., Surana, U. & Venkitaraman, A.R. (2014). Homeostatic control of polo-like kinase-1 engenders non-genetic heterogeneity in G2 checkpoint fidelity and timing. **Nature Commun**. 5:4048. doi: 10.1038/ncomms5048.
5. Laraia, L., G. McKenzie, D.R. Spring, A.R. Venkitaraman, and D.J. Huggins. (2015) Overcoming Chemical, Biological, and Computational Challenges in the Development of Inhibitors Targeting Protein-Protein Interactions. **Cell Chem Biol**. 22:689-703
6. Popleteeva M, Haas KT, Stoppa D, Pancheri L, Gasparini L, Kaminski CF, Cassidy LD, Venkitaraman AR, Esposito A. (2015) Fast and simple spectral FLIM for biochemical and medical imaging. **Opt Express**. 23:23511-25. doi: 10.1364/OE.23.023511
7. Ibbeson BM, Laraia L, Alza E, O' Connor CJ, Tan YS, Davies HM, McKenzie G, Venkitaraman A.R., Spring D.R. (2014). [Diversity-oriented synthesis as a tool for identifying new modulators of mitosis](#). **Nature Commun**. 5:3155. doi: 10.1038/ncomms4155