

# CMR Seminar Announcement

## Epigenetics and New Approaches in Molecular Diagnosis

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**Chief Scientific Officer, Oxford BioDynamics**  
**Director, Chronos Therapeutics and Sibelius Limited**



Alexandre Akoulitchev read mathematics, physics, chemistry, biochemistry and biophysics at PhysTech (Moscow Institute of Physics and Technology). In 1989, he was selected by the George Soros Foundation to study for a year at the University of Oxford. He then obtained his PhD in cell biology from University College London (with his research based at the Imperial Cancer Research Fund). Dr Akoulitchev spent six years at the Robert Wood Johnson Medical School, NJ, USA as a research assistant funded by the Howard Hughes Medical Institute. Upon his return to England, Dr Akoulitchev established a research laboratory at the Sir William Dunn School of Pathology at Oxford University with funding from the Wellcome Trust. He was a University Academic Fellow (Research Council UK) and a Senior Fellow of Exeter College, sponsored by Cancer Research UK, Wellcome Trust and the Medical Research Council.

### Abstract

Monitoring of the epigenetic mechanisms implicated in the regulation of gene activities offers distinct approach to detection of the key signature gene deregulations associated with the onset and progressions of various diseases. Epigenetic markers range from post-translational modifications of core histone proteins and methylated cytosine residues in DNA to regulatory non-coding RNAs and chromosome conformation signatures. Here we will present multiple independent evidence for the diagnostic value of chromosome conformation signatures and the use of the EpiSwitch<sup>TM</sup> technology in diagnostic applications for breast, prostate and skin cancers.

**Date: Wednesday, 18 January 2011**  
**Time: 09.00 am – 10.00 am**  
**Venue: Peter & Mary Fu Auditorium, NCCS, Level 4**

**Host: Prof Lucien Ooi, Surgical Oncology, NCCS**

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