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Department of Biomedical Sciences  
presents a seminar of seminar series in Cancer  
Biology, Biotherapy and Nanomedicine

# “Detecting Structural Variations using high-throughput sequencing data”

Dr. Ruibin Xi  
Peking University

**Date :** 21 July 2017

**Time:** 11:00am to 12:30pm

**Venue:** Meeting Room 2-130, 1/F, Block 2, To Yuen Building

## Abstract

Structural variations are genomic variations that lead to structural changes of DNA sequences. Copy number variations, deletions, duplications and inversions are all structural variations. Structural Variations play important roles in roles in various diseases such as in cancer and many congenital diseases. With the current high-throughput sequencing data, we can readily detect various types of structural variations. In this talk, I will introduce a few algorithms that we developed in the past few years for detecting structural variations. I will also discuss a few application examples of these algorithms in genomic studies as well as in clinical researches.

## About the Speaker

Dr. Ruibin Xi is an Assistant Professor at Peking University since 2012. He received his Ph.D from Washington University in St. Louis in 2009 and worked as a postdoctoral Research Associate at Harvard Medical School for 3 years. He was enrolled in the Recruitment Program of Global Youth Experts of China in 2013. His research areas include bioinformatics, cancer genomics, precision medicine, Bayesian statistics and big data analysis. He has authored and co-authored over 30 papers published in journals like Nature, Nature Genetics, Nature Communications, PNAS, Nucleic Acid Research, Genome Research, Cell, Bioinformatics and Bayesian Analysis.

**All are welcome!**

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