



## Department of Biological Sciences Seminar Announcement

**Chandra Verma, PhD**  
(Bioinformatics Institute, Singapore)

### Computer Simulations : Coming of Age in molecular biology

Computer simulations have come of age in modern molecular biology and are increasingly becoming an independent experimental technique in the toolbox. Highlights of how they can be used to aid/complement existing/emerging experimental methods and indeed probe areas where experimental methods fail will be presented. In particular, simulation methods will be outlined that are useful for charting conformational transitions that are the hallmark of protein functions (for example the dynamics of ligand-activated nuclear receptors). An example of a bacterial protease (FtSH of the AAA superfamily) will be used to showcase the usefulness of bringing together various experimental and computational techniques.

#### Profile

He is a Principal Investigator, leading the Computational Biology Group at the Bioinformatics Institute, Singapore. He obtained his PhD in 1990 in the field of computer modelling of biomolecular systems. He has been at the Structural Biology Laboratory at York University (the first centre of excellence identified by the UK government in 1995) since 1990 and as an associate professor/reader since 2000. His research interests include molecular modelling of biomolecular systems and development of methods to bridge the gaps that exist between /in-silico/ and /in-vitro/in-vivo/. He has over 50 publications and has developed an extensive network of collaborations with about 25 groups (experimental and computational) internationally.

URL : <http://www.bii.a-star.edu.sg/~chandra/>

**Date:** Friday, 14 May 2004  
**Time:** 4 - 5 pm  
**Venue:** LT20  
**Host:** Dr Henry Mok

**All are welcome**