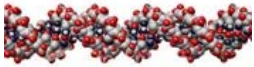

Computational Biology and Bioinformatics @ SFU

Web Site

What is Bioinformatics? The definition of bioinformatics is currently controversial, but bioinformatics can be loosely defined as the use of computers and computer science to study biological questions. It forms the intersection between molecular biology (and related biological disciplines) and computer science.

This interdisciplinary field involves researchers who work at many different points on the computer science-biology spectrum: From those who are developing new relevant algorithms, to those who are developing and using computational applications to study biological phenomena, gain new insight into the life sciences, identify new drug targets etc. This field is currently evolving, but one point is agreed upon: Bioinformatics is a blossoming field within which there remain many significant discoveries to be made.

Our research interests are generally in some of the following areas:

- Comparative Genomics
- Complexity Theory and Optimization
- Databases and Data Mining
- Eukaryotic and human genetics and genomics
- Membrane and DNA Biophysics
- Enabling technology to increase human autonomy
- 3D visualization
- Phylogenetics and Evolutionary Genomics
- Statistical Genetics and Epidemiology
- Structural Proteomics

Some current Genome Canada Projects at SFU are:

- C. elegans: Expression Profiles of Cells and Tissues
- Functional Pathogenomics of Mucosal Immunity
- Genomics Research on Atlantic Salmon