



International Course in
Automated Functional Annotation and Data Mining

November 20th to 22nd, 2013
Instituto de Ciências Biomédicas
University of Sao Paulo
Brazil

Course Program

Wednesday: Functional Annotation with Blast2GO

- Concepts of functional Annotation: Homology based function transfer, the Gene Ontology Resource
- The Blast2GO Annotation Rule and the Blast2GO annotation framework: BLAST, Annotate, Analyze Diagnosis charts, Data selection, import and export
- Learn and understand different functional annotation strategies
- Practical Session 1: You will annotate an example dataset, learn how to generate GO, InterPro and KEGG annotations, modulate intensity of annotation, curate annotation data and export results in different formats

Thursday: Data-mining on Functional Annotation

- Summarizing functional Information, exploring function on the Gene Ontology DAG, analysis of functional distributions, optimization strategies
- Functional Analysis: Perform customized graphs and pie-charts, filter data depending on functional characteristics
- Analysis of functional differences (enrichment methods): Fisher's Exact Test
- Practical Session 2: Analyse various dataset to detect functional differences and/or similarities

Friday:

- Free practical session to conclude previous exercises
- Final exercise: Combine the different aspects learned throughout the course in a final exercise.
- Outlook, course conclusions and course certificates.