# Workshop in Statistical Genetics and Computational Molecular Biology

## HUB 310: University of Washington December 16-18, 2001

### Sunday December 16:

9.00 a.m: HUB opens. Collect your name badges and folders.

9.30 a.m. Opening remarks

Session I: Chair; Rachel Mackay (Statistics, UBC);

**9.40 a.m:** Maynard Olson, Director, UW Genome Center Resequencing segments of the human genome: experimental and statistical considerations.

10.40 a.m: Leonid Kruglyak, Genome Sciences (UW) and FHCRC Analyzing Human genetic variation

11.40 a.m: BREAK

**12.00 noon:** Ram Samudrala. Computational Genomics, Microbiology, UW. Modelling genome structure and function

**1.00 p.m:** LUNCH

Session II: Chair; Elisabeth Rosenthal (Biostatistics, UW)

2.00 p.m: Elizabeth Thompson. Department of Statistics, UW Inferring gene locations from genetic data on related individuals

**3.00 p.m:** Jinko Graham, Department of Statistics and Actuarial Science, SFU Testing and estimation of recombination breakpoints in a set of aligned sequences.

4.00 p.m: BREAK

**4.20 p.m.:** Dr. John Mittler, Department of Microbiology, UW Population genetics and dynamics of HIV-1 infection

5.20 p.m.: END OF SUNDAY SESSIONS

#### Monday December 17:

- Session III: Chair; Zheng Zhang (Biostatistics, UW)
- **9.00 a.m:** Dr. Phil Green, Department of Genome Sciences, UW Analyzing genome sequences.
- **10.00 a.m:** Dr. Martin Tompa, Computer Science and Engineering Discovering Regulatory Motifs in DNA Sequences
- 11.00 a.m: BREAK
- **11.20 a.m:** Dr. Charles Kooperberg Bioinformatics Group of the FHCRC Sequence analysis using logic regression
- **12.20 p.m:** LUNCH
- Session IV: Chair; Pauline Ng (Molecular and Cell Biology, UW)
- **1.30 p.m:** Dr. Stephanie Monks, Department of Biostatistics, and Rosetta Inpharmatics Studying the Genetics of Gene Expression
- **2.30 p.m:** Dr. Jenny Bryan, Department of Statistics, UBC Finding Informative Subsets of Genes
- **3.30 p.m:** BREAK
- **4.00 p.m.:** Dr. Joe Felsenstein, Department of Genome Sciences, UW

  Trees of genes within and between species: molecular biology meets population biology
- 5.00 p.m.: END OF MONDAY Talks
- 5.15 p.m. 6.45 p.m.: CONFERENCE RECEPTION: HUB 200AB

#### Tuesday December 18:

Session V: Chair: Isabella Ghement (Statistics, UBC)

**9.00 a.m:** Dr. David Baker, Department of Biochemistry Protein structure prediction

10.00 a.m: Dr. Kathleen Kerr, Department of Biostatistics Gene Expression Microarrays: Classical Statistics and Modern Genomics

11.00 a.m: BREAK

11.20 a.m: Dr. Ellen Wijsman , Division of Medical Genetics Gene finding in human populations

**12.20 p.m:** LUNCH

1.20 p.m: What should we do differently next time?Final wrap-up discussion: Student Panel:Bryan Shepherd (Chair), Rob Igo, Rachel Mackay, Lixuan Qin.

2.30 p.m.: END OF WORKSHOP