BioSB course  RNA-seq data analysis (5th edition)

Date: 7-9 September, 2015
Location: Leiden, the Netherlands
Course coordinators: Peter-Bram ‘t Hoen (LUMC), Jan Oosting (LUMC), Celia van Gelder (BioSB)
Registration: Registration is not yet open. You can express your interest in the course by filling out the pre-registration form at http://biosb.nl/education/enrollment/pre-registration-courses/.
More information: education@biosb.nl

Course description
BioSB and LUMC organizing a 3-day course on RNA-seq. This is an expert course for people with experience in NGS and a follow-up course on the general NGS data analysis course (coordinator Jeroen Laros, LUMC). The course will consist of seminars and hands-on command line, Galaxy and R practicals and will focus on data preprocessing, quality control, alignment, visualization and statistics for differential transcript expression. Examples will be taken from human and mouse studies. The course does not cover prokaryotic RNA profiling nor plant- and metagenomics aspects.

Course topics
- RNA-seq experimental approaches
- Alignment and de novo assembly
- Statistics for differential gene expression
- eQTL analysis and allele specific expression
- Variant calling and RNA editing
- Small RNA profiling
- Single cell profiling
- Software for RNA-seq data analysis

Target audience
Participants for the RNA-seq course should preferably have participated in the general NGS course or otherwise have demonstrated hands-on experience with NGS data analysis. The course is aimed at PhD students and post-docs, but scientific programmers and data analysts with a background in biology and bioinformatics may also attend. Registrations will be handled on a first-come-first-served basis but experience and motivation will be reviewed. Seats have been reserved for participants in the FP7-funded project RD-Connect and Marie Curie European Training Network TranCYST.

BioSB Education Programme
This course is part of the Education Programme of BioSB, the Netherlands Bioinformatics and Systems Biology Research School, which offers training and education in bioinformatics and systems biology. More information about BioSB can be found at www.biosb.nl.