

GenomeLIMS: Affymetrix Expression module for GeneChip Expression Array Sample Submission and Tracking

John Innes Centre
Genome
LABORATORY



John Innes Centre

James Hadfield⁽¹⁾, Rob Davey, Jenn Conn
⁽¹⁾james.hadfield@bbsrc.ac.uk, John Innes Centre, Norwich, NR3 4DG, UK,

Download now from....<http://www.jicgenomelab.co.uk/microarrays/workflow/>

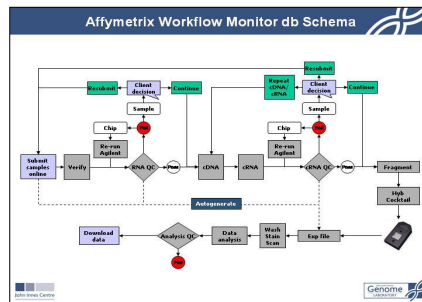
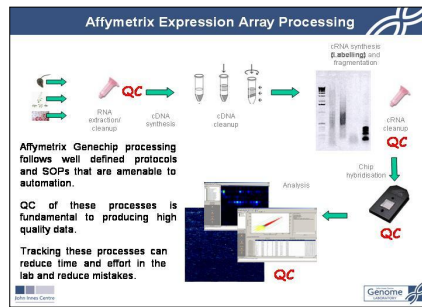
We present here an online system to handle Affymetrix sample submission and tracking, job management and lab processing. Many current microarray database solutions tend to focus on post sample-processing analysis. GenomeLIMS allows recording of all sample processing steps, there are no expression data analysis functions. **See our rptDB poster as well!**

Users:

- Submit and track samples for Affymetrix processing
- Upload MIAME data for inclusion into GCOS .EXP files
- Review QC data and download expression data

Technicians:

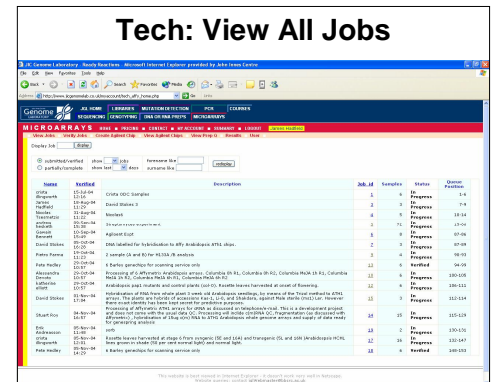
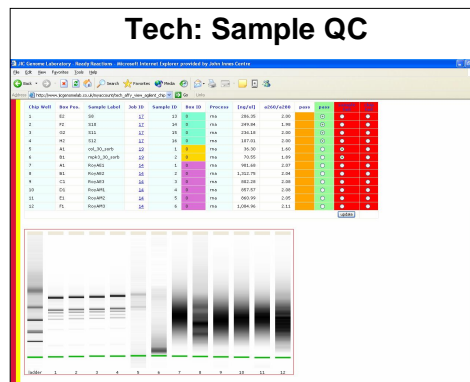
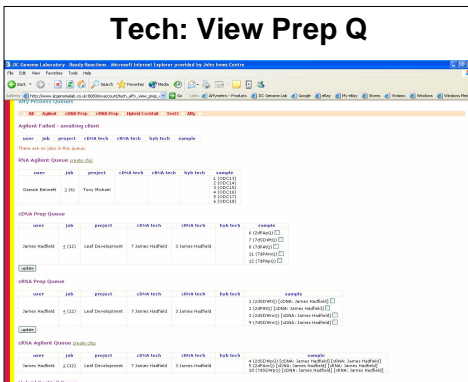
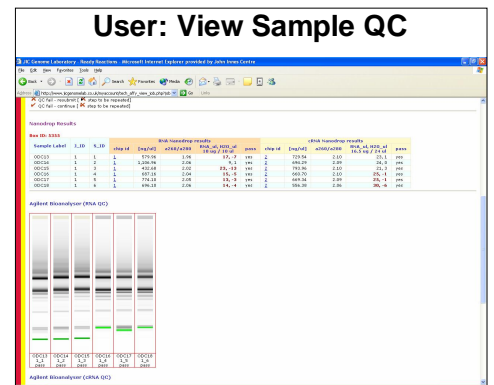
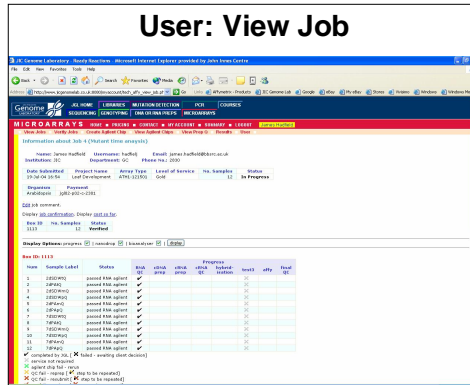
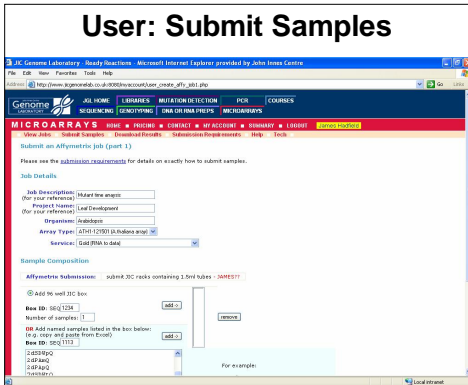
- Track all samples/jobs submitted
- Track which technician is doing each step
- Review lab workflow queue 'what have I got to do today?'
- Pass or fail samples from BioAnalyser (RNA, cRNA)
- Pass or fail samples from .RPT analysis
- Easily track repeated samples and QC data
- Integrate Agilent BioAnalyser and Nanodrop data
- Auto generate .EXP files for GCOS



Technical Staff: The GenomeLIMS is based on a MySQL database, the front end is PHP. The website and database run on a Linux machine running Apache2. PERL scripts automatically upload data via FTP from the Agilent BioAnalyser and Nanodrop. Affymetrix .rpt files are parsed to present the data to users in a more understandable form.

• To setup you will need someone with experience in:

- Linux, apache, MySQL, PHP, Perl, zip
- Perl: regular expressions, installing Perl modules via CPAN
- PHP: the whole website will make sense to an OO developer
- Strong HTML: Javascript/CsSS required to modify the look
- Affymetrix: basic understanding of the workflow process



The Genome Laboratory offers a complete Affymetrix Authorized Expression Array Processing service. This service includes RNA sample QC, cDNA and cRNA synthesis and QC, frag, hyb, scan and data QC. **Prices from £580 per sample/chip including GeneChip array!**



We are also developing a two-colour custom microarray service.

Please contact us on +44 (0)1603 450842 via enquiries@jicgenomelab.co.uk or visit our website at www.jicgenomelab.co.uk.