The VectorBase Newsletter
Issue 6 – April 2009

New data

• *Ixodes scapularis* gene set released

The *Ixodes scapularis* gene set, IscaW1.1, is available through VectorBase and GenBank. It can be downloaded and browsed from the Ixodes genomic data page. At GenBank, the genes are annotated as features on scaffold entries DS611849-DS981340.

• *Anopheles gambiae* population genomics

A population genomics database for *Anopheles gambiae* is now available at VectorBase. The recently completed Stage 1 release includes data for 5,870 individual *An. gambiae s.l.* collected from 54 sites in Mali and for 3,245 individuals from 51 sites in Cameroon. The data includes species identification (*An. gambiae* and *An. arabiensis*), molecular form (M vs. S), chromosomal form (Forest, Bamako, Mopti and Savanna), and karyotype data. A Google Maps API and Google Earth layer provide visualization of these data on maps

• Gene expression summary

We are now providing a text summary of gene expression data directly on GeneView pages. Look for the panel in the "Gene DAS Report" section for *An. gambiae* or *Aedes aegypti*.

• Linking gene expression reports to controlled vocabulary and ontology terms

Whilst browsing the controlled vocabularies you may find that you are shown links to relevant microarray experiments. There are also links from the gene expression pages to the controlled vocabulary browser. You can also search the gene expression resource with ontology IDs (e.g. TGMA:0001036).

• Insecticide resistance

The first data from Europe (Italy) and North America (USA) have been imported into the database. An additional set of more than 500 insecticide resistance assays from India, Thailand, Singapore, Malaysia, and Italy was imported (provided by Hilary Ranson and Joseph Burhani at University of Liverpool).

• Gene expression downloads

Tab-delimited text files of *Anopheles gambiae* gene expression data are available from the VectorBase download section. The files contain the p-values and text-based expression summaries for each gene. The data is the same as that shown in a gene expression report page where the data is averaged for multiple reporters it has been averaged (potentially obscuring errors and artifacts).

• *Aedes aegypti* detox expression data

An experiment profiling the response of *Ae. aegypti* detoxification genes to two pesticides and three insecticides has been included in the Gene Expression section.

Tools

- ### Microarray data submission

VectorBase is pleased to announce that a revised set of data submission guidelines is available for microarray-based gene expression data. The slightly modified file formats are now compatible with our new database and you may submit one or two-channel experiments. For more information, please follow the link on the main Expression Data page.

- ### Expression BioMart

Comprehensive query and download facilities for gene expression data are now available through the new Expression BioMart. Sophisticated queries based on gene function and gene expression can be constructed by linking the "normal" BioMart with the expression BioMart. The BioMart data is reporter-based, that is to say that it has not been averaged over genes. To access it go to the Get Data section at VectorBase, select BioMart, and then use the Choose Database menu to select VectorBase Expression Mart.

VectorBase top tip

You can build a your own Hidden Markov Model (HMMER) based on a multiple alignment of your sequences using the online tool and then search VB gene models for potential matches. You can find the HMMER tool in the Tools section at VectorBase.

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