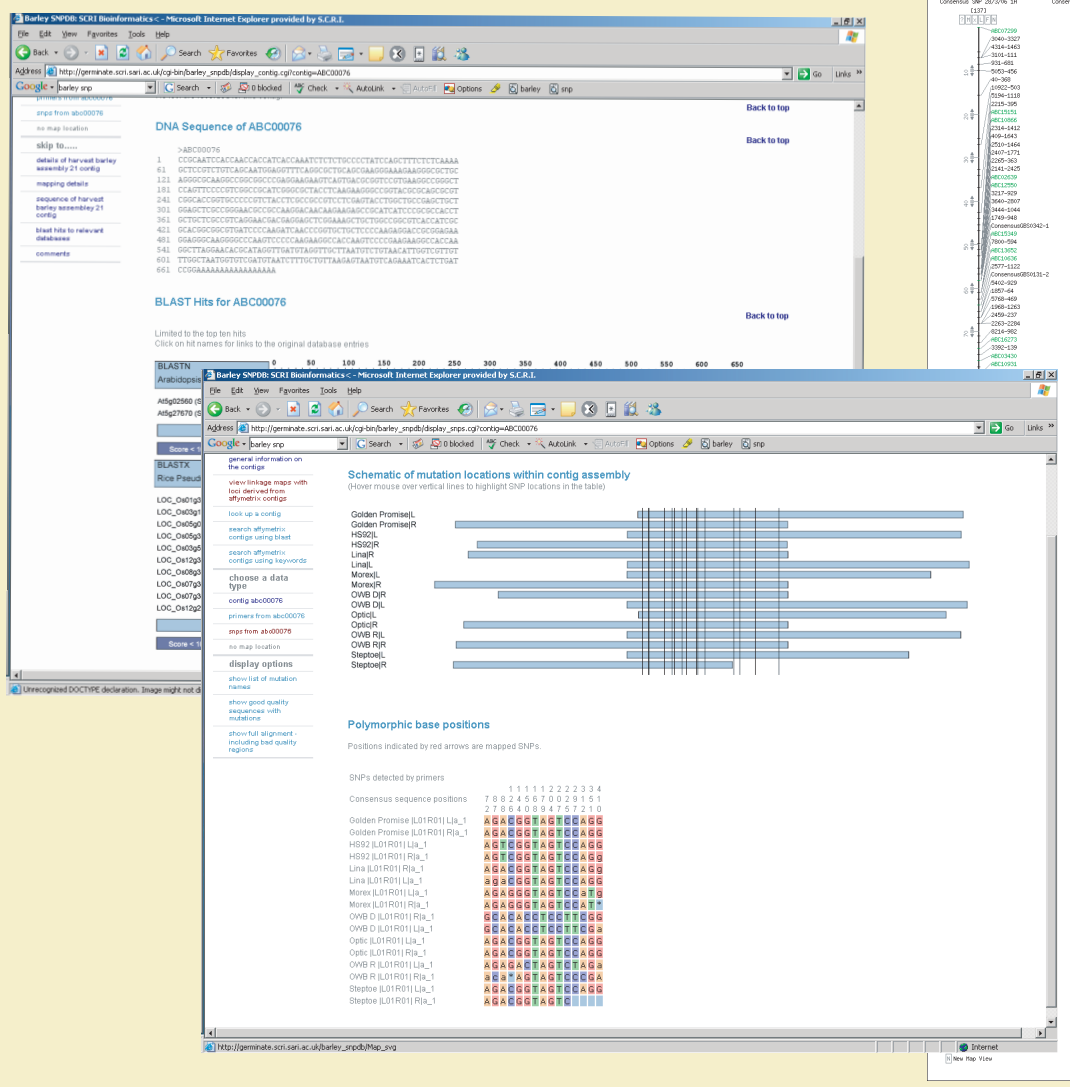
Barley SNP Databases and GVT

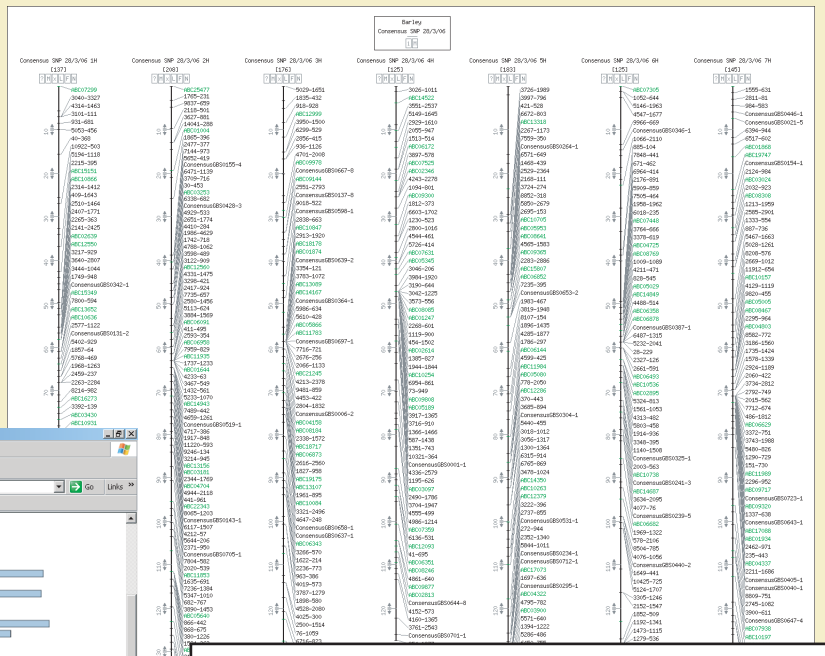
David Marshall, Linda Milne, Paul Shaw, Daniel Nwankwo, Micha Bayer, *Andy Flavell, Robbie Waugh

Scottish Crop Research Institute, Invergowrie, Dundee, DD2 5DA, Scotland, UK

SCRI Barley SNP Database

http://bioinf.scri.sari.ac.uk/barley_snpdb/

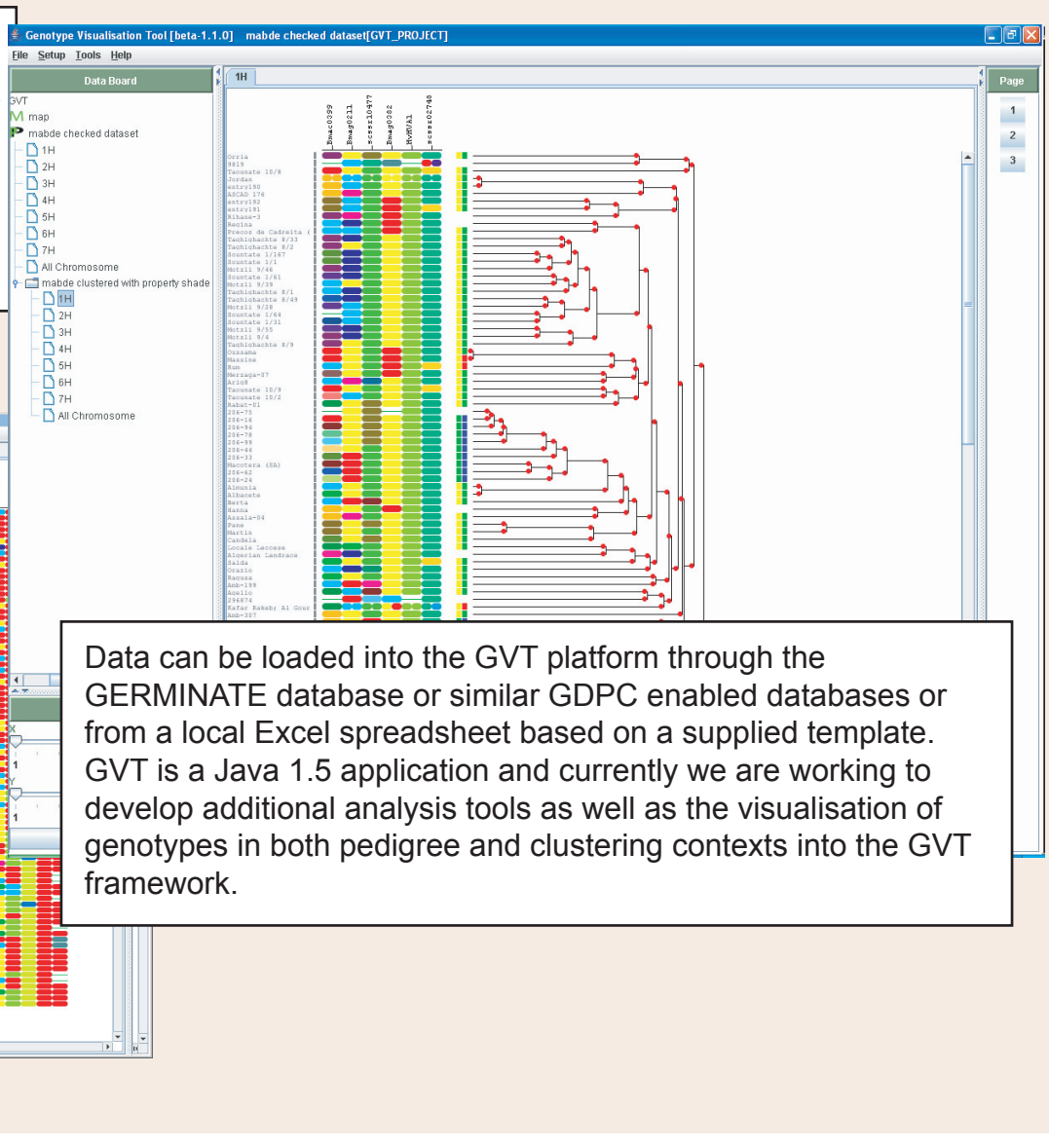




The Barley SNP database supports the SNP development component of a high throughput SNP genotyping project in Barley. It currently contains background data on SNP assays and resequencing and links this informtion with Barley EST assemblies, map information, comparative information from the rice genome and expression data from the Barley1 Affymetrix GeneChip. The actual genotype information will be stored in the Germinate data. Currently we are exploring a variety of modes of data transfer between the databases and a range of analytical and visualisation tools such as GVT (below) and TASSEL. Currently we are investigating webservice methodologies.

The Genotype Visualisation Tool (GVT)

The Genotype Visualisation Tool (GVT is a Java application designed for the visualisation and analysis of plant genotype data in the form of graphical genotypes. It has been designed to support a range of genotyping technologies, including SSRs, SNPS, AFLPs and RBIPS. We anticipate that it should be extendable to other technolgies.



Data can be loaded into the GVT platform through the GERMINATE database or similar GDPC enabled databases or from a local Excel spreadsheet based on a supplied template. GVT is a Java 1.5 application and currently we are working to develop additional analysis tools as well as the visualisation of genotypes in both pedigree and clustering contexts into the GVT framework.