Human ENSEMBL chip :

Based on the ENSEMBL gene catalog, we have done a first selection of cDNA clones representing annotated ENSEMBL protein-coding genes taken from build version v.3 and v. 13. As far as possible, clones were chosen to cover at least part of the 3' UTR of the corresponding genes (allowing hybridization of the chip with oligodT-labelled cDNA probes). The general procedure was to BLAST the ENSEMBL gene collection against the Unigene collection that were already re-sequenced by the RZPD. The first generation chipV1 contains 15,172 cDNA clones. The complete list is available from the RZPD web site. Clones selected for the chip were mapped to the ENSEMBL, RefSeq and Gene_ Nest transcripts, respectively. We have now set up a database holding all this information with a graphical display.This is a user-friendly database allowing to search by clone ID, gene ID, gene name..etc, with access to the corresponding sequence. Gene description and functional annotation (eg. GO annoatation) are also available for all clones, such as a direct link with the GenomeMatrix. The V1 chip has been already used for a number of experiments and is available. Access to the database is possible upon request for login and password.

Since the aim is to keep an updated chip, we have now performed a second clone selection, based on a more recent version of ENSEMBL, namely v. 18. The new selection led to a design of a second generation chip V2, that should contain 24,832 cDNA clones, and represent a large fraction of the ENSEMBL genes (21,724). Close to 4,000 genes from this new collection need re-sequencing. A cooperation between MPIMG and RZPD plans to make this chip available at the end of the summer (including re-sequencing). As described above for chipV1, all information are available through the database.

Mouse ENSEMBL chip :

A first collection of 10,258 mouse cDNA clones were pre-selected among the set of re-sequenced UNIGE and Lion mouse clones by RZPD. We are now in the process of re-selecting a bigger set (approx. 23,000 clones) based on the most recent mouse ENSEMBL build, and incorporatingalso information from the NIA clone collections. As a cooperation with RZPD, we expect having the clone collection available by October 2004 (including re-sequencing). Annotation and query facilites will be available through the same database as the one developped for the ENSEMBL human set.

Orthology between the human and mouse ENSEMBL clones lists are also provided.

Version	Tracking of changes	Name	Date