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Chromosome Committee Reports for the Mouse Genome

Janan T. Eppig[1] and Lee M. Silver[2]

[1]The Jackson Laboratory, Bar Harbor, ME, USA (email: jte@informatics.jax.org)
[2]Princeton University, Princeton, NJ, USA (email: lsilver@molbiol.princeton.edu)

The mouse Chromosome Committee Reports represent a collaborative effort between the 21 Mouse Chromosome Committees and the Mouse Genome Database (MGD) staff. The report contents are the result of extensive research, evaluation, and analysis of data by experts on particular chromosomal regions of the mouse genome. These data are collated and synthesized by individual researchers committed to providing the scientific community with a current consensus summary of the organization of their chromosome of interest. The MGD staff has written software tools to support the electronic submission, data checking, conflict resolution, map generation, and public display tools for the Committee Reports.

Printed Chromosome Committee Reports

This Special Issue of *Mammalian Genome* contains the published version of the 21 mouse Chromosome Committee Reports, each presenting the status of genetic knowledge for one of the 19 autosomes, or the X or Y Chromosomes of the mouse genome. Each of the published reports contains a master table depicting the genetic map and corresponding detailed summary information about each locus in a tabular format. The density of genetic markers dictates a multi-page presentation of these data and a graphical map display of the whole chromosome, on the left, orients the user as to the viewing window on that page. To the right of the chromosome figure is a line of information for each locus with centimorgan position, identification symbol, confidence of localization, name, mapping methods, whether there are associated phenotypic alleles, cytogenetic placement, human homologies, and references (by MGD reference accession number). This master table is derived from the Chromosome Committee files submitted electronically to MGD. Programs written by the MGD staff process these files and create the master table. An additional feature of the Committee Reports is an optional narrative describing the state and notable new discoveries about a particular chromosome. Seventeen of the 21 Chromosome Committee Reports include an optional narrative.

Two additional sections of the Special Issue are generated electronically by MGD. One is a numerically ordered citation list that cross-references the MGD reference accession numbers used in each Chromosome Committee Report's master table. Each printed Committee Report includes up to four references per locus designated by MGD accession number; the citation list provides a composite list of accession numbers with the corresponding abbreviated human-readable citation. Full bibliographic citations and abstracts are available through MGD on the World Wide Web (WWW). The second MGD generated section of the Special Issue contains a list of all characterized mouse loci appearing in the Chromosome Committee Reports, listed by symbol in alphabetical order, together with their corresponding chromosome number and centimorgan position. This locus list also contains all withdrawn symbols with pointers to the current correct symbol.

Electronic Chromosome Committee Reports

For the first time, all Chromosome Committees coordinated the development of their reports electronically with the Mouse Genome Database staff at The Jackson Laboratory. The result of this coordination can be seen in the new, consistent format that is used to present the genetic map and corresponding information for each chromosome within the context of a single master table described above. Each Chromosome Committee submitted electronic files to MGD, many utilizing the newly developed submission and editorial interface developed for the Committee Chairs. Once submitted, each file was processed for nomenclature errors and format consistency and programs were run to produce the formatted WWW documents now available to the scientific community. Before public-release, each of the processed reports were reviewed (and edited as needed) by the Committee Chairs.

The electronic versions of the Chromosome Committee Reports are expanded versions of the printed reports. Each of the report sections described above (master table/Postscript Map and narrative for each Report, plus the composite citation list and locus list) is available from MGD via the WWW. In addition, the table used to create the master table and optional supplemental tables, figures and text submitted by the Chromosome Committees, and additional references for each locus are available only through MGD. Many sections of the Reports are available both for viewing using a WWW browser and for downloading in other formats (*e.g.*, many of the tables can be downloaded as tab-delimited text; many of the narratives can be downloaded in text or Microsoft Word formats).

The URL address for MGD is: **www.informatics.jax.org**

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World Wide Web Companion Resources to the 1997 Chromosome Committee Report

Information resources referenced in these Chromosome Committee Reports

Resource	What is available	WWW address
Mouse Genome Database (MGD) The Jackson Laboratory Bar Harbor, ME, USA	Genetic and comparative maps; experimental mapping data; genetic markers/mutants/cytogenetic data; molecular reagent characterization; polymorphisms/alleles for strains; phenotypic descriptions of genes; inbred strain characteristics; references. Access to full versions of annual Chromosome Committee Reports	http://www.informatics.jax.org mirror sites U.K.–http://mgd.hgmp.mrc.ac.uk France–http://www.pasteur.fr/Bio/MGD Japan–http://mgd.niai.affrc.go.jp
Whitehead Inst for Biomed Res MIT Center for Genome Research Cambridge, MA, USA	Genetic maps of mouse using the MIT SSLP markers; physical maps of mouse using MIT YAC libraries and the MIT SSLP markers	http://www-genome.wl.mit.edu
Portable Dictionary of the Mouse University of Tennessee Memphis, TN, USA	Genetic data compiled from other database sources for downloading. Various formats available	http://mickey.utmem.edu/front.html
MRC Mammalian Genetics Unit Harwell, UK	Comparative map of human and mouse X chromosome	http://www.mgu.har.mrc.ac.uk
Roswell Park Cancer Institute Buffalo, NY, USA	Map Manager linkage analysis software and recombinant inbred strain distribution patterns	http://mcbio.med.buffalo.edu/mapmgr.html
Human Genome Database (GDB) The Johns Hopkins University Baltimore, MD, USA	Human genomic mapping data	http://gdbwww.gdb.org
Research Genetics Huntsville, AL, USA	Mapping reagents, primer pairs, DNA libraries, radiation hyrid panels, peptides and antibodies, etc	http://www.resgen.com

Major linkage mapping panels for mouse with data available on the WWW

Originator	Cross	WWW address
Whitehead Institute (MIT)	(C57BL/6J-*Lep*^{ob}/*Lep*^{ob} × CAST)F2	http://www.genome.wi.mit.edu/genome_data/mouse/mouse_index.html
Frederick (NCI)	(C57BL/6J × *M. spretus*) × C57BL/6J	http://www.informatics.jax.org/crossdata.html
Jackson Laboratory DNA Panels (JAX)	(C57BL/6J × *M. spretus*) × C57BL/6J AND (C57BL/6J × SPRET/EI) × SPRET/EI	http://www.jax.org/resources/documents/cmdata/
European Collaborative Interspecific Backcross (EUCIB)	(C57BL/6J × SPR or SEG/Pas) × C57BL/6J AND (C57BL/6J × SPR or SEG/Pas) × SPR or SEG/Pas	http://www.hgmp.mrc.ac.uk/MBx/MBxHomepage.html
Kozak	(NFS/N × *M. spretus*) F1 × C58/J AND (NFS/N × *M. spretus*) F1 × *M. spretus* AND (NFS/N or C58/J × *M. m. musculus*)F1 × *M. m. musculus*	http://www.informatics.jax.org/crossdata.html
Reeves	Chr 16 Sex-averaged intersubspecific mapping panel	http://physiology.med.jhu.edu/roger/roger.html
Seldin	(C3H/HeJ-*Fas*/^{gid} × *M. spretus*) × C3H/HeJ-*Fax*/^{gid}	http://www.informatics.jax.org/crossdata.html