LINKAGE COURSES

In 1995, the following linkage courses will be held:

February 27 - March 3:   Introductory course at the University of Zurich (Switzerland), Irchel Campus Computer Center.   This course is full.
June 12-16:   Introductory course at Columbia University, New York (maximum of 30 participants).   We often receive many more applications than we can accept and will carry this course twice in case of high demand (date not yet set).
October 2-6:   Advanced course at the University of Zurich (Switzerland), Irchel Campus Computer Center.
The next Advanced course at Columbia University will be held early in January 1996.

To obtain information on these courses, please write to Katherine Montague, course coordinator, by e-mail or fax.   The textbook to be used for theoretical background and course exercises is Terwilliger JD & Ott J: *Handbook of Human Genetic Linkage*, Johns Hopkins University Press, 1994 (additional material for advanced courses will be handed out at the course).   Course participants are expected to bring this book with them to the course;   in case of problems please contact Katherine Montague.

UPGRADING OUR ftp SITE

Our anonymous ftp site (york.cpmc.columbia.edu) runs on an old Vaxstation 3100 with ftp software that is not well adapted to the system.   Unfortunately, the Vaxstation occasionally freezes up and must be rebooted -- there is evidently little that can be done about this.   So, if you experience problems accessing the ftp site, please try again later.   Also, accessing it at night or in the morning tends to be more successful than at peak hours.

A new member of our team, Dr. Wentian Li, started installing a new anonymous ftp site on our Sparcstation IPC.   It is expected to be much more stable then the current one.   Furthermore, it runs under Unix rather than under VMS as on the Vaxstation.   As soon as a larger hard disk is installed, we will transfer all files from the Vaxstation to the Sparcstation.   When ready, the anonymous ftp site can be reached as **linkage.cpmc.columbia.edu** and the old site (york.cpmc.columbia.edu) will be taken out of service.   The new ftp site is expected to be up by mid-March.

SOFTWARE NEWS

ESPA program

We regularly receive requests for the ESPA program, which carries out affected sib pair analysis with estimation of unobserved parental marker genotypes.   This pro-gram is not available from us -- please address any requests to the developer of ESPA, Dr. Lodewijk Sandkuyil (sandkuyl@rullf2.LeidenUniv.nl), Voorstraat 27 a,
2611 JK   Delft, The Netherlands. Tel: 011,31-15-123 638   Fax: 011,31-15-143-925.

Bug in LINKAGE regarding loops

Dr. Alejandro Schaffer submitted the following report:

The purpose of this message is to report a dangerous bug in LINKAGE.   The bug is that if maxloop is set to a number strictly lower than the actual number of loops, then LINKAGE gives no warning.   In some cases it will give plausible but incorrect results.   In contrast, in FASTLINK if maxloop is set to a number strictly lower than the actual number of loops, the program gives a warning and exits with instructions on how to fix the problem, without computing anything.

Editor's note: Readers of the Newsletter (January 1992) have been made aware of this problem.   However, thus far no test had been implemented in LINKAGE to catch the situation that maxloop is smaller than the actual number of loops.   This test has now been implemented in the DOS version of LINKAGE (available on our ftp site) and will be implemented shortly in other LINKAGE versions.

Newer versions of FASTLINK

The following announcement was submitted by Dr. Alejandro Schaffer:

Since May 1993, we have been distributing faster versions of the genetic linkage analysis programs in LINKAGE 5.1.   Several users have dubbed the new code "FASTLINK".

Version 2.2 of FASTLINK is now ready and available.   The changes from version 2.1 (distributed in March 1994) include
1. Bug fixes to bugs introduced in FASTLINK and bugs inherited from LINKAGE
2. More dynamic memory allocation
3. More diagnostics to detect user errors politely
4. Crash-recovery is now possible for LINKMAP and MLINK, in addition to LODSCORE and ILINK
5. Lots of information about portability of FASTLINK to different operating systems is included
6. A document entitled "The Mystery of the Unknown" explaining how the preprocessor program UNKNOWN works among other goodies.   See the file README.updates, which comes with the distribution, for details.

Like FASTLINK 2.1, this version is being distributed from a computer at Rice University.   Here are the instructions for retrieving the code:

ftp softlib.cs.rice.edu

Login as anonymous and leave your full e-mail address as password.

cd pub/fastlink

In that directory you will find various files.   You can get everything at once by retrieving the file:

fastlink.tar.Z

and then (outside of ftp) doing the commands:

uncompress fastlink.tar.Z
tar xvf fastlink.tar

If you prefer to get your files piecemeal, instead of getting fastlink.tar.Z, start by getting README* The file README (with no extension) will give you a roadmap to all the documentation.   I am maintaining a mailing list of FASTLINK users.   If you have retrieved the code and would like to be on the mailing list, send me e-mail at the address below.

Special thanks to many FASTLINK users including: Lucien Bachner, Alan Cox, David Featherstone, Sandep Gupta, Victoria Haghighi, Carol Haynes, Jerry Halpern, Kimmo Kallio, Luc Krols, Shriram Krishnamurthi, Tara Cox Matise, Ken Morgan, Jurg Ott, Steve Roberts, Joe Terwilliger, Gerard Tromp, Ellen Wijsman, Xiaoli Xie, who provided bug reports, suggestions for improvements, guidance on documentation, and assistance with portability.   I could not have prepared FASTLINK 2.2 without your help!

We are also distributing executable versions of FASTLINK for DOS.   The ftp instructions are similar.   Instead of doing
cd pub/fastlink

do
    cd pub/fastlink/dos
    binary

In that directory you will find 13 files.   One is an executable for UNKNOWN (called unknown.exe).   We have
        3 versions each of LODSCORE, ILINK, LINKMAP, and MLINK with the constant maxhap set to 48, 96,
        250 respectively.   For example, the file li96.exe is LINKMAP with maxhap set to 96 and the file
        il250.exe is ILINK with maxhap set to 250.   maxhap is the maximum product allowed for the number
        of alleles at each locus.   For example, if you want to a 3-locus analysis with 2x4x8=64 alleles, you
        should not use the versions with maxhap set to 48, but you can use either the 96 or 250 versions.

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Compiling with the 'colig.bat' batch program

Dr. Joseph Terwilliger made me aware of a problem with the 'colig' batch program that
we distribute to facilitate recompiling the LINKAGE programs for DOS (Turbo/Borland
Pascal):

I have a question for you about the turbo pascal colig.bat file.   Why does it have the line del *.tp* at the end?
        This seems to delete turbo.tpl, which is needed to compile the programs here on the PC's in Finland.
        Is it okay to change that line to DEL *.TPU instead of TP*, to preserve the *.TPL files?

    Response: When the LINKAGE programs are compiled with Turbo/Borland
Pascal, intermediate files are created and are left on the hard disk.   These files are
named *.tpx, where x=U for regular Turbo Pascal, x=P when compiled for protected
mode, and x=W when compiled to run under Windows.   The statement 'del *.tp*'
deletes any of these files that might have been created.   This procedure was chosen
under the assumption that the compiler would reside in a different directory.   If it
resides in the same directory as the programs to be compiled, one of the compiler files,
'turbo.tpl', will also be deleted.   Thus, the 'colig.bat' and 'colit.bat' batch programs have
now been restructured so that 'turbo.tpl' will no longer be deleted.

Meeting Announcement

The following announcement has been submitted to the Newletter by the meeting organizers:

Fourth Annual meeting of the INTERNATIONAL GENETIC EPIDEMIOLOGY SOCIETY, June 20-22, 1995 - Snowbird, Utah.   The meeting will be held in the Cliff Lodge (just 29 miles from Salt Lake City International Airport) in conjunction with the Society of Epidemiological Research.   Abstracts for consideration of oral presentations and posters are due February 10, 1995.   For abstract forms, contact Michele Brown, University of Utah, (801) 581-558099 or fax (801) 581-3165.   For program information contact Melissa Austin, University of Washington, Seattle, (206) 685-9384, fax (206) 685-3407.