

STR Information on the Internet

By Kimberly A. Huston
e-mail genetics@promega.com

With the advent of the Internet, many useful sites are available at the touch of a button. This medium contains a wealth of information that may be updated regularly, so that accurate, current data may be accessed at any point in time. In this article, I will highlight some Internet sites that may be of interest to the DNA typing community.

Q: What is on the Promega Internet site?

A: The Promega Internet site is a helpful tool that may be used to access various resources that provide valuable information to those involved in DNA typing. The address for the Promega Home Page is www.promega.com (Figure 1). From this page, many different areas of the web site may be accessed. The Genetic Identity page

can be reached from a link on the Promega Home Page, or directly at the following address: www.promega.com/geneticidentity/. On the Genetic Identity page are listings of new products; Meetings, Tradeshows and Workshops; Customized *GenePrint*[™] System Protocols; current and past issues of *Profiles in DNA*; *GenePrint*[™] Product Information; Symposia Proceedings; and contact information.

To view the new product information, simply click on the hypertext link. This link will open a page containing product description and catalog information.

The Meetings, Tradeshows and Workshops section provides links to information on upcoming events in the DNA typing community. Currently, information on the Second European Symposium on Human Identification is available. This link contains

information on registration as well as a schedule and speaker update.

Customized *GenePrint*[™] System Protocols also may be accessed from the Genetic Identity page. Customized *GenePrint*[™] Protocols are designed for each user's specific needs, based on their choice of *GenePrint*[™] System and detection method. See page 14 of this issue for further information on the Customized Protocols. These protocols may also be accessed via the Technical Resource Center button, found at the top of each screen.

Issues of *Profiles in DNA* are accessed easily through the link on the Genetic Identity page or directly from www.promega.com/profiles/. On the *Profiles in DNA* page, any article from a past issue may be retrieved. A subscription to the postal mailing of *Profiles in DNA* may also be requested at this site.

Product descriptions for all of the *GenePrint*[™] DNA typing products are available by selecting *GenePrint*[™] Product Information. To send an e-mail message directly to the Genetic Identity team, select the "Talk to Genetic Identity" link on the Genetic Identity page.

The Technical Resource Center of the Promega Internet Site contains a number of valuable links to Promega publications, technical literature and product bibliographies, as well as general technical information. The address for this page is www.promega.com/techserv/. All of the *GenePrint*[™] Customized Protocols, *Profiles in DNA* issues and Technical Manuals are accessible from this site as well as from the Genetic Identity site. In addition, a list of interesting Internet sites can be found under the BioLink hypertext in the upper right hand portion of the page. The address for the BioLink page is www.promega.com/biolink/.



Figure 1. The Promega Home Page.

The BioLink Resources for the Life Scientist are comprised of seven areas. These are Life Science Databases, Suppliers of Reagents and Equipment, Molecular Biology Servers, Information Resources, Organism-Specific Information, Societies, Institutions, and Government Agencies, and Journals. The Life Science Databases section contains several links including those to the GenBank® sequence database under the NCBI site, and the MEDLINE® database under the Entrez™ Site.

Q: Are there any sites that will tell me the chromosomal location of short tandem repeat (STR) regions?

A: There are many useful sites for determining chromosomal location of STR regions. The first is the Cooperative Human Linkage Center (CHLC), located at www.chlc.org and linked from the BioLink Resources page of the Promega site. This site is a useful source for genetic maps of PCR-formatted microsatellite markers. Genetic maps of each chromosome are listed with the positions of these markers. Searching for information about specific microsatellite markers using the CHLC Marker Maps prompt is quite easy. Information retrieved on specific markers includes other names that have been used for that marker, and the chromosomal location in recombination fractions and Kosambi centimorgans (cM).

STRBase, a web site sponsored by the National Institute of Standards and Technology (NIST), also contains a list of chromosomal locations for STR loci. The address for this site is ibm4.carb.nist.gov:8800/dna/home.htm (see next question).

All of the above sites give GenBank® accession numbers, which allow GenBank® records to be retrieved from the Internet. The address for the GenBank® site is www2.ncbi.nlm.nih.gov/cgi-bin/genbank.

Q: Are there any web sites that are specifically devoted to Short Tandem Repeats (STRs)?

A: STRBase is a very useful database that contains sequence information on commonly used STR systems, population data, PCR primers and conditions and a technology review for STR analysis. This site can be accessed at ibm4.carb.nist.gov:8800/dna/home.htm or from Promega's BioLink page. This site also contains background information on STR loci and a list of references supporting each locus. More information on this site can be found in reference 1.

Q: Are there any journals that have sites on the Internet?

A: Many journals have Internet sites. The *American Journal of Human Genetics* site, which can be found at www.faseb.org/genetics/ashg/jou-ashg.htm, contains recent full text issues that are searchable. *BioTechniques* is available at www.biotechniques.com. Although this site does not contain a current issue to peruse, articles may be found using a keyword search. The Internet site for the *Proceedings of the National Academy of Sciences* allows access to full text articles for current subscribers. The address for that site is www.pnas.org. Abstracts and Tables of Contents are available for *Human Molecular Genetics* and *Nucleic Acids Research*. Full text articles for these journals are offered only to those individuals who have a current subscription to the journal. The address for *Human Molecular Genetics* is www.oup.co.uk/hmg/, and the address for *Nucleic Acids Research* is www.oup.co.uk/nar/. *Nature Genetics*, located at www.genetics.nature.com, only contains abstracts for current articles.

Q: What are the web addresses of some other organizations that are involved with DNA typing?

A: The Internet addresses for the American Academy of Forensic Sciences and the American Association of Blood Banking are www.aafs.org and www.aabb.org, respectively. The European DNA Profiling Group (EDNAP) has an Internet site at www.uni-mainz.de/FB/Medizin/Rechtsmedizin/ednap/ednap.htm. The Federal Bureau of Investigation site can be found at www.fbi.gov, and the Forensic Science Service Internet site is www.fss.org.uk. The Internet address of the Perkin-Elmer Genetic Analysis site is www2.perkin-elmer.com/ga/index.htm.

Q: What other general resource sites are available?

A: Carpenter's Forensic Science Resources site, located at www.tncrimlaw.com/forensic/, is an interesting source of information on forensic science-related issues. Under Forensic DNA Analysis, a basic discussion of DNA is listed, along with links to forensic and general DNA-related sites.

A vast amount of information is available on the Internet; this is only a sample listing of the Internet sites that may be useful to the DNA typing community. The Internet is readily accessible and is a valuable tool for staying informed of current developments in and related to the field of forensic DNA typing.

REFERENCE

1. Butler, J.M. and Reeder, D.J. (1997) STRBase: a short tandem repeat DNA database. *Profiles in DNA* 1(2), 8.

GenePrint is a trademark of Promega Corporation.

Entrez is a trademark of and MEDLINE is a registered trademark of the National Library of Medicine. GenBank is a registered trademark of the U.S. Department of Health and Human Services.