Promega's *GenePrint*™ PowerPlex™ System Receives "Top 100 Innovative Products" Award from *R&D Magazine*

Promega has received a 1998 "Top 100 Innovative Products" Award for the *GenePrint*™ PowerPlex™ 1.1 System for DNA typing. Presented annually for the past 36 years, this award from *R&D Magazine* recognizes new products judged to be among the most technologically significant of the year. Entries are submitted for products in a wide range of research and technology categories. Each entry is judged by a team of experts for its degree of innovation and technological importance. Winning entries have included taxol, the Nicoderm® patch and the Kodak® Photo CD.

In January 1997 the introduction of the *GenePrint*™ PowerPlex™ 1.1 System ushered in a new era in human DNA typing. It provided the ability to analyze minute quantities of DNA (1ng) at eight separate and distinct STR* (Short Tandem Repeat) loci, allowing rapid, non-radioactive characterization of human DNA samples. The *GenePrint*™ PowerPlex™ 1.1 System incorporates advances from the Human Genome project, combining several polymorphic tetranucleotide repeats into an easy to use and easy to interpret PCR-based analysis. The use of fluorescent primers displaying different colors in combination with the Hitachi FMBIO® II Fluorescent Scanner provides high throughput analysis of multiple specimens at multiple loci.

The two key applications of this work—forensic casework and DNA database development—demand different capabilities. For forensic casework, very small amounts of material, which can include degraded human DNA, are analyzed. The ability to decipher mixed DNA samples is critical, especially in analysis of rape cases. On the other end of the scale, many nations (e.g., the United Kingdom, the Netherlands, Austria and the United States) have implemented the creation and use of national databases for storing DNA profiles of people convicted of various crimes, especially violent ones, for use in crime scene analysis. This application requires robust procedures and high throughput capabilities as millions of samples are profiled. The *GenePrint*™ PowerPlex™ 1.1 System meets all of these criteria.

A key feature of using the *GenePrint*™ PowerPlex™ 1.1 System is the ability to discriminate different sources of DNA. A measure of this characteristic is called "matching probability." The matching probability for the *GenePrint*™ PowerPlex™ 1.1 System exceeds 1 in 100,000,000 meaning that a typical profile would appear only two to three times in the U.S. population. For this and other reasons, the *GenePrint*™ PowerPlex™ Systems have been accepted as standards for generating information for inclusion in CODIS, the U.S. national convicted offender database system.

The *GenePrint*™ PowerPlex™ family of Genetic Identity Systems was developed by a team under the direction of Dr. James W. Schumm, Director, Research and Development, DNA Typing. The "Top 100 Innovative Products Awards" are to be presented at a banquet in Chicago on September 24, at the Museum of Science and Industry. Randy Nagy, Business Manager, Genetic Identity, and Kathy Micka, Research Scientist, will be accepting the award on behalf of Promega Corporation.

*See patent statement on page 2.

The *GenePrint*™ PowerPlex™ 1.1 System development team. (L-R) Jennifer Taylor, Jeff Bacher, Keith Jolliff, Cindy Sprecher, Randy Nagy, Dawn Rabbach, Ann Lins, Kathy Micka and Jim Schumm.