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[American Society for Microbiology](#)

Derek R. Lovley receives 2004 Proctor & Gamble Award from American Society for Microbiology

WASHINGTON, DC--APRIL 23, 2004--Derek R. Lovley, Ph.D., Distinguished University Professor and Department Head, Department of Microbiology, University of Massachusetts, Amherst, has won the Proctor & Gamble Award in Applied and Environmental Microbiology from the American Society for Microbiology (ASM). Supported by The Procter & Gamble Company, this prestigious award honors Lovley for an array of important findings that have helped scientists understand how certain microorganisms survive under the harshest living conditions, research that is also suggesting new ways to clean up polluted environments. At the ASM General Meeting, he will deliver the Proctor & Gamble Award Lecture, "GEO-omics: Merging Systems Biology and Environmental Genomics with Geochemistry To Model the Activity of Geobacteria."

Lovley is perhaps best known for his research showing how certain anaerobes (microorganisms that do not use oxygen) instead make use of Fe(III), a compound of iron, to make energy and grow. He isolated the first known microbial species capable of using iron in its metabolism, now known as *Geobacter metallireducens*, in the Potomac River near Washington, DC. Lovley subsequently discovered that *Geobacter* species can be found in many other kinds of sedimentary and soil environments and that other microorganisms besides *Geobacter* are capable of using Fe(III) under ordinary and extreme growth conditions.

One of the most exciting aspects of Lovley's innovative work lies in its applications in bioremediation, which is the use of microbes or other organisms to remove hazardous substances from an environment. In addition to iron, some anaerobic bacteria can use other metals, including gold and uranium, in their metabolism. Harnessing the ability of these microbes to reduce these substances to less-harmful forms may be key to removing uranium, petroleum, and other contaminants from groundwater. Further research on the anaerobic degradation of toluene, benzene, and other polycyclic aromatic hydrocarbons has suggested potential applications for treating soils contaminated with these compounds, as well.

After earning his B.A. from the University of Connecticut and M.A. from Clark University, both in biological sciences, Lovley received a Ph.D. in microbiology from Michigan State University. A Fellow of the American Academy of Microbiology, Lovley has garnered many research and academic awards. In 1990, he was named Mendenhall Lecturer of the U.S. Geological Survey, the Survey's highest scientific honor. In 1992, he was the Grand Winner of Popular Science's annual "Best of What's New in Environmental Technology."

The Proctor & Gamble Award in Applied and Environmental Microbiology will be presented at

the 104th General Meeting of the American Society for Microbiology (ASM), May 23–27, 2004, in New Orleans, Louisiana. ASM is the largest single life science society, composed of over 42,000 scientists, teachers, physicians, and health professionals. Its mission is to promote research and training in the microbiological sciences and to assist communication between scientists, policymakers, and the public to improve health, economic well-being, and the environment.

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