GLOSSARY

Pathogen: Any virus, bacterium, or other agent that causes disease.

Fermentation: An energy-yielding process in which an energy substrate is oxidized without an exogenous electron acceptor. Usually organic molecules serve as both electron donors and acceptors.

Disease: A deviation or interruption of the normal structure or function of any part of the body that is manifested by a characteristic set of symptoms and signs.

Primary metabolites: Microbial metabolites produced during the growth phase of an organism.

Spore: A differentiated, specialized form that can be used for dissemination, for survival of adverse conditions because of its heat and dessication resistance, and/or for reproduction. Spores are usually unicellular and may develop into vegetative organisms or gametes. They may be produced asexually or sexually and are of many types.

Toxin: A microbial product or component that can injure another cell or organism at low concentrations. Often the term refers to a poisonous protein, but toxins may be lipids and other substances.

Bioluminescence: The production of light by living cells, often through the oxidation of molecules by the enzyme luciferase.

Biosensor: The coupling of a biological process with production of an electrical signal or light to detect the presence of particular substances.

Microarray technology: Profiling of gene expression by measuring binding of RNA from growing cells to an array of function-specific oligonucleotides attached to an inert surface.

Nucleic acid hybridization: The process of forming a hybrid double-stranded DNA molecule using a heated mixture of single-stranded DNAs from two different sources; if the sequences are fairly complementary, stable hybrids will form.