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**Book review**

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**Omenn, G.S.; Hollaender, A. (eds.): Genetic Control of Environmental Pollutants. Basic Life Sciences, Vol. 28.** New York, London: Plenum Press 1984. x+408 pp., several figs. and tabs. Hard bound \$ 55.-.

These conference proceedings represent the first to be devoted to the many facets of genetic engineering and its applications for control of environmental pollutants. The purpose of this conference was to identify and assess strategies for more effectively and safely managing wastes and toxic substances in the environment through the use of genetically engineered organisms.

The conference included a rich mix of molecular geneticists, microbial ecologists, applied microbiologists, industrial engineers, environmental health specialists, economists, and managers from academia, industry and government. The format allowed for synergistic movement toward a consensus about the kinds of environmental problems for which application of microbial organisms with special degradative capabilities might be most promising and appropriate. The panel discussion at the conclusion of each of 4 main sessions and the overall roundtable discussion are an excellent summary of the problems and opportunities that might arise in going from laboratory schemes and small-scale experiments to field trials and industrial and environmental applications.

The straight forward discussion of the many potential pitfalls of taking a genetically engineered organism into practical field applications should be of value to decision makers throughout government, industry and academia. Can the organism itself be a new and worse problem, will the public accept this technology, and will the organism survive,

compete and successfully complete the job it was designed for, are all questions thoroughly discussed in this book.

The bewildering array of potential hazards to our health and environment, introduced by modern technology, has caused a traumatic response in society. This has been accompanied by a sense of frustration that our prodigious basic research capabilities and our technological ingenuity have not yielded practical ways to control many pollutants and waste streams. This conference approaches the topics "environmental toxicants", "engineering organisms to survive", "environmental waste streams", and "diverse capabilities of microorganisms" with the notion that biological scientists and engineers really can join forces with both traditional and newly emerging techniques to make substantial progress in controlling environmental pollution and do so safely with thoughtful anticipation of potential consequences.

**Recommendation:** This authoritative multiauthored volume is recommended for decision makers in all phases of environmental pollution research. Its openness about glorious possibilities and dangerous pitfalls involved in genetically engineering microorganisms for use in pollution control should be a valuable guide to honestly critiquing individual programs worldwide.

It should be of equal value as a reference to scientists working in this area and a must for those considering redirecting their work to this area. It will go far, if read, to bridge the ignorance gap between field microbiologist-ecologist and genetic engineers.

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