

Foreword

The Seed Money research program at the Oak Ridge National Laboratory is now entering its twelfth year of accomplishment. Although modest in budget, its focus on new and innovative research appears to have had significant leverage on the changing course of the Laboratory's larger body of work. A review of its history and some of its more tangible results is instructive to all of us concerned with promoting increased public benefit from scientific research.

This report, stemming from an assessment of the Seed Money program performed by my Office of Program Analysis, is a brief and readable account of 12 successful scientific endeavors. While the subject areas of these stories are defined broadly, encompassing in some cases entire fields of research, all share a common link. The Seed Money program provided resources at a crucial juncture in the progress of research. Each accomplishment made a significant or even seminal contribution to the Laboratory's ongoing efforts in each field.

Although numerous program sponsors provided support for much of the underlying foundation of human resources, equipment and facilities, and also provided subsequent resources required to carry these projects to fruition, the Seed Money program provided an important element of creative flexibility. This flexibility both encouraged and enabled researchers to seize opportunities in a timely fashion and pursue them at will across disciplinary, programmatic, and organizational boundaries. The significance of the resulting accomplishments, when set in the proper context as these stories are, may be clearly appreciated by all.

In a larger sense, these stories also offer a unique perspective on the process of basic research and scientific innovation. They show that major advances can be as serendipitous as they are methodological. Successes are frequently born of initial disappointment. Certain investments in research,

seemingly well founded and insightful in retrospect, are highly tentative and risky in prospect. With the reading of these stories, one's awareness of uncertainty in research is heightened. So too, however, is one's confidence in the overall process confirmed.

Today, each of the Department's National Laboratories successfully operates a program of exploratory studies, modeled on many of the same principles of R&D management that formed the basis of the Oak Ridge Seed Money program in 1974. I am encouraged by the results of the Oak Ridge program and have every confidence that these principles, now more broadly applied, afford a continuing opportunity for creative and highly productive research.



Alvin W. Trivelpiece
Director, Office of Energy Research