

## MEDICINE



Americans are concerned about improving the quality and efficiency of health care in the United States. Innovations in medical technology can address this concern, revolutionizing many medical procedures and enhancing the quality of medical products and services. For example, newly developed laser techniques are being used to selectively kill viruses or cancers, replacing traditional radiation and chemical treatments that are toxic to the human body. Sophisticated technology will offer physicians better, more accurate diagnostic and surgical tools, potentially saving lives and improving patient care. Also, such technologies often reduce or eliminate the need for hospital care, thereby reducing associated costs.

### Today's Market

The United States produces more than half the world's medical technology, employing about 301,000 people and exporting about \$11.4 billion in products. In 1995, the United States produced \$56.7 billion in medical devices and diagnostic products; production is projected to grow to \$70.9 billion by 1998.<sup>1</sup> Innovative medical technologies are needed to help reduce the rising costs associated with today's health care. According to a recent report by the U.S. Department of Health and Human Services, the Nation's total spending for health care in 1995 increased 5.5 percent to nearly \$1 trillion, an estimated average of \$3,621 per person.<sup>2</sup>

### Tomorrow's Opportunity

The technical expertise used to solve the complex needs of ballistic missile defense has a fortunate spillover. It has resulted in new medical technologies some 10 years ahead of the medical curve that are beginning to make diseases easier to detect and simpler to manage. Many organizations are applying these technologies, making new breakthroughs in treating breast, cervical, and esophageal cancer, among other ailments. The following section describes eight of these innovations.

<sup>1</sup>Industry figures are cited from the Health Industry Manufacturers Association's U.S. Medical Technology Industry Fact Sheet.

<sup>2</sup>U.S. Department of Health and Human Services. 1997. National health expenditures for 1995. Press release, 27 January. World Wide Web at <http://www.os.dhhs.gov/news/press>.