

a report by

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Cancer is the second leading cause of death in developed countries, accounting for nearly one in five deaths. The costs of such a widespread killer are staggering, affecting both the individual and society as a whole. The US National Institutes of Health (NIH) estimated the overall annual costs for cancer in 2003 at US\$189.5 billion. This year in the US, more than 1.3 million new cases of cancer are anticipated, and approximately 563,700 Americans are expected to die from cancer, claiming over 1,500 lives each day.

Despite on-going research and past strides in the field of oncology, the overall cancer incidence rate has not substantially decreased, particularly in molecularly heterogeneous cancers such as lung cancer, and the disease continues to claim more lives each year. However, that is not to say that significant scientific improvements have not been gained with respect to the diagnosis and treatment of particular cancers. Self-evident from the organization of this inaugural issue of *Business Briefing: US Oncology Review*, not all cancers are alike. This is perhaps the single most important understanding gained from nearly six decades of cancer research since the signing of the US National Cancer Institute (NCI) Act in 1937 by President Franklin Roosevelt.

An equally significant paradigm shift, based on important clinical trials work championed by national multi-institutional cooperative groups such as the Cancer and Leukemia Group B (CALGB), American College of Surgeons Oncology Group (ACOSOG), and Radiation Therapy Oncology Group (RTOG), has been occurring in cancer treatment over the last two decades – a shift away from single modality to a multi-modality approach. For many of those who develop cancer, the best possible treatment nowadays may include some combination of surgery, chemotherapy, and radiation therapy. In specialized centers, oncologic surgeons are more capable than ever before in medical history to perform radical surgeries and successfully recuperate even those patients at an advanced age or with significant unrelated medical illnesses. Medical oncologists are now armed with a vast array of improved chemotherapeutics, some of which are the latest molecular-targeted agents. Also, the radiation therapist is now better able to deliver higher and more precise doses of radiation to tumors. In this issue, experts representing each of these subspecialty areas provide a snap-shot of current state-of-the-art diagnostics and treatments, as well as providing some insights into potential future directions in each of these fields.

As well as focusing on the disease itself, this issue contains articles that describe significant advances made in the adjunctive care of patients undergoing treatment for cancer. Improvements in these particular areas have greatly improved the patient's tolerance of cancer treatment in general, allowing a greater number of patients to successfully undergo and complete cancer treatment. For some patients, they have even remained active in their employment and personal life during cancer treatment – a far cry from several decades ago.

No doubt the field of oncology will continue to evolve as new scientific breakthroughs are made. Perhaps improved early detection and individualized treatment of all cancers may one day become feasible and effective. The fields of pharmacogenomics and cancer proteomics are two such new avenues for research and treatment development; they hold the promise of providing the first steps towards realizing these goals. ■

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