

August 15, 1992

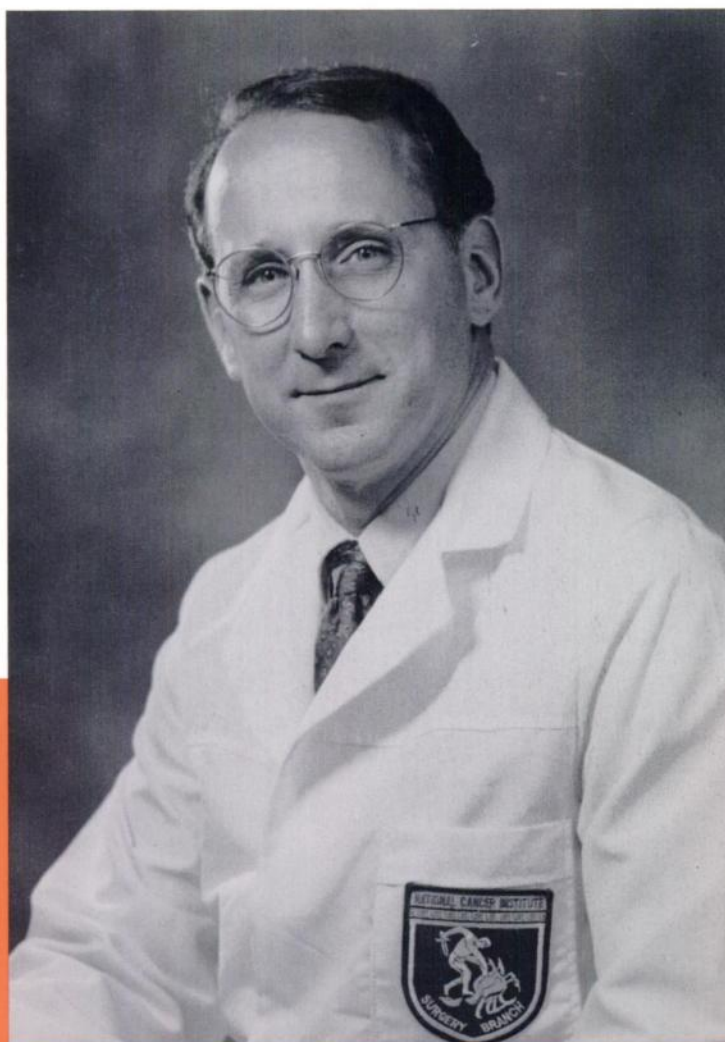


# Cancer Research

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AACR SPECIAL CONFERENCE IN CANCER RESEARCH

## Normal and Neoplastic Growth and Development



October 18-22, 1992  
Chatham Bars Inn, Chatham (Cape Cod), Massachusetts

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#### Keynote Address

**Robert A. Weinberg** / Cambridge, MA

#### Hematopoiesis I

**Irving L. Weissman** / Stanford, CA

**Charles J. Sherr** / Memphis, TN

**Alan Bernstein** / Toronto, Canada

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#### Hematopoiesis II

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**Flossie Wong-Staal** / La Jolla, CA

#### Hematopoiesis III

**Irwin D. Bernstein** / Seattle, WA

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#### DNA Tumor Viruses

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American Association for Cancer Research  
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Please send curriculum vitae to:

Michael Andreeff, M.D., Ph.D.  
Chief, Leukemia Section  
Chief, Section of Experimental Hematology  
Department of Hematology  
M.D. Anderson Cancer Center  
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Michael Andreeff, M.D., Ph.D.  
Chief, Leukemia Section  
Department of Hematology  
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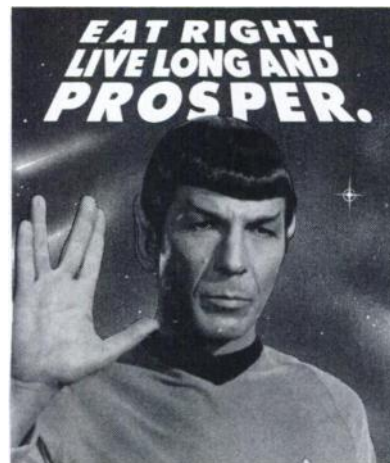
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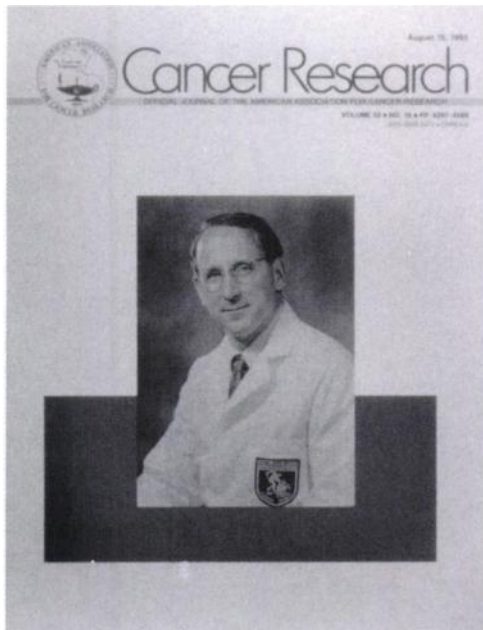
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# COVER LEGEND

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Rapid strides in the bedside treatment of human cancer are illustrated by the promising contribution of Steven A. Rosenberg, featured on this issue's cover. The method he is using, immunotherapy, utilizes the ability of the immune system, when properly fortified, to selectively attack tumor cells. Such innovative approaches, although still in their infancy, hold the promise of taking their place along with traditional surgery, radiation, and chemotherapy.

Although theoretically possible, the use of lymphocytes against tumors achieved a degree of practicality when Robert C. Gallo and his colleagues discovered a T-cell growth factor, now known as interleukin 2 (IL-2). This substance can be used to produce lymphokine-activated killer (LAK) cells, which can recognize and kill cancer but not normal cells. Rosenberg and his colleague demonstrated that the administration of LAK cells plus IL-2 could cause the regression of metastatic tumors in mice [Science (Washington DC), 225: 1487-1489, 1984], and in clinical trials they showed the effectiveness of IL-2 and LAK cells in the treatment of patients with advanced cancer (N. Engl. J. Med., 313: 1485-1492, 1985; 316: 889-897, 1987). Ultimately, a more potent lymphocyte was found to accumulate in tumors which, when treated with IL-2, grew rapidly and could recognize and kill those tumor cells from which it was derived [Science (Washington DC), 223: 1318-1321, 1986]. These tumor-infiltrating lymphocytes (TILs) were also successfully used in the treatment of cancer patients (N. Engl. J. Med., 319: 1676-1680, 1988).

To widen the applicability of these TILs, Dr. Rosenberg and his colleagues labeled TIL cells through gene

transfer, both to follow their fate in recipients and to enhance their potency. Using these techniques, he was the first to carry out the effective insertion of foreign genes into humans (Proc. Natl. Acad. Sci. USA, 87: 473-477, 1990; N. Engl. J. Med., 323: 570-578, 1990) and is pioneering gene therapy. He has recently begun the first gene therapy trials for the treatment of cancer using genetically modified TIL and tumor cells [Cancer Res., 51(Suppl): 5074s-5079s, 1991].

Dr. Rosenberg is Chief of Surgery at the National Cancer Institute in Bethesda, MD, and a Professor of Surgery at the Uniformed Services University of Health Sciences and at the George Washington University School of Medicine and Health Sciences in Washington, DC.

He received his B.A. and M.D. degrees from the Johns Hopkins University and a Ph.D. in Biophysics from Harvard University. After completing his residency training in surgery in 1974 at the Peter Bent Brigham Hospital in Boston, MA, he became the Chief of Surgery at the National Cancer Institute, a position he has held to the present time

Dr. Rosenberg has received numerous awards. He was awarded the Meritorious Service Medal from the U.S. Public Health Service in 1981 and again in 1986 "for unsurpassed excellence and leadership in basic research and clinical investigation relating to cellular biology and immunology in cancer and its treatment"; the Friedrich Sasse Prize from the University of West Berlin, Germany, in 1986; the Nils Alwell Prize from Stockholm, Sweden, in 1987; the Distinguished Alumnus Award from the Johns Hopkins University in 1987; the Simon M. Shubitz Prize from the University of Chicago Cancer Research Center in 1988; the Grifuel Prize for Research from the French Association for Research on Cancer in 1988; and the Milken Family Foundation Cancer Award in 1988. Dr. Rosenberg received the Armand Hammer Cancer Prize "for pioneering work in cancer research" in 1985 and 1988. In 1990 he received the Karnofsky Prize, the highest honor given by the American Society of Clinical Oncology.

Dr. Rosenberg is a member of the American Society of Clinical Oncology and has served on its Board of Directors. He is also a member of the Institute of Medicine of the National Academy of Sciences; the Society of University Surgeons; the American Surgical Association; the American Association for Cancer Research; and the American Association of Immunologists, among others. He is the author of over 500 articles in the scientific literature covering various aspects of cancer research and has authored 13 books.

Sidney Weinhouse