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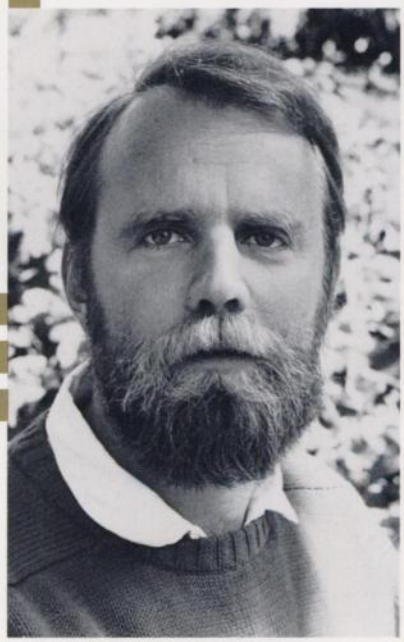

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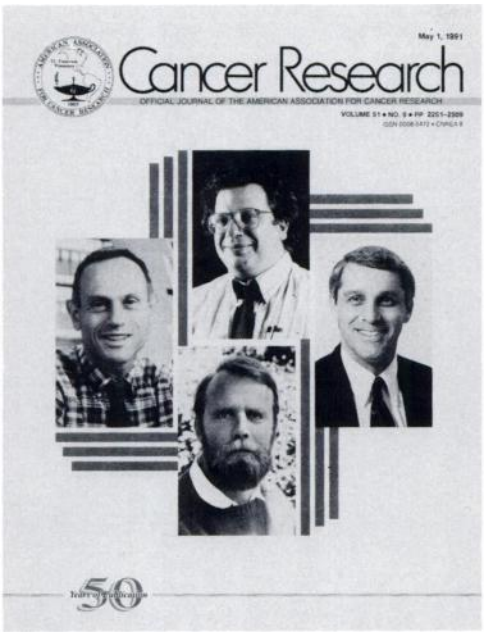

Featured on this issue's cover are the recipients of the 1991 scientific awards of the Association, which will be presented at the AACR annual meeting in Houston, May 15–18, 1991. Michael H. Wigler, Head of the Mammalian Cell Genetics Section of Cold Spring Harbor Laboratory and Adjunct Professor, Department of Genetics, Columbia University College of Physicians and Surgeons, New York, NY, will receive the Thirty-first Clowes Award. Dr. Wigler will be honored for the development and utilization of the techniques of gene transfer to isolate and characterize genes within tumor cells. A series of elegant experiments led to the identification of human tumor oncogenes and the demonstration that these oncogenes are present in the genome of normal cells. As a graduate student, he developed these techniques, which permitted the integration of virtually any gene into any mammalian cell. He then used these techniques to clone a gene from the human EJ bladder carcinoma which was capable of transforming mouse 3T3 cells. His demonstration that this gene was the cellular homologue of a viral *ras* gene responsible for transformation by murine sarcoma viruses has unified our thinking concerning the etiology of virus-induced and naturally occurring neoplasms. He has also identified the precise nature of the mutations in the cellular *ras* gene capable of generating a malignant phenotype and has exploited the power of yeast genetics to examine the function of *ras* proteins. More recent studies have led to the characterization of the entire pathway of cyclic AMP activation of protein kinase A in yeast.

The recipient of the Fifteenth Rosenthal Award is Owen N. Witte, Professor in the Department of Microbiology and Molecular Genetics, Investigator of the Howard Hughes Medical Institute, and holder of the President's Chair in Developmental Immunology, UCLA School of Medicine, Los Angeles, CA. Dr. Witte's award recognizes his seminal work on the development of the immune response and on growth regulation of hematopoietic stem cells by the *abl* oncogene and other molecular mechanisms. Dr. Witte was the first to show that the unique tyrosine kinase activity of the Abelson murine leukemia virus oncogene was responsible for its malignant potential. His group later showed that a closely related oncogene called *bcr-abl* was produced by the Philadelphia chromosome (Ph^1) and was critically involved in the genesis of several kinds of human leukemia, including chronic myelogenous leukemia. His molecular analyses of the *abl/bcr* hybrid gene have facilitated the differential diagnosis between Ph^1-positive chronic myelogenous leukemia and Ph^1-positive acute lymphocytic leukemia, thus improving patient management. He has also been a leader in the development of tissue culture techniques for the study of blood cell development and malignant transformation.

The Tenth Cain Memorial Award is given to Michael B. Sporn, Chief of the Laboratory of Chemoprevention, National Cancer Institute, Bethesda, MD. Dr. Sporn is an internationally lauded researcher in the fields of cell differentiation and growth regulation and is being honored for his pioneering work on transforming growth factor β (TGF-β) and his development of an assay system that permitted the unequivocal testing of a variety of retinoids and their analogues. This laid the foundation for a logical approach to the development of cancer-preventing agents. TGF-β is a regulatory protein that has profound inhibitory effects on a variety of normal and neoplastic tissues and is currently under study as a possible chemotherapeutic agent and bone marrow protectant. Dr. Sporn and his colleagues have made extensive contributions to the field by showing the ability of retinoids to reverse the preneoplastic effects of various carcinogens in culture and in animals. These studies include the prevention of carcinogen-induced bladder cancer, inhibition of mammary cancer and epithelial cancers, and the testing of various retinoids and analogues in the tissue culture system.

Richard C. Mulligan, member of the Whitehead Institute for Biomedical Research and Associate Professor in the Department of Biology, Massachusetts Institute of Technology, Cambridge, MA, will receive the Twelfth Rhoads Memorial Award. Dr. Mulligan has made outstanding contributions to the development of efficient gene transfer systems for mammalian cells and

to the construction and analysis of recombinant retroviruses with a broad range of mammalian hosts. He and his colleagues have used retroviruses to introduce genes into transgenic mice and to transfer the human adenosine deaminase gene sequences into murine hematopoietic cells, the human glucocerebrosidase gene to Gaucher fibroblasts, and the multidrug resistance gene to drug-sensitive cells. His recent studies utilizing genetically modified hepatocytes to ameliorate hyperlipidemia in low density lipoprotein receptor-deficient rabbits is expected to have important consequences. His development of safe and efficient recombinant retroviruses with amphotropic and ecotropic host range enhances the probability of developing useful gene therapy.

Pictured are: *left*, Michael Sporn; *upper middle*, Michael H. Wigler; *lower middle*, Richard C. Mulligan; and *right*, Owen Witte. Biographical materials were kindly supplied by the nominators, and members of the 1991 AACR Awards Committees.