



Cancer Research

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NIKON VISIONS



NIKON OPTIPHOT. THE EASY-TO-USE PHOTOMICROSCOPE WITH TOTAL RESEARCH CAPABILITIES.

Colon specimen photographed with Nikon CF 2x plan apochromat, CF 5x photo eyepiece.

INSTRUMENTATION

Nikon Optiphot microscope equipped with HFM Microflex photomicrography system.

SIGNIFICANCE

Through design innovations Nikon has produced a complete microscope and camera system capable of delivering consistently accurate photomicrographs with maximum speed and convenience.

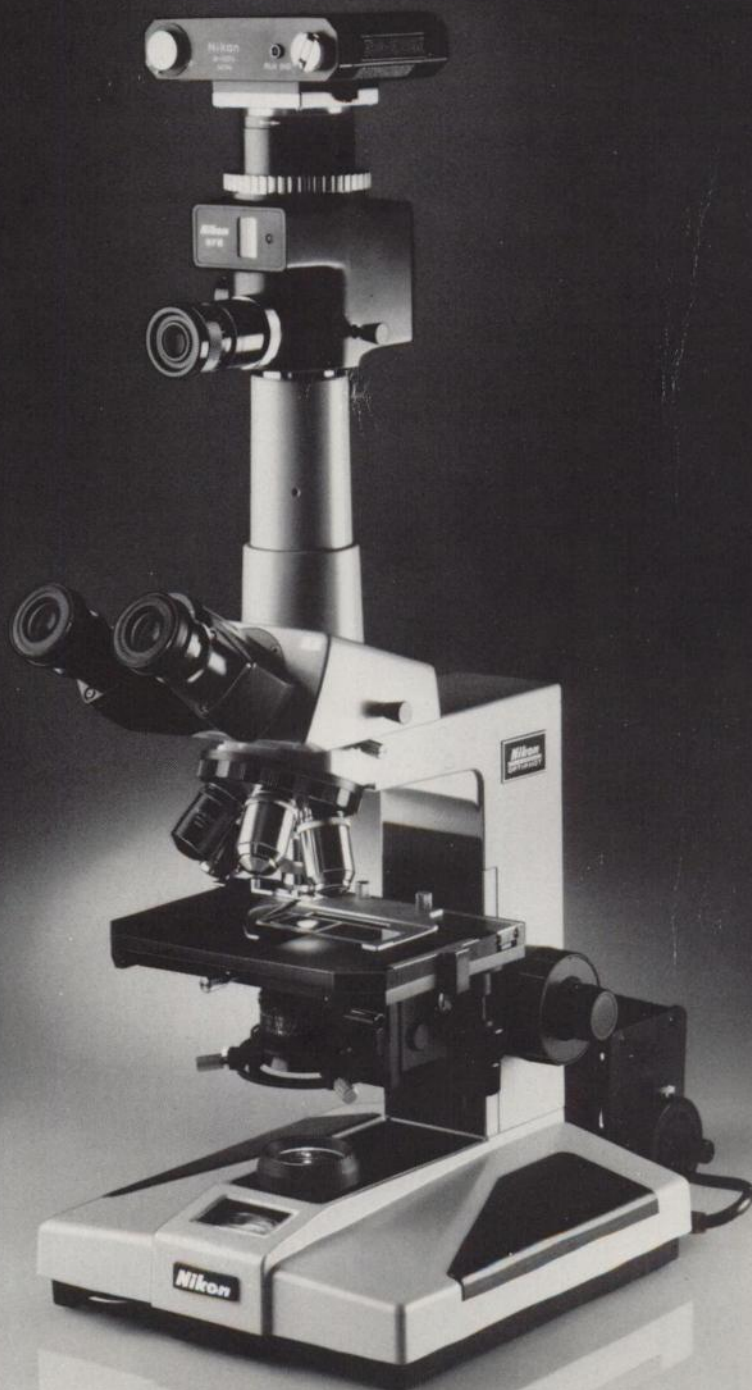
SPECIFICS

The Nikon Optiphot combines exclusive CF optics for images with full edge-to-edge sharpness, remarkable contrast and superior resolution with a totally new mechanical design. The massive base and rigid stand eliminate any vibration, while a constant color temperature 50 watt halogen Koehler illumination system provides enough light for any requirement. Images snap into crisp, sure focus with the ultra-precise focusing mechanism.

The HFM Microflex camera system consistently captures the superb images delivered by the Optiphot. It features totally automatic, computer-controlled exposure selection, electronic shutter and motorized film advance. The system can be adapted for Polaroid® or large format photography.

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COVER LEGEND



General Motors Cancer Research Foundation on May 26, 1980, announced its three annual awards for 1980. The awards consisted of gold medals and \$100,000 cash.

Elwood V. Jensen, Ph.D., director of the Ben May Laboratory for Cancer Research, The University of Chicago, received the Charles F. Kettering Prize for discovery of the mode of action of estrogen in target tissues and recognition of the predictive value of estrogen receptor measurements in human breast can-

cer, which is the most common malignancy of women in the Western world.

James A. Miller, Ph.D., professor of oncology, and Elizabeth C. Miller, Ph.D., professor of oncology and associate director of the McArdle Laboratory for Cancer Research, University of Wisconsin, Madison, a husband and wife team, shared the Charles S. Mott Prize for their outstanding contributions concerning the critical importance of metabolic activation and covalent binding of chemical carcinogens to informational macromolecules. This formed the basis, to a very large extent, of current major approaches for the detection of environmental carcinogens and our understanding of their mode of action.

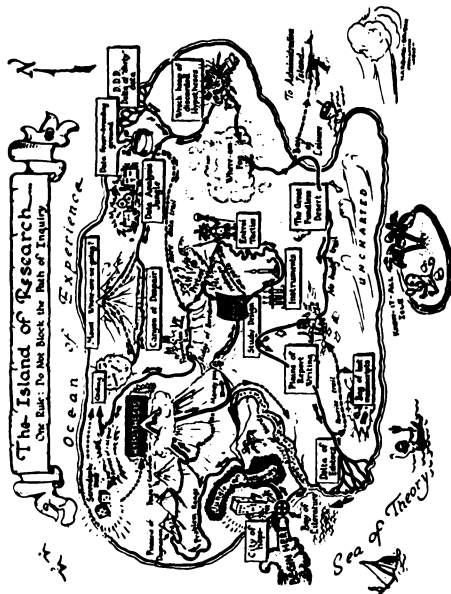
Isaac Berenblum, M.D., professor (retired) in the Department of Experimental Biology, Weizmann Institute of Science, Rehovot, Israel, was winner of the Alfred P. Sloan, Jr., Prize for his discovery of the initiation promotion mechanism of carcinogenesis. The production of cancer by chemicals was found to occur in two or more steps, each under well-defined but different conditions. The discovery opened new avenues for understanding what cancer is and how it works and suggested new approaches to cancer prevention.

Wearing the gold medals emblematic of their prizes are Dr. Berenblum (*second from left*), Dr. Elwood V. Jensen (*center*), and Drs. Elizabeth and James Miller (*right*).

The medals pictured, *top to bottom*, are of the Sloan, Kettering, and Mott prizes, respectively.

M. B. S.

COVER LEGEND



Back Cover

Happy Holidays!

The geography of the Island of Research is presented on the back cover for the occasion.

This invaluable aid to research workers was prepared by Dr. Ernest Harburg, Director of the program for urban health research of the University of Michigan, Ann Arbor, with the assistance of Elaine Stallman, and the artistic rendition of William Brudon. The original appeared in *American Scientist*, 54: 470, December 1966.

The map is both serious and humorous. As Dr. Harburg wrote in 1966, "there are fifteen years of scar tissue and laughter behind the illustration." Now there are almost three decades, but the topology remains recognizable.

Best wishes for the forthcoming year, from the Editors and the staff.

M. B. S.