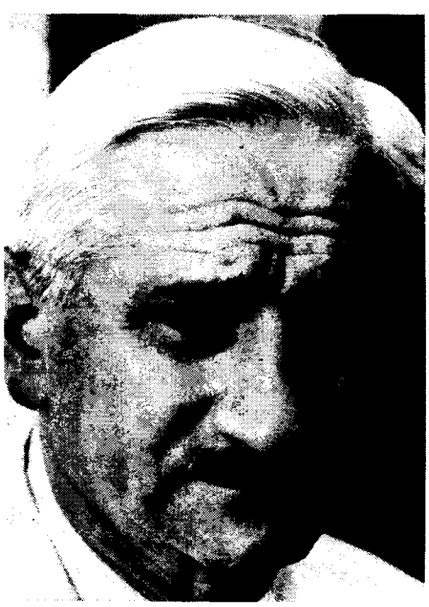
VIRUS AND CANCER

'The wall or me'—Sabin

A scientist who devoted 30 years to polio says he has spent only six on cancer virus and will end his career beating his head against a wall of frustration if that is necessary to prove that virus can cause cancer. "It depends on who gives in first—the wall or me," says Dr. Albert B. Sabin of the Childrens Hospital Research Foundation and the University of Cincinnati College of Medicine. He told last week's meeting of the American Academy of Pediatrics in Atlanta, that it is still not possible to say that any human malignancy is or is not virus-caused.

Hundreds of people, he points out, worked 40 years to produce the inbred strains of mice in which leukemia and Rous sarcoma have been shown to be



Pete Peters

Dr. Albert B. Sabin

caused by viruses. "If virus has produced cancer in chickens similar to that in mice," he reasons, "one can't get rid of the logical question: Why not in man?"

It is the lack of inbred persons that keeps scientists from finding the proof of virus cause of malignancy in man, he believes, and his present hope is that researchers can find an isolated place in some part of the world where inbred people will provide the necessary laboratory material.

"I have suggested this to the National Institutes of Health" he says, "and they are interested."

Dr. Sabin also believes that scientists could find in stillbirths and miscarriages material for tissue culture that would avoid the use of living humans for research.

The hottest thing on the research market in cancer virus just now, he says, is the possibility that herpes-like particles in cultures of the African Burkitt-type lymphoma cells might be what researchers are looking for.

The herpes virus, related to infectious mononucleosis, is believed to be a possible cancer virus by some, but no one has proved it. The virus-like particles in leukemic cells are present in small numbers even in naturally occurring disease of animals, and they are found only rarely in human material.

This material seldom has a nucleic acid core, and without this, there is no proof at all that it is the same thing as a cancer virus, Dr. Sabin says. "We need to distinguish between benign tumors, for example the papillomas in rabbits, which occur naturally in various species including man, and malignant tumors that are experimentally produced by some viruses.

"Thus far, no naturally occurring primary malignancy of lower animals or man has been shown to be caused by a DNA virus."

One hope in present research, Dr. Sabin says, is that some treatment may kill cancer before we learn what causes it. The fact that drugs have kept leukemic children alive up to 5 or 10 years encourages him.

In the search for a virus cause one must be very careful to determine whether or not the virus is only a passenger.

There may be a co-factor besides the virus.

"It's like smoking and lung cancer," he says. "Smoking is to cancer of the lung as the co-factor, yet unknown, is to virus cancer."

PATENT LAW

Administration compromise

In 1965, President Johnson appointed a commission to review the 175-year-old patent system and recommend reform. The commission's report, now embodied in a bill that has been before Congress since Feb. 21, 1967, has embroiled the Administration in a hassle with the American Bar Association, Senator Everett M. Dirksen (R-Ill.) and Representative Richard H. Poff (R-Va.).

The Administration wants patent reform by the expiration of the 90th Congress, partly because it wants the U.S. system settled so that it can negotiate a patent treaty with foreign countries. (One of the Administration's aims is to make the U.S. system more compatible with foreign ones.) In order to get a bill through, the Administration is now willing to compromise some of its desires, according to Patent Commissioner Edward J. Brenner.

Crux of the dispute is who should have patent rights to an invention. Present law gives it to whoever can prove he first invented the device. The Administration originally wanted to change this so that the first to file for a patent would receive it. Under the present system an innovator can delay patenting his invention secure in the knowledge that he can preempt anyone who tries to rush in to patent the same device. The Administration wanted to end such dilatoriness, and get ideas into use.

The Bar Association objected that the proposal would favor speculators who file first and tinker later, hurting careful people who perfect inventions before filing. Dirksen and Poff introduced bills expressing the lawyers' view that patents should go to the first filer—but only so long as no one else came along and proved he had invented first.

In testimony Jan. 30 before a Senate Judiciary subcommittee, Commissioner Brenner suggested possible compromises. But in his later testimony before the House subcommittee, he picked out an acceptable one—namely that patents go to the first filer so long as no one else proves that he invented first, and within a year before the first filer filed.

Now that the contending parties are coming together, chances for passing some patent measure are fair, particularly in the Senate; House chances still seem slimmer.

HERBICIDES

Britons question effectiveness

Evidence has accumulated from trial work and from a survey by the British National Agricultural Advisory Service that spraying with herbicides has not normally given cereal farmers increases in yield that more than cover the cost of spraying.

This was stated by Stanley Evans of the NAAS, at a conference on herbicides in intensive cereal production held at Cambridge University.

He says that not only has the average response to spraying by farmers in the NAAS survey—carried out between 1965-67—been found to be negligible, but even more disturbing, there is evidence that the effect of spraying had not infrequently reduced yields.

Evans stresses, however, that yield improvements are still possible where competitive or heavy weed infestations occurred, and that the farmer who is timely with his sprays greatly improves the chances of profitability.