'86 Laskers: AIDS, VD, growth work

Courtesy Lasker Fndn.

Top row, from left: Luc Montagnier, Robert Gallo, Myron Essex, Stanley Cohen. At far left, Rita Levi-Montalcini, Ma Haide.

The 41st Albert Lasker medical research awards, announced this week, went to three AIDS researchers, two of whose competing discoveries have resulted in a patent dispute; to two former co-workers who discovered growth factors; and to a New York-born man of Lebanese descent who was once the head doctor of Mao's Red Army.

In the clinical research category, Luc Montagnier of the Pasteur Institute in Paris, Robert Gallo of the National Cancer Institute and Myron Essex of Harvard University shared the honors for their AIDS research. Rita Levi-Montalcini of the Institute of Cell Biology in Rome and Stanley Cohen of Vanderbilt University in Nashville won the basic research award. And the public service award went to Ma Haide, born George Hatem, of Beijing. Each gets $15,000.

Montagnier was cited "for his discovery of the retrovirus responsible for causing AIDS." He detected reverse transcriptase in material from a patient with an AIDS-like condition. The enzyme is unique to a class of viruses known as retroviruses. He figured such a virus was at work, and began his search.

Gallo was honored for "his investigations of human T-cell lymphotropic retroviruses and his intellectual leadership in research into AIDS." Gallo established that viruses, specifically retroviruses, can cause human cancer, a finding that earned him a Lasker in 1982. He also isolated interleukin-2, an immune-system growth factor. Gallo is most noted for his AIDS work.

As a result of the viral isolation work by Montagnier and Gallo, French and U.S. companies have developed blood tests to detect antibodies to the virus. The U.S. government holds a patent for the test design; that patent is being contested by the Pasteur Institute.

Essex, who often collaborates with Gallo, initially worked on a retrovirus that causes feline leukemia. He has since done landmark work on the biology of retroviruses, determining that the AIDS virus is a retrovirus and that a similar virus exists in African green monkeys. This virus has been suggested as the original source of human AIDS.

Levi-Montalcini and Cohen share an award for their work on growth factors. Levi-Montalcini's early research was done in a makeshift laboratory in her native Italy. As a Jew, she was dismissed from a university appointment in 1939; she continued her research at home, and later in hiding.

After the war she remained in Italy as a doctor for refugees, and then went to Washington University in St. Louis, where she collaborated with Stanley Cohen on a nerve growth factor. Cohen isolated the factor, following up on work by her and others in which a particular tumor implanted in a chick embryo stimulated the development of nerve cells. He later isolated an epidermal growth factor.

Ma Haide left the United States for China in 1933 to treat venereal disease in prostitutes, then joined the Red Army to become its head doctor. When the People's Republic was formed, he began a massive campaign to wipe out venereal disease, closing brothels and administering penicillin. He has been credited with nearly wiping out venereal disease in China, and is currently working on leprosy eradication programs.

For the past two years, the Laskers have been upstaged by the Nobel Prize in medicine or physiology: Each year the Lasker committee has made its decision in late summer to be announced in November, and each October the Karolinska Institute has given Nobels to several of the yet-to-be-announced Lasker recipients. This year the Lasker announcement was moved up, and whether the Karolinska Institute will view it as foreshadowing remains to be seen.

— J. Silberner

Hope for international ozone accords

It is widely known that chlorofluorocarbons (CFCs), the chemicals used in air conditioning and in many other products, threaten the stratospheric ozone layer, which shields earth life from harmful ultraviolet radiation. But there has been disagreement among nations, and between CFC industries and governments, about the kinds of international limits that should be imposed on the production and use of CFCs.

In the last few weeks, however, two events have signaled increased hope for a meeting of minds when formal negotiations on CFC controls resume in December after a 17-month hiatus. The Alliance for Responsible CFC Policy, a Rosslyn, Va.-based coalition of 500 U.S. companies, announced it would support a "reasonable global limit on the future rate of growth of fully halogenated CFC production capacity." In fully halogenated CFCs, all carbon atoms are bound to fluorine or other halogens, making these compounds longer lived than other CFCs. Previously, the group opposed any global CFC controls.

"We still think there's a lot of scientific uncertainty on this issue," says Alliance spokesman Kevin Fay. "But we thought it necessary [to] develop a policy that provides some reasonable assurance that we don't ever get to the doomsday scenarios that have been the focus of so much attention lately."

Both Environmental Protection Agency (EPA) officials and environmentalists say they welcome the Alliance's change in policy. Environmentalists say that while the Alliance's specific proposal may not go far enough, it at least shows that the industry is taking the ozone issue seriously and is willing to work toward an agreement. "It's a positive step forward that recognizes the . . . scientific evidence," says Irving Mintzer of the World Resources Institute in Washington, D.C.

Another cause for optimism about future ozone protection is the United Nations Environmental Programme workshop, which was held in Leesburg, Va., in preparation for the December talks. All the major CFC-producing countries were represented, including the Soviet Union, which released its CFC data for the first time in 10 years. EPA officials say a new Canadian proposal to limit national CFC consumption, defined as production plus imports minus exports, greatly interested most participants, including the United States, which is now analyzing the idea in detail. Overall, says EPA's John Hoffman, "it was one of the most upbeat meetings [of this kind] I've ever been to."

— S. Weisburd