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COVER LEGEND

Discovery of RNA-directed DNA polymerase, or reverse transcriptase, was an important advance in the molecular biology of oncogenic viruses. The discovery was reported simultaneously in 1970, by David Baltimore (Nature, 226: 1209–1211, 1970) and Howard M. Temin and Satoshi Mizutani (Nature, 226: 1211–1213, 1970). The work was conducted with Rous sarcoma and Rauscher murine leukemia viruses. It helped to elucidate the mechanism by which RNA viruses can convert their genetic information into DNA, and it suggested that information in biological systems can flow into as well as out of DNA.

David Baltimore (upper left) was born in New York in 1938 and received his doctorate from the Rockefeller University, New York, in 1964. He has been with the Massachusetts Institute of Technology, Cambridge, Mass., since 1968, as Professor of Biology.

Howard M. Temin (upper right) was born in Philadelphia in 1934 and received his doctorate at the California Institute of Technology in 1959. He has been with the University of Wisconsin's McArdle Laboratory since 1960, now as Professor of Oncology. Satoshi Mizutani (lower) was born in Yokohama in 1937 and received his doctorate in microbiology at the University of Kansas. He was on a Fulbright scholarship while Temin's coworker, and he continues at the University of Wisconsin as assistant scientist.

In 1974 Baltimore and Temin were elected to memberships in the National Academy of Sciences. Both also hold American Cancer Society Research Fellowships.