Political Viruses: RNA Tumor Viruses and the War on Cancer

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Abstract

The passage of the National Cancer Act (NCA) of 1971, colloquially known as the "War on Cancer," is often regarded as a notorious example of political enthusiasm outstripping scientific evidence. A different view emerges if we examine the enthusiasm surrounding one of the four major areas of research targeted by the NCA: cancer viruses. During the late 1960s it appeared that the field was on the verge of discovering a human cancer virus and developing a vaccine. The creation of knowledge about these viruses provided common political ground between a community of molecular biologists and lay advocates of the creation of an aggressive, "moonshot," cancer research program. During the discussion of the NCA, the nature of these cancer viruses was therefore the target of both scientific and public controversy. I juxtapose the public and scientific reception of two announcements in 1970 concerning RNA tumor viruses, reverse transcriptase and the ESP-1 particle. One of the discoverers of ESP-1, Leon Dmochowksi, became a vocal advocate on behalf of the NCA while the discovery of reverse transcriptase was enlisted as an example against state direction of biological research. While ESP-1 was later deemed a laboratory artifact and reverse transcriptase research earned a Nobel Prize, both illustrate how the status of basic questions of RNA tumor virology became entangled with heated debates over the organization of patronage for biological research and the appropriate relationship between molecular biology and medicine.

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