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2019 ASSEMBLY JOINT RESOLUTION 103

November 6, 2019 - Introduced by Representatives Allen, Tauchen, Magnafici, Anderson, Sinicki, Steffen, Spreitzer, Subeck, Tusler, C. Taylor and Skowronski, cosponsored by Senators Risser and Olsen. Referred to Committee on Rules.

Relating to: declaring December 10, 2019, as Howard Temin Day in Wisconsin. 1 $\mathbf{2}$ Whereas, Howard Martin Temin was born on December 10, 1934, in 3 Philadelphia, Pennsylvania, the son of Annette Lehman and Henry Temin; and Whereas, Howard published his first scientific paper at the age of 18 before 4 graduating from Swarthmore College in 1955, and he began his research as a 5 6 graduate student in the laboratory of Professor Renato Dulbecco at the California 7 Institute of Technology, where he studied animal virology and authored his doctoral 8 thesis on the Rous sarcoma virus (RSV); and 9 Whereas, after earning his Ph.D. in 1959, Howard developed the theory that 10 RSV and other retroviruses could enter a cell and make DNA copies of themselves before integrating into the host genome; and 11 12 Whereas, in 1960, Howard accepted an assistant professorship in the McArdle

Laboratory for Cancer Research at UW-Madison; and

Whereas, in 1964, Howard proposed that RSV could translate its RNA into DNA, redirecting the reproductive activity of a cell and causing it to reproduce the translated DNA along with its own DNA, producing more cancer cells; and

Whereas, Howard's theory that a virus can infect and transform cells was initially met with skepticism because it ran contrary to the "central dogma" of molecular biology proposed by Francis Crick, which held that DNA was effectively immune from manipulation; and

Whereas, Howard's key discovery came in 1970, when he found that certain tumor viruses, now known as retroviruses, carry the enzymatic ability to reverse the flow of information from RNA back to DNA in a process known as reverse transcriptase; and

Whereas, in 1975, Howard, his former professor Renato Dulbecco, and David Baltimore won the Nobel Prize in Physiology or Medicine for their "discoveries concerning the interaction between tumor viruses and the genetic material of the cell," now recognized as one of the most important discoveries in modern medicine; and

Whereas, the discovery of reverse transcriptase led to the rapid development of tests for a human retrovirus and a class of drugs to combat the HIV/AIDS epidemic, saving an untold number of lives; and

Whereas, in the 1970s, Howard delivered a number of lectures in the Soviet Union and aided "refuseniks"—researchers who were targeted by the KGB and refused permission to emigrate from the Soviet Union—by providing them with gifts that could be resold to help support their families and giving them reprints of scientific journals because their access had been restricted by the Soviet government; and

Whereas, Howard's tenacity, moral compass, and unwillingness to accept the
"central dogma" of molecular biology and political threats against science and free
thought from a totalitarian state reflected the highest credit on himself and the
"Wisconsin Idea" that holds that education should influence people's lives beyond the
boundary of the classroom; and
Whereas, Howard taught and conducted research at UW-Madison until his
death from lung cancer on February 9, 1994; and
Whereas, since 1998, one of the two trails on the Lakeshore Path on the
UW-Madison campus has been named after Howard, who was known to bike or walk
the path to work every day, no matter the weather, using it for quiet contemplation
and reflection; now, therefore, be it
Resolved by the assembly, the senate concurring, That in commemoration
of the 85th anniversary of his birth, the Wisconsin Legislature hereby declares
December 10, 2019, as Howard Temin Day in Wisconsin; and, be it further
Resolved, That the assembly chief clerk shall provide copies of this joint
resolution to Howard's wife, Rayla, and daughters, Miriam and Sarah.

(END)