

Past progressive

Herpes B virus — “B” is for Brebner:
Dr. William Bartlet Brebner (1903–1932)

In medical virology, the letter “B” may be used to designate a separate etiology for viral hepatitis (hepatitis B virus) or the location of an unexpected reaction (parvovirus B19; panel B, sample 19). Herpes B virus, however, was named after a colleague of Dr. Albert B. Sabin¹ who was eulogized in *CMAJ* in 1932.²

Sabin and Dr. Arthur M. Wright reported that on Oct. 22, 1932, a patient identified as Dr. W.B. was bitten on 2 fingers by a macaque while researching the poliomyelitis virus.³ A neurological illness ensued and on Nov. 9, 1932, the patient succumbed to respiratory failure secondary to acute ascending myelitis in Bellevue Hospital, New York. The Nov. 10, 1932, edition of *The New York Times* reported the story of an accomplished young physician who died the previous day at Bellevue Hospital after a monkey bite.⁴ His name was Dr. William Bartlet Brebner.

Brebner, a native of Toronto, Ontario, was the son of Dr. James Brebner, former registrar of the University of Toronto, and the brother of Professor John “Bart” Bartlet Brebner of Columbia University. He entered medical school at the University of Toronto at age 16, earned his degree by 1926 and then performed research at the University of Toronto under Dr. Frederick G. Banting, the codiscoverer of insulin. Upon obtaining a grant from the International Committee for the Study of Infantile Paralysis in 1928, Brebner began research into the poliomyelitis virus, including immunization, at Washington University in St. Louis, Missouri.^{2,5} By the time of his death at age 29, he was an assistant professor of bacteriology at New York University and Bellevue Medical School and was attached to the New York City Health Department as the head of the poliomyelitis research division.¹ His work included publications on purification of the poliomyelitis virus⁶ and the host immune response.⁷ His death was lamented in



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Dr. William Bartlet Brebner, shown here in his University of Toronto graduation photo (class of 1926), died after being bitten by a macaque during the course of researching the poliomyelitis virus.

the scientific community⁸ and obituaries were published in both *CMAJ*² and the *Archives of Pathology*.⁵

After Brebner’s death, Dr. Frederick P. Gay and Margaret Holden obtained some of his neural tissue from Sabin³ and reported the recovery of an ultrafilterable agent, which they named “W virus;” they asserted that it was similar to herpes simplex virus.⁹ After extensive work, Sabin and Wright demonstrated this virus was a distinct entity and designated it “B virus.”³ This term is still commonly used in clinical texts such as Mandell, Douglas, and Bennett’s *Principles and Practice of Infectious Diseases* (6th ed), *Fields Virology* (4th ed) and the *Manual of Clinical Microbiology* (8th ed).

While his contemporaries understood the significance of the term “B virus,”¹¹ in the years since his death, Brebner’s identity has become somewhat shrouded in anonymity. In 1979, the seminal work by Robert M. Pike PhD on laboratory-acquired infections

mentioned a W. Brebner as the first recorded B virus victim, but nothing further.¹⁰ In 1985, Dr. Morris Schaeffer, Brebner’s collaborator on his final paper,⁶ briefly recalled the events of his death and the apparent influence on the work of Sabin (an intern at Bellevue Hospital at the time of Brebner’s death).¹ However, in the clinical textbooks mentioned previously, he remains only “WB” or “a researcher.”

Let us take this opportunity to remember Dr. Brebner for his contribution to polio research and virology in general. While his was “a life sacrificed in the interests of science,”² 76 years on, it has become quite evident that the sacrifice was not in vain. In addition to the remarkable work of Sabin that led to the production of an oral polio vaccine used around the world, researchers to this day continue to investigate new treatments for herpes B virus, a laboratory-acquired pathogen that continues to pose a threat to those engaged in biological research.

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REFERENCES

- Schaeffer M, William H. Park (1863–1939): His laboratory and his legacy. *Am J Public Health* 1985;75:1296–302.
- Obituaries. *CMAJ* 1932;27:683–4.
- Sabin AB, Wright AM. Acute ascending myelitis following a monkey bite, with the isolation of a virus capable of reproducing the disease. *J Exp Med* 1934;59:115–36.
- Bite by a monkey fatal to physician. *The New York Times* 1932 Nov 10;p. 24.
- Cowdry EV. Obituary: William B. Brebner 1903–1932. *Arch Pathol* 1933;15:133.
- Schaeffer M, Brebner WB. Purification of poliomyelitis virus. *Arch Pathol* 1933;15:221–26.
- Brebner WB. The immunization of monkeys against the virus of poliomyelitis. *Am J Pathol* 1931;7:546.
- Gwyn NB. Poliomyelitis. *CMAJ* 1933;29:75–80.
- Gay FP, Holden M. Isolation of herpes virus from several cases of epidemic encephalitis. *Proc Soc Exp Biol Med* 1933;30:1051–3.
- Pike RM. Laboratory-associated infections: incidence, fatalities, causes, and prevention. *Annu Rev Microbiol* 1979;33:41–66.