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## Thomas Huckle Weller

Virologist who shared the Nobel Prize in 1954 for work on poliomyelitis virus. Born at Ann Arbor, MI, USA, on June 15, 1915, he died in his sleep on Aug 23, 2008, aged 93 years.

In 2004, half a century after he shared the Nobel Prize in Physiology or Medicine for an achievement that sped the development of the vaccines against poliomyelitis, Thomas Weller wrote his autobiography. He called it *Growing Pathogens in Tissue Cultures*, which was an accurate, if rather modest, description of his career. In a similar vein, Weller had begun his Nobel acceptance speech, in 1954, with an acknowledgment that scientific achievements are almost never the work of a single person or even a single research group: "As nearly always in the undertaking of science many others who have worked with us have contributed of their minds and labor...And so we would think of them as here with us now, sharing in these great happenings."

Humility aside, Weller was an important scientist, says Dyann Wirth, of the Department of Immunology and Infectious Diseases at the Harvard School of Public Health. He exemplified the best in science, she says: "He was one of the few people who could experience in his lifetime something going from the lab to affecting so many people and having such a major public-health impact. As a person, he was clearly focused on the quality of science he was doing, and the kind of questions being asked and their public-health impact."

Weller, whose father was a pathologist at the University of Michigan, once said that "the bug of scientific curiosity"

had bitten him at an early age. His father was interested in birds, and Thomas himself published his first scientific papers, on ornithology, on work he did while still in his teens. Later, Weller earned a BA and a masters of science from the University of Michigan. He then moved to Harvard Medical School in the 1930s, graduated in 1940, and did his clinical training at Children's Hospital Boston. 2 years later, however, his work was interrupted by World War II and he was assigned to a laboratory in Puerto Rico with the Medical Corps of the US Army, where he worked on malaria control.

After the war, he returned to Children's Hospital and Harvard Medical School, working under John F Enders, who was using tissue-culture techniques to study the aetiology of infectious diseases. In 1949, Weller, Enders, and Frederick C Robbins, showed for the first time that it was possible to grow poliomyelitis virus outside nerve cells. "It was the early days of cell culture and they really went at it with a systematic approach", Wirth said. "They wanted to test everything they could, which is the hallmark of the scientific process."

As B Lee Ligon from Baylor College of Medicine in Houston, TX, wrote in 2002, the paper with which the trio reported their results (*Science* 1949; **109**: 85-87) "set into motion a race to develop a vaccine for the disease that had crippled countless thousands of individuals". In 1953, Jonas Salk reported that he had used the Boston team's technique to develop a killed-virus polio vaccine, followed a few years later by Albert Sabin's orally administered vaccine.

That discovery was the beginning of a productive career for Weller, who went on to make many contributions to virology, including isolating the varicella-zoster virus from cases of chickenpox and zoster, which provided suggestive evidence that the same virus is responsible for both diseases. He also isolated human cytomegalovirus for the first time in tissue culture, established Coxsackie viruses as the cause of epidemic pleurodynia, and isolated rubella virus, the cause of German measles. "Beyond his pioneering scientific breakthroughs in growing polio in culture and discovering varicella and rubella viruses, all of which made the new vaccines possible, Professor Weller became a champion for public health and the effort to focus the best of science on the diseases and health problems of the poorest people on the globe", Barry R Bloom, Dean of Harvard School of Public Health, said.

Weller also recognised the importance of thoroughly understanding the biology of diseases before attempting a public-health intervention, Wirth added. "In many senses he was before his time in recognising that science requires many disciplines working together when it comes to tackling public health problems."

Weller is survived by his wife, Kathleen, his sons, Peter and Robert, his daughter, Janet, and six grandchildren.

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