Unsung Heroes of Polio Eradication

Dr. Isabel Morgan, PhD

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The daughter of two accomplished biologists (her father won a Nobel Prize in 1933), Dr. Isabel Morgan was an early and important player in the race to find a polio vaccine. “Isabel Morgan is really one of the unsung heroes of the polio fight,” says author David Oshinsky. “She was a brilliant researcher.” (1)

Receiving her A.B. from Stanford University in 1932, she pursued her interest in bacteriology and received an M.A. from Cornell University in 1936 and a Ph.D. from the University of Pennsylvania in 1938, earning a PhD in bacteriology, Morgan worked at the Rockefeller Institute for six years before moving to a top-notch lab at Johns Hopkins where she joined David Bodian's poliomyelitis laboratory at the Johns Hopkins University School of Hygiene and Public Health. (2)

There, with March of Dimes funding, her team strove to immunize monkeys against polio. At the time, most other prominent virologists believed a vaccine could only be achieved using a live virus, but Morgan thought otherwise. After five years of work, her team became the first to successfully inoculate monkeys with a killed-virus vaccine.

Morgan’s research looked incredibly promising to those hoping for a human vaccine, but in 1949, at the height of her career, Morgan surprised the scientific community by leaving polio research behind forever. Morgan reportedly told friends that she quit the field because she was afraid of the next step: testing the vaccine on human children. Like many American women in the years after World War II, much of her energy went into being a homemaker for her husband and stepson. In Morgan’s case, this may have been a serious blow to the scientific community. “She was probably a year or two ahead of Jonas Salk in the race for a vaccine,” says Oshinsky. “Had she stayed the course, there’s a good chance today we’d be talking about the Morgan vaccine and not the Salk vaccine.”

For National Radio Day, a group broadcasting from a CBS microphone at the First International Poliomyelitis Conference, 1948. Isabel Morgan, center, and David Bodian, far right, were influential polio researchers.
Source: Hopkins Medical Archives

Morgan’s Legacy

Dr. Morgan spent the following years as a homemaker and stepmother, also working for eleven years at the Westchester County Department of Laboratory Research. After her stepson died in a plane crash in 1960, Dr. Morgan earned a masters degree in biostatistics and consulted at the Sloan-Kettering Cancer Institute in New York City. She died in 1996.

“The important thing to remember about her is that the science of polio was the science of building blocks,” says Oshinsky. “It wasn’t just Jonas Salk and Albert Sabin. Other people did so much of the research that these two scientists built upon.” (1)

Leaders in the effort against polio were honored at the opening of the Polio Hall of Fame on January 2, 1958.
From left: Thomas M. Rivers, Charles Armstrong, John R. Paul, Thomas Francis Jr., Albert Sabin, Joseph L. Melnick, Isabel Morgan, Howard A. Howe, David Bodian, Jonas Salk, Eleanor Roosevelt and Basil O'Connor.
Source: Wikpedia

Sources:

(1) www.pbs.org/wgbh/americanexperience/features/polio-bio-morgan/
(2) www.polioplace.org/people/isabel-merrick-morgan-phd