

CHAPTER 104

AN ACT designating *Streptomyces griseus* as the New Jersey State Microbe and supplementing chapter 9A of Title 52 of the Revised Statutes.

WHEREAS, *Streptomyces griseus* is a soil-based microorganism that was first discovered in New Jersey in 1916 by Dr. Selman Waksman and Dr. Roland Curtis; and

WHEREAS, Soon after its discovery, the microbe drew international acclaim for its groundbreaking use as an antibiotic; and

WHEREAS, In 1943, a research team from Rutgers University, led by Dr. Waksman with Albert Schatz and Elizabeth Bugie, used *Streptomyces griseus* to create streptomycin, the world's first antibiotic for tuberculosis; and

WHEREAS, The original discovery paper for streptomycin, entitled "Streptomycin, a Substance Exhibiting Antibiotic Activity Against Gram-Positive and Gram-Negative Bacteria," was co-authored by Dr. Waksman, Dr. Schatz, and Elizabeth Bugie, and published in the Proceedings of the Society for Experimental Biology and Medicine; and

WHEREAS, After clinical trials showed that streptomycin cured ailing tuberculosis patients, Merck & Company, a New Jersey-based pharmaceutical company, quickly made the drug available to the public; and

WHEREAS, Prior to this discovery, tuberculosis was one of the deadliest diseases in human history and the second leading cause of death in the United States; and

WHEREAS, Within 10 years of streptomycin's release, tuberculosis mortality rates in the U.S. fell to a historic low, with only 9.1 tuberculosis-related deaths per 100,000 people in 1955 compared to the rate of 194 deaths per 100,000 people in 1900; and

WHEREAS, According to a June 1947 *New York Times* article, streptomycin had "become one of the two wonder drugs of medicine" and offered the "promise to save more lives than were lost in both World Wars"; and

WHEREAS, Dr. Waksman was later awarded a Nobel Prize for Medicine and Physiology in 1952 for his work in discovering *Streptomyces griseus*, creating streptomycin, and curing tuberculosis; and

WHEREAS, *Streptomyces griseus* and streptomycin were two of the most consequential discoveries in the fields of biology and pharmacology during the twentieth century; and

WHEREAS, The unlocking of the antibiotic potential of *Streptomyces griseus* is a testament to the hard work and tenacity that changed the world; and

WHEREAS, Few people are aware of the enduring social value of Schatz, Bugie, and Waksman's research, as penicillin has overshadowed streptomycin as the twentieth century's greatest antibiotic discovery; and

WHEREAS, It is altogether fitting and proper to renew the public's awareness of this historic achievement, and New Jersey's role in combating tuberculosis, by designating *Streptomyces griseus* as the official microbe of the State of New Jersey; now, therefore,

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

C.52:9A-15 *Streptomyces griseus* designated New Jersey State Microbe.

1. *Streptomyces griseus* is designated as the New Jersey State Microbe.
2. This act shall take effect immediately.

Approved May 10, 2019.