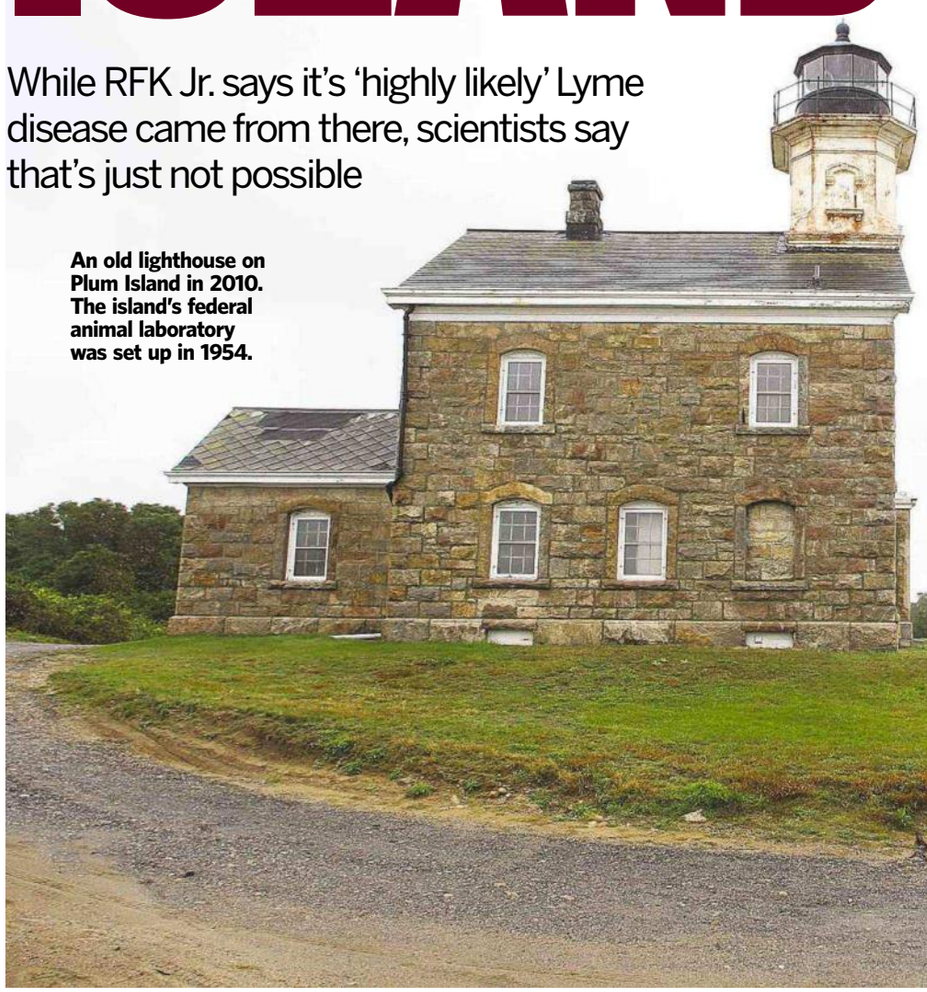
ONLY IN NEWSDAY

THE HISTORY AND MYSTERY OF PLUM ISLAND

While RFK Jr. says it's 'highly likely' Lyme disease came from there, scientists say that's just not possible



An old lighthouse on Plum Island in 2010. The island's federal animal laboratory was set up in 1954.

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In his first two months running the nation's vast Department of Health and Human Services, Robert F. Kennedy Jr. has riled mainstream health experts with his embrace of alternative measles treatments, mixed messaging on vaccines and plans to slash 20,000 jobs from the agency.

Less noticed has been Kennedy's promotion of a theory close to Long Island: Was Lyme disease developed at a government lab on Plum Island, which sits a mile off the North Fork?

On his podcast in early 2024, Kennedy said it was "highly likely" Lyme disease was developed as a military bioweapon on Plum Island. At his January confirmation hearings in the Senate, Kennedy didn't back down from the comment. The next day he noted he never "definitively" said it was created as a bioweapon, but pointed to three books that suggested the possibility.

"What I've said is, we should always follow evidence no matter what it says," said Kennedy, whose appointment was confirmed in February.

Infectious disease experts, as well as the Department of Homeland Security, which runs the Plum Island Animal Disease Center, dismissed the possibility that Lyme was created as a biological weapon. The bacteria responsible for Lyme disease has been found in specimens dating back well before the establishment of the government research lab on Plum Island — including in tick samples and in a 5,300-year-old mummy.

"There's absolutely no grounds whatsoever to say that

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Borrelia burgdorferi, the organism that causes Lyme disease, came out of Plum Island," said Jorge Benach, the retired chair of Stony Brook University's Department of Molecular Genetics and Microbiology, whose early research helped identify the bacteria.

Homeland Security wrote in a statement to Newsday that the facility "does not and has not performed research on Lyme disease."

The Department of Health and Human Services, the agency Kennedy now heads, didn't respond to requests for comment.

A highly guarded facility

For the last 70 years, Plum Island has served as a highly guarded federal animal research facility to protect the nation's livestock and other animals from African swine fever and foot and mouth disease, which can devastate the food supply. Operations at the aging facility are being transferred over the next few years to the U.S. Department of Agriculture's newly constructed National Bio and Agro-Defense Facility in Kansas.

Its isolated location and mysterious history have led to various theories about what goes on there. Homeland Security, which oversees opera-

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tions through its Science and Technology Directorate, addresses what it calls "lore" on its own website.

It notes "conspiracy theorists and fiction writers alike have tried to link the site to germ warfare, anthrax, and even a purported 'monster' found" in Montauk. "But reality offers a completely different story," the website says.

But its proximity to Lyme, Connecticut, where cases were first identified in 1975, and Suffolk County, which has one of the highest number of reported cases in the United States, has fueled the speculation.

Spread by the bite of an infected tick, Lyme disease causes a range of symptoms, including fever, chills, fatigue and muscle and joint aches, according to the Centers for Disease Control and Prevention. It may also cause a rash and more severe problems such as facial palsy, arthritis and inflammation of the brain.

Benach worked with renowned National Institutes of Health researcher Willy Burgdorfer who isolated the bacteria later named for him, Borrelia burgdorferi, from Shelter Island ticks in 1981.

In 1990, researchers from the Yale University School of Medicine examined museum specimens of deer ticks for the DNA sequencing specific to the bacteria that causes Lyme disease. It was found in 13 ticks gathered from Montauk Point and Hither Hills in the 1940s.

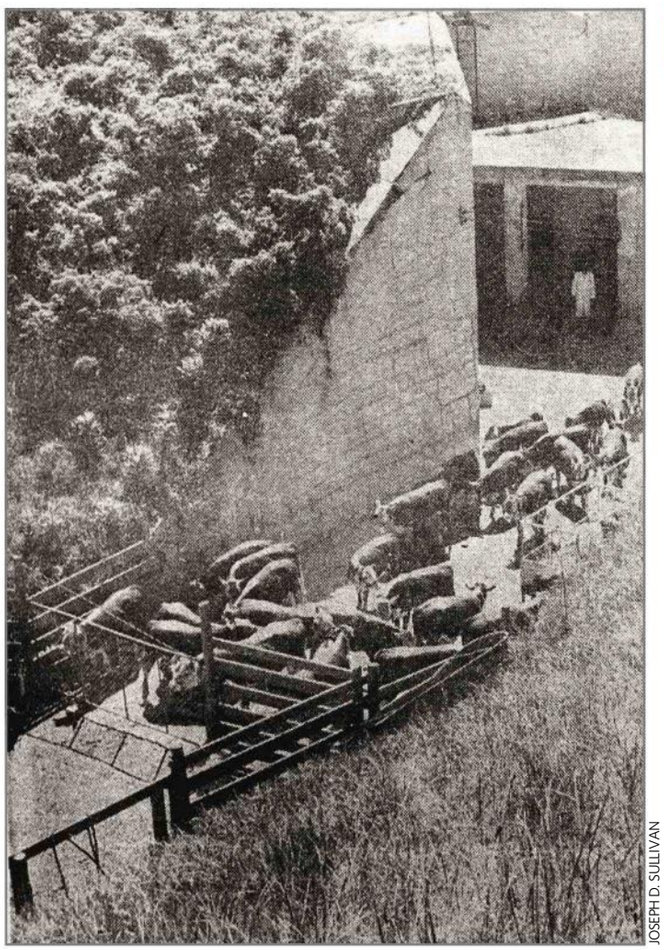
"Now, this is very important because Plum Island [animal lab] wasn't set up until 1954," Benach said.

Later discoveries showed Lyme disease appears to have been plaguing humans for even longer.

In 2012, European and American researchers published DNA research in the journal Nature Communications showing they had found traces of Borrelia in the 5,300-year-old mummy known as Otzi. His body had been preserved in ice before hikers discovered it in 1991, near the Italian-Austrian border in the Alps.

The Department of Homeland Security, in its statement, said that the primary diseases it researches are not transmissible to humans, though it sometimes works with zoonotic diseases, which can spread between animal species and humans.

"Our staff is trained and certified in stringent biosecurity measures to handle these samples to assure a safe laboratory work environment," the agency wrote.



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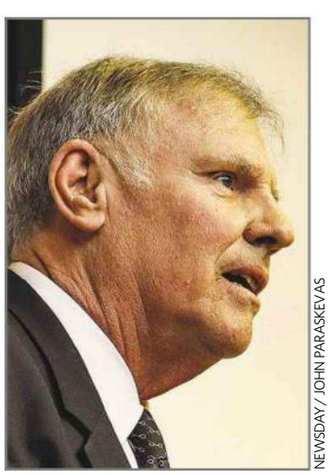
A newspaper clipping showing how contaminated animals were held under quarantine on Plum Island, photographed in 2004.



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Jorge Benach, seen in 2018. His early research helped identify the bacteria that is responsible for Lyme disease.

The basis for the theory

Two of the book authors who float the theory confirmed they have no direct evidence that Lyme was released from Plum Island.

Long Island native Michael Carroll dug into the lab's history while researching his 2004 book, "Lab 257: The Disturbing Story of the Government's Secret Plum Island Germ Laboratory," about the connection between Plum Island and Lyme disease.

Before it became an animal research lab, the U.S. Army Chemical Corps briefly operated it to focus on biological warfare experiments. Carroll, a lawyer and current city council member in Irvine, California, said he was able to get clearance to visit the island six times before he was banned by authorities, dug through dusty boxes of documents for seven years, and spent hundreds of hours interviewing past and present Plum Island employees.

Carroll said in an interview he uncovered declassified government documents showing the Army planned to use the lab at Plum Island to develop germ warfare in the early 1950s before it was turned over to the USDA.

While he didn't uncover any direct link to Lyme disease work being done there, Carroll said his research uncovered documents that showed hundreds of thousands of ticks were bred on Plum Island in the 1970s as part of experiments involving African swine fever. He also obtained a memo from the facility's head engineer that air from a potentially highly contaminated area had been escaping.

"Plum Island scientists continued their infectious virus research, in a porous lab facility they knew was inadequate to contain the germs safely," he wrote in his book.

There were three documented outbreaks of foot and mouth disease at the site, officials acknowledged. In 1978, the virus was accidentally released and infected animals kept in outside pens. There were two similar incidents in 2004 but those were contained inside buildings.

The Department of Homeland Security said research was conducted in the 1990s inside the "bio-containment facility using a small colony of soft-bodied ticks from Africa to study the transmission of African swine fever between pigs via ticks. These ticks were destroyed when the research was concluded."

Why that epicenter?

Carroll said he didn't dismiss the discovery of older specimens with Borrelia burgdorferi but said it doesn't explain how "a little Connecticut village on the Long Island Sound became ground zero for Lyme disease."

"The apparent epicenter of Lyme disease seems too coincidentally close to Plum Island," Carroll said.

Scott Campbell, Suffolk County's chief entomologist, tied the area's large tick population to the number of deer. "Where deer populations grow typically these tick populations grow as well," he wrote in a text message. "Deer populations have increased westward in Suffolk County so we are seeing [an] increase in tick numbers as a result."

Kris Newby, a science writer who had her own long battle with Lyme disease, also spent years combing through documents and conducting interviews about the disease. Her 2019 book, "Bitten," examined the U.S. government's role in developing ticks into bioweapons by putting bacteria and viruses into them. While her book makes only a few references to Plum Island, Kennedy's comments brought up at the Senate confirmation hearing were from an interview with her on his podcast.

Newby also interviewed Burgdorfer before his death in 2014. He gave her access to his lab books and letters, and he told her about his work turning fleas, ticks and mosquitoes into potential bioweapons.

She said the proximity of Plum Island to parts of Connecticut hit hard by Lyme disease is "certainly suspicious."

"Plum Island had a tick hatchery, safety lapses, and, according to 'Lab 257' interviews, open-air testing with biological agents," she told Newsday. "I couldn't find direct evidence that the outbreak came from Plum Island, but it's possible."

The theory caught the attention of Rep. Chris Smith, a New Jersey Republican. He offered an amendment in 2019 to get the Department of Defense's inspector general to review whether it experimented with ticks and other insects as biological weapons between 1950 and 1975; the scope of those experiments; and whether ticks or other insects were released outside of any lab "by accident or experiment design."

The amendment passed the House but failed in the Senate. Smith did not respond to a request for comment.

Dr. Eric Burnett, an assistant professor of medicine at Columbia University Irving Medical Center, said the Lyme disease and Plum Island theory continues, in part, because it provides a simple answer to a disease that can be difficult to understand and diagnose.

"There are no facts to support it," Burnett said. "But infectious diseases are complex and boiling it down to a conspiracy theory gives people a common enemy to focus on."

WHAT NEWSDAY FOUND

- **Health and Human Services Secretary** Robert F. Kennedy Jr. has made comments over the years suggesting Lyme disease was likely created or released from the Plum Island Animal Disease Center.
- **Infectious disease experts dismissed** those claims, saying the bacteria that causes Lyme disease has been found in specimens older than the lab.
- **Two authors who have investigated Lyme disease** acknowledged they do not have direct evidence.