



Women Make History:

Stories we should have learned in school

You may not know Katalin Karikó, but she may have saved your life.

After years of having her scientific theories dismissed as too far-fetched and even being demoted as a professor, today Dr. Katalin Karikó is being celebrated as the biochemist behind the success of the world's leading Coronavirus vaccines. The reason is her groundbreaking discoveries about messenger RNA (mRNA).



Once dismissed and demoted, Dr. Katalin Karikó is the genius behind the Moderna and Pfizer vaccines. Photo by [MedCityNews.com](#)

According to the [CDC](#), the key to COVID-19 vaccines is their use of mRNA. Until now, vaccines have been made using a weakened or inactive germ to stimulate the body's immune response. Instead, mRNA "teaches our cells how to make a protein." The protein then triggers the immune response and produces antibodies, which "keep us from getting infected."

Early in her career, the Hungarian-born Karikó was fascinated by the possibility of using the body's own genetic make-up to create immune therapies. A promising young professor at the University of Pennsylvania, in 1990 she began applying for research grants, but she received only rejections. "Every night I was working: grant, grant, grant," Karikó said in a Nov. 2020 article in [STATnews.com](#), "And it came back always no, no, no."

Eventually, Karikó was demoted and removed from the university's track to full professorship. "I thought of going somewhere else, or doing something else. I also thought [that] maybe I'm not good enough, not smart enough." But Karikó didn't give up. She pressed on and within a few years she partnered with Dr. Drew Weissman, a professor of immunology who shared her scientific interests.

In time, their work yielded results. Shortly after publication in 2005, two other important scientists (who would later help to found Moderna and Pfizer's partner, BioNTech,) recognized the far-reaching implications of Karikó's and Weissman's work. A founder of Moderna, Dr. Derrick Rossi, believes that Karikó and Weissman deserve the Nobel Prize in chemistry. "If anyone asks me whom to vote for...I would put them front and center," he said. Their "fundamental discovery is going to go into medicines that help the world."

Karikó is now a senior vice president at BioNTech, in charge of overseeing its mRNA program. She received the vaccine in December. In a [press release](#) issued by the same university that had dismissed her work, Karikó said, "I feel humbled, and happy," "I am more a basic scientist, but I always wanted to do something to help patients."

**We've seen a force that would shatter
our nation rather than share it,
Would destroy our country if it meant
delaying democracy.
And this effort very nearly succeeded.
But while democracy can be
periodically delayed,
It can never be permanently defeated.**

**Excerpt from “The Hill We Climb” by
Amanda Gorman**

Many of us cheered and even cried as Senator Kamala Harris became the first woman – and first person of color – sworn in as Vice President of the United States. But this remarkable moment yielded to even greater inspiration when twenty-two-year-old Amanda Gorman delivered her poem, [The Hill We Climb](#).

Composed for the Inauguration, two weeks earlier Gorman was worried about her ability to forge a sense of hope and common ground through her poem. When the Jan. 6 attack on the Capitol occurred with the violence it unfurled and the deep chasm it revealed, Gorman marshalled her creative strength. She worked through the night to finish.

Referring to the challenge she had set for herself, in a recent [article](#) by Alexandra Alter, Gorman said, "...I'm not going to in any way gloss over what we've seen over the past few weeks and, dare I say, the past few years. But what I really aspire to do in the poem is to be able to use my words to envision a way in which our country can still come together and can still heal," she said. "It's doing that in a way that is not erasing or neglecting the harsh truths I think America needs to reconcile with."



Amanda Gorman, the youngest Inaugural poet, may be Madame President in 2036. Photo courtesy of <https://www.theamandagorman.com/>

Even at her young age, Gorman is a woman of firsts. The youngest poet ever to deliver an inaugural poem, the Los Angeles native became the first National Youth Poet Laureate at seventeen. Her [comments](#) then were prescient.

"For me, being able to stand on a stage as a spoken word poet, as someone who overcame a speech impediment, as the descendant of slaves who would have been prosecuted for reading and writing, I think it really symbolizes how, by pursuing a passion and never giving up, you can go as far as your wildest dreams."

If Gorman's dreams come true, her presence at the 2021 inauguration is a harbinger of things to come. In a 2017 [interview](#) she said: "This is a long, long, faraway goal, but [in] 2036 I am running for office to be president of the United States. So you can put that in your iCloud calendar."

It's marked!



A direct descendant of Pocahontas, First Lady Edith Wilson was labeled "The Secret President," when President Wilson suffered a stroke in 1919. Photo by C.M. Bell photographer; Library of Congress.

Say, what? A Native American Woman Served as de-facto President of the U.S.?

Yes and no. Even the [White House website](#) notes that former First Lady Edith Wilson "functionally [ran] the Executive branch of government" after then President Wilson suffered a stroke in 1919.

A direct descendant of [Pocahontas](#), the First Lady was born Edith Bolling in Virginia in 1872. While visiting a sister in Washington, D.C., she met her first husband, Norman Galt, who died in 1908. Seven years later, mutual friends introduced her and then President Wilson, who had recently lost his wife. The two were married in December 1915.

During the first World War, the First Lady proved to be a strong, independent woman. To garner support for federal rationing efforts, Mrs. Wilson

son "observed gasless Sundays, meatless Mondays, and wheatless Wednesdays," according to author Betty Boyd Caroli. She also "set sheep to graze on the White House lawn rather than use manpower to mow it" and used proceeds from auctioning their wool to benefit the Red Cross.

In September, 1919, President Wilson suffered a stroke leaving him “an invalid... incapable of meeting with lawmakers, governing, or performing the duties of the presidency,” according to [historian Eric Burns](#). Burns also says that the First Lady controlled access to the president and made policy decisions on his behalf. “When something needed to be signed or written, she wrapped her hand around his and scrawled words with a pen.”

President Wilson died in 1924, but the First Lady lived to ride in President Kennedy’s inaugural parade. She died in 1961.

Bring it Home: Conversation Starters

Dr. Katalin Karikó and Amanda Gorman have followed their passions and overcome tremendous challenges including self-doubt. When have you felt like giving up? Ask a friend: How do you keep moving forward when you feel like quitting?

First Lady Edith Wilson became the legendary “secret president.” What super powers have you felt compelled to keep secret? Are you ready to own them?



[Sharon Spaulding](#) discovered the hidden story of Mary Ware Dennett, suffragist, sex-ed and reproductive rights activist, after she married Dennett's greatgrandson. Last year, [Time magazine](#) included Dennett as one of the most important women in American history.

Sharon has spent ten years researching first-wave feminism, the battle for reproductive rights, and Mary's life in the context of politics and social mores from 1914–1947. She received a grant from Radcliffe College's Schlesinger Library to support her research and the creation of a manuscript. Her journalism has appeared in BOLD and Utah Stories. She lives near Salt Lake City with her family and dog, Gus.

Sharon is available to speak on the forgotten stories of remarkable women and the history of the suffrage and reproductive rights movements in the early 20th century. Contact her at: Sharon@SharonSpaulding.com.

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