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An example of a scientific fairy tale: Katalin KARIKO

Every fairy tale begins with:

"*Once upon a time in Pennsylvania there was a fairy named Katalin KARIKO ...*

Internationally recognized scientist, Katalin was born in Hungary on January 17, 1955 in Szolnok to merchant parents. She quickly took an interest in science. Her Alma mater was at the University of Szeged from 1973. But after her doctorate in biochemistry, she found that she would not be able to do high-level research there. She and her family emigrated to the United States in 1985 to join Temple University in Philadelphia. With a simple research grant, she is collaborating in the development of a double-stranded RNA (dsRNA) vaccine for the fight against AIDS and hematological diseases. She left this university three years later for Washington. Eventually obtained a non-tenured professorship at the University of Pennsylvania in 1989. She then began to work on messenger RNA (mRNA). Still dissatisfied, because her biochemical colleagues are only interested in DNA vaccines against cancer and cystic fibrosis. She was unsuccessful in obtaining research funds for 1990.

In 1995, at age 40, a tenure from Katalin KARIKO presented itself to the University of Pennsylvania. She criticizes a DNA vaccine research project that she does not wish to be associated with, still defending the vaccine properties of mRNA. Deprived of a scholarship, instead of being tenured (tenure track), she is demoted to the level of a simple researcher! From then her career in Philadelphia was compromised.

His reluctance to work on DNA is mainly due to biosecurity issues; she fears that vaccine DNA could lead to transmissible, hereditary, undesirable side effects for humans ... In 1998, her request for a research grant was accepted, for $ 100,000, a relatively modest sum. A year later a million dollars will be awarded to her for her work.
In 1998, she met "in front of the photocopier" a colleague Drew Weismann, immunologist. She will team up with him to develop a vaccine mRNA system. But their first vaccine triggers an inflammatory immune response. In 2004, the Kariko-Weismann team developed a modified mRNA that no longer had inflammatory effects. This gene therapy was patented in 2012.

Katalin KARIKO believes that she will not find in USA the means to develop the concept of mRNA. She got closer to a German startup BioNTech, of which she became one of the vice-presidents. She is dedicated to the creation of immune cells that are sources of vaccine antigens, used in the fight against tumors and cancer.
In 2020, this technology will quickly be implemented in the fight against Covid-19 by the Pfizer-BioNTech association. The same mRNA technology is used by the company Moderna.

The end of this lived fairy tale naturally involves Prince Charming who could well be… a Nobel Prize for medicine!"