## Maine South Distinguished Alumni

## Susan Lindquist

Class of 1967

- Professor of Molecular Biology at University of Chicago
- Director of the Whitehead Institute for Biomedical Research (MIT)

Susan Lindquist, a pioneering genetic scientist, transformed our understanding of gene functioning in degenerative diseases such as Alzheimer's, Parkinson's, and Cystic Fibrosis. At a time when gender-inequality was still common, professional risk didn't scare Susan. She stated, "I thought it was a miracle that I got a faculty



appointment and was so happy to be there for a few years that I just wanted to follow what was exciting to me...I liked to do high-risk and high-payoff kind of research. And I had a gut feeling that MIT was a cool place to be with people who are fearless."

Her research with protein folding, the process in which proteins change shape during cell division, provided the first biological evidence that some genetic traits can be passed from one generation to the next through proteins alone, without the participation of RNA or DNA. This process was previously thought to be impossible. Her work has provided paradigm-shifting insights into the most basic aspects of cell biology, genetics, and evolution.

In appreciation of her lifelong research, Susan has been acknowledged around the world. Among the many awards, she has received membership in: the National Academy of Sciences (1997); Discover Magazine's list of 50 Most Important Women in Science (2002); the National Medal of Science (2009) conferred by President Barack Obama; and, the Royal Society as a Foreign Member (2015) conferred to fewer than 200 living persons in all branches of science.

Throughout her life, from the day her 5<sup>th</sup> grade teacher wrote on the blackboard, "What is Life?" to her directing microbiological research at MIT's Whitehead Institute, Susan's own words express how she felt about her quest. "...the sheer intellectual joy of finding out how life works is really cool. This is the greatest intellectual revolution, and it is happening right now, and I'm lucky enough to be in the middle of it."

Inducted September 21, 2017