

Judy N. Rodriguez
Alliance/Merck *Ciencia* Scholar Class of 2009
Studied Nuclear Science and Engineering at the Massachusetts Institute of Technology, Cambridge, MA
Nuclear Systems Operator at Seabrook Station in Seabrook, NH

Growing up in Elizabeth, New Jersey, Judy had some unique hobbies. “Doing math problems would entertain me for a whole day,” she said. “It’s probably really nerdy to say that.” All through middle school and high school, she worked her way through random physics questions for school and for fun. She felt a unique sense of fulfillment being able to solve challenging equations.

Judy says she inherited her work ethic from her mother, a bus driver who immigrated to the U.S. from El Salvador as a refugee of war. “Anything I do I probably do it for her,” says Judy.

Judy was accepted into Massachusetts Institute of Technology and was able to attend the university, in part, because she was selected as an Alliance/Merck *Ciencia* Scholar.

Through the Alliance’s summer program, Judy visited NASA’s Goddard Space Flight Center. On a tour with the other students she met several Latino engineers and had a chance to see the satellites they were building up close. Her trip to NASA helped clinch her decision to become a nuclear engineer.

In college, Judy was one of only two students in her class to gain a senior reactor operational license at the MIT Nuclear Reactor Laboratory. During the summer, she was matched to an internship at the Seabrook Station, a nuclear power plant in Seabrook, New Hampshire. Her first impression of Seabrook’s power plant was that it dwarfed MIT’s “baby reactor” she said. “Everything was 600 times bigger.”

Today Judy works full-time at the Seabrook Station, a position she was offered before the start of her senior year. As a nuclear systems operator, Judy measures how power is distributed across the reactor’s core. “You want all the fuel to be burnt up at the same time, so that you have a more efficient and longer lasting cycle of power. “

Being vigilant in tracking every measurement is key. “If the temperature is too high, the reactor can melt down.”

Judy’s ultimate goal is to secure a position in management. She looks forward to making a better, more comfortable life for herself and for her family.