National Science Foundation: Science Hard

INDIANAPOLIS — The National Science Foundation's annual symposium concluded Monday, with the 1,500 scientists in attendance reaching the consensus that science is hard.

"For centuries, we have embraced the pursuit of scientific knowledge as one of the noblest and worthiest of human endeavors, one leading to the enrichment of mankind both today and for future generations," said keynote speaker and NSF chairman Louis Farian. "However, a breakthrough discovery is challenging our long-held perceptions about our discipline—the discovery that science is really, really hard."

"My area of expertise is the totally impossible science of particle physics," Farian continued, "but, indeed, this newly discovered 'Law of Difficulty' holds true for all branches of science, from astronomy to molecular biology and everything in between."

The science-is-hard theorem, first posited by a team of MIT professors in 1990, was slow to gain acceptance within the science community. It gathered momentum following the 1997 publication of physicist Stephen Hawking's breakthrough paper, "Lorentz Variation And Gravitation Is Just About The Hardest Friggin' Thing In The Known Universe."

This weekend's conference, featuring symposia on how hard the Earth sciences are, how confusing medical science is, and how ridiculously un-gettable quantum physics is, represented a major step forward for the science-is-hard theorem.
"We now believe that the theorem is 99.999% likely to be true, after applying these incredibly complex statistical techniques that gave me a splitting headache," Farian said. "A theorem is like a theory, but, I don't know, it's different."

Members of the scientific establishment were quick to affirm the NSF discovery.

"To be a scientist, you have to learn all this weird stuff, like how many molecules are in a proton," University of Chicago physicist Dr. Erno Heidegger said. "While it is true that I have become an acclaimed physicist and reaped great rewards from my career, one must not lose sight of the fact that these blessings came only after studying all of this completely impossible, egghead stuff for years."

Dr. Ahmed Zewail, a Caltech chemist whose spectroscopic studies of the transition states of chemical reactions earned him the Nobel Prize in 1999, explained in layman's terms just how hard the discipline of chemistry is, using the periodic table of the elements as a model.

"Take the element of tungsten and work to memorize its place in the periodic table, its atomic symbol, its atomic number and weight, what it looks like, where it's found, and its uses to humanity, if any," Zewail said. "Now, imagine memorizing the other 100-plus elements making up the periodic table. You'd have to be, like, some kind of total brain to do that."

As hard as chemistry and other traditional sciences may be, scientists say such newer disciplines as quantum physics are even more difficult.

"Quantum physics has always been a particularly tough branch of science," UCLA physicist Dr. Hideki Watanabe said. "But in addition to being some of the smartest Einstein-y stuff around, it is undeniably a really stupid, pointless thing to study, something you could never actually use in the real world. This paradoxical dual state may one day lead to a new understanding of physics as a way to confuse and bore people."

"I guess there's cool stuff about science," Watanabe continued, "like space travel and bombs. But that stuff is so hard, it's honestly not even worth the effort."