

Award- Winning Scientific Journalist Speaks at the University of Illinois.
By: Matthew Haufe

Richard Harris presented his lecture, “Science Friction: What’s Slowing Research Progress in Research,” based on his new book “Rigor Mortis”, last week at the University of Illinois.

In his book, as well as in the lecture, Harris explained how over half of scientific studies are false because they cannot be replicated. He disputed the idea of calling this scientific problem a crisis.

“I don’t want to use the word crisis because a crisis is something new,” said Harris. “This problem has been happening for a long time now.”

Harris addressed a study done by Monya Baker which asked over 1,500 scientists whether or not there was a reproducibility crisis. Shown in figure 1, over half of the scientists surveyed believe there is indeed a reproducibility.

During the lecture, Harris identified four primary causes of the issue of false scientific studies and the inability to reproduce them: bad ingredients, statistical errors, funding pressure and designs that are susceptible to bias.

While these primary causes are areas of concern, Harris explained that there are multiple solutions to this problem. For one, validating results multiple times can ensure that the material tested is correct, and will prevent false results. Also, increased transparency with the research process can help increase reproducibility.

His main solution for this problem, however, is training the scientists who conduct this research more thoroughly and extensively.

“All of [the] statistical [errors] could be avoided if scientists were trained better,” said Harris.

Harris also recommended the increase in peer reviews to hopefully catch these problems in scientific research and help them improve. This could be done through increased reproducibility, and ways to solve this problem were outlined by Harris in his lecture.



