

Nationally Recognized Science Correspondent Talks on the Failures in Scientific Research

By: Quinn Brosnahan

Half of what is published in biomedical literature does not stand the test of time.

National Public Radio (NPR) science correspondent, Richard Harris, referred to this as a “sobering thought” when he visited the Illinois campus on October 19th to discuss his new book titled “Rigor Mortis.”

Harris has been recognized for his work in science by organizations like the National Academy of Sciences and The American Association for the Advancement of Science.

In his new book, Harris explains “How sloppy science creates worthless cures, crushes hope, and wastes billions.” *Rigor Mortis*’ goal was to make us think about what we can gain as a society if the avoidable errors in science are reduced.

Harris’ talk, titled “Science Friction: What’s Slowing Progress in Research,” took place in the Knight Auditorium within the Spurlock Museum.

Harris found that around 2002, the federal funding for science quickly began to drop. As the funding for science decreased, so did the ability to reproduce scientific experiments.

Even if one study may have looked very promising and could have opened other doors into something like a cure for a disease, the majority of the time scientists simply didn’t have the money to reproduce that experiment. Harris stated that reproducing experiments in science is essential because, “That’s how you know that they’re real, just making a claim isn’t good enough.”

While writing his book, Harris set out to talk to other professionals working in science and was surprised at how many people agreed to talk to him because they thought it was a serious issue. In fact, 52% of scientists say that there is a significant crisis in reproducibility of scientific research.

Eric Jakobsson, a professor for the School of Molecular and Cellular Biology, attended the talk to hear what Harris had to offer about the success that American scientists have found in reproducing experiments compared to the success that International scientists have found in reproducibility.

Over the years, Harris found that the main reasons behind the error in biomedical research are bad ingredients, faulty designs, statistical errors, and funding pressures.

Harris spoke with a former scientist named Henry Bourne who offered some advice on how to fix these problems saying, “It’s really a question of balancing ambition and delight.” Science

shouldn't be about making money but rather making discoveries that delight scientists and inform us.

On top of that, Harris found there is room for improvement in validating ingredients, making data more transparent, requiring more experience of scientists, and thinking more deeply about how to organize experiments and use finances.

Harris closed his talk by saying, if scientists can get their incentives right, everything else will fall into place.