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Biomedical research is in a dire state, with inaccurate and non replicable studies being put out.

NPR writer, Richard Harris, came to the Spurlock Museum Thursday to discuss these issues.

Harris analyzed the issue with research and looked at potential solutions to the issue in his book, "Rigor Mortis."

C.K. Gunsalus, the Professor Emerita of Business Administration at the Coordinated Science Lab at the U of I said that Harris, "provides us with a thoughtful and wide ranging exploration of practices and elements that pose significant challenges to achieving the level of rigor and getting things right that motivate researchers."

In an almost packed auditorium Harris delivered a 45 minute presentation about his findings and then held an almost 20 minute question and answer section after. Harris is not a scientist and has a bachelors degree in Biology, but has spent numerous years writing about science. So answering questions with the partly scientific audience was not too much of a challenge.

Harris started his talk, titled "Science Friction" (the title he wanted for his book), by talking about reproducibility.

He said reproducibility is a crisis in the field right now and cited a study that analyzed 53 key scientific studies and tried to reproduce them, of the 53, only six were successfully reproduced. This study motivated him to look more into this, so he took a year off and decided to write his book.

The problem of inaccurate studies and lack of producibility is happening in many fields, such as psychology, which has taken a proactive approach to dealing with it.

"I focus on biomedicine because we care about biomedicine, [we] are hoping for drugs and treatments for diseases and it has a very direct connection to us as human beings," said Harris.

Part of the problem is due to an influx in academic laboratories due to the increase in NIH funding. The amount of lab spaces increased by 50%, including at this University, said Harris, and that the money can create pressure to put out more studies. This pressure causes rushed results and laboratories not checking their results for reproducibility, which once their published gives off the false image of being accurate.

Harris offers the "HeLa" cells as an example. These cells from Henrietta Lacks, popularized in media, were the first cells to be reproduced and live in a laboratory. However, these cells have often been referred to in scientific papers, when in reality it has been a completely different cell, according to Harris.

Then people start citing that study and it turns into a domino effect of misinformation. Over a million papers have been published containing misinformation, according to Harris.

Harris offers a few solutions to the issue including better training for scientists, and better attention to detail and just checking your work once it's done. He also wants changes in incentives for scientists from the leadership at institutions, rather than just money for producing studies.

Harris thinks that deans and leadership of academic institutions across the country need to start having serious conversations about this, in order to keep the integrity in the field of science.

“Publish less, I think this is a key point, if you publish less, but when you publish you make it better, I think that would make a big difference, I think the volume of science that is coming out of these laboratories is really unmanageable; it’s really hard to get to know the scope of it,” said Harris.