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Speech Article

The success rates in scientific research and experimentation are at an all time low, and even the head of the National Institute of Health, the NIH, admits this. Richard Harris, a guest speaker at Spurlock Museum spoke about why this is and what changes need to be made.

Harris wrote a book called *Rigor Mortis* addressing these issues within science and what he believes are the solutions. He has been covering biomedical research since 2014.

Primary causes of the decrease in success within science comes down to not controlling elements of experiments, design susceptible to bias, statistical errors, and funding pressures according to Harris. Federal funding for the NIH doubled years ago but since has been on a steady decline.

“There are all of these people going into science and all the funding is drying up,” Harris said.

The lack of funding, along with the inability to reproduce experiments and results are preventing science from moving forward. Harris spoke of many incidents in which the lack of attention to detail and consistency within experiments leads to thousands of incorrect results and studies.

Solutions to this problem, according to Harris, include validating ingredients, transparency, better training, and easing the financial crunch. To make this work, Harris believes that we need to change the education system.

“Let’s do fewer studies but look at them more closely,” Harris said. He wants to create a new system of studying science. Instead of publishing the content as soon as possible, Harris wants people to publish less but make what is published better.

One of the most prominent issues that Harris addressed during his presentation was that there are so many subtle ways that things can go wrong in research and experiments. Scientists need to both strive to succeed but also be cautious with their work as to not waste money and time.

“It’s really a question of balancing ambition and delight,” Harris said.

In the Q&A portion of his presentation, Harris addressed other major issues science is facing such as the lack of trust people have in science, and the competition within science.

He stated that the NIH was focusing much more on the reviews of experiments rather than the grand proposals, which is another issue he believes needs to be fixed.

Peer review clearly is not doing its job in this department and Harris feels that perhaps the entire process of peer review needs to be reevaluated.