

EVERYONE PLAYS A ROLE IN RESEARCH INTEGRITY

A "PUBLISH OR PERISH" CASE STUDY

There are many reasons someone might engage in research misconduct — such as inadequate training and oversight, personal and professional stress, and fear of failure.

One potential driver of research misconduct is the pressure to "publish or perish." Let's look at how this is affecting Bob, a young scientist, and how his environment may be a contributing factor.

The U.S. Department of Health and Human Services (HHS) defines research misconduct as:

FABRICATION, FALSIFICATION, or PLAGIARISM in proposing, performing, or reviewing research, or in reporting research results.¹

Bob is falsifying data

Bob is working hard to publish his research. He is facing a tight deadline and his experiments are not yielding desirable results. He feels that the only way to meet his deadline is to falsify his data.

What leads him to commit research misconduct?

13

HHS makes about 13 findings of research misconduct a year.



PERSONAL LEVEL

Bob's lab is under pressure to publish

Dr. C, Bob's boss, places unreasonable demands on the lab team to produce publishable results. Dr. C is busy and rarely reviews the raw data. Without any oversight, Bob easily falsifies his data.

What can his lab supervisor do to reduce this pressure?

In 45 cases of research misconduct committed by trainees, 72% of supervisors had not reviewed the source data.²

72%



INTERPERSONAL LEVEL

The university rewards academic publications and grants

Dr. C needs more publications to earn tenure. Her department chair requires Dr. C to secure grant funding to maintain her lab. These pressures distract Dr. C from her mentoring responsibilities in the lab.

What can the university do to reward responsible research?



INSTITUTIONAL LEVEL

8%

Nature only publishes about 8% of papers submitted.³



The research community reinforces the pressure to "publish or perish"

Bob, Dr. C, and their institution are part of a broader research community. They all face the competitive pressures generated by their peers, funding sources, journals, and academic societies.

What can the research community do to change this norm?

RESEARCH COMMUNITY LEVEL

The pressures scientists face are perpetuated at every level.

What can you do to promote integrity from your place in this system?

Citations:

¹ For the full definition of research misconduct, see 42 C.F.R. § 93.103.

² Wright, D. E., Titus, S. L., Cornelison, J. B.. (2008). Mentoring and Research Misconduct: An Analysis of Research Mentoring in Closed ORI Cases. *Science and Engineering Ethics*, 14, 323-336.

³ Getting Published In Nature: The Editorial Process. (2016). Retrieved March 17, 2016 http://www.nature.com/nature/authors/get_published/

