The research community reinforces 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.

### PERSONAL LEVEL

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?

HHS makes about 13 findings of research misconduct a year.

### INTERPERSONAL 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.

### INSTITUTIONAL 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?

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

- **FABRICATION**
- **FALSIFICATION**
- **PLAGIARISM**

in proposing, performing, or reviewing research, or in reporting research results.1

### RESEARCH COMMUNITY LEVEL

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?

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.