Supervisor’s Responsibilities

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Overview

✓ Who is a mentor/supervisor?
✓ Why is mentoring important?
✓ Mentor’s responsibilities
✓ Mentees’ misconduct
✓ Tips on how to be a good mentor
NATURE AWARDS FOR MENTORING IN SCIENCE

10,000$ annually

Italy, 2013
Who is a mentor?

Odysseus told Mentor:

**TELL HIM ALL YOU KNOW!**

Relationship with transmission of knowledge and experience

Mentor and Telemachus
Who is a mentor?

“Someone who teaches or gives help and advice to a less experienced and often younger person.”
Merriam Webster Dictionary

“Someone who takes a special interest in helping another person develop into a successful professional.”
National Academy of Sciences

KNOWLEDGE, EXPERIENCE, ENCOURAGEMENT

Life long?
Why is mentoring important?

Mentoring increases **confidence** in performing work and attaining career goals.

Having a mentor increases the likelihood of **staying in academia**.

Having a mentor increases **interest** in the subject.

*Sambunjak et al Mentoring In Academic Medicine. A systematic review, JAMA 2006*
Why is mentoring important?

Mentoring facilitates **career advancement and productivity.**

Mentees allocate more time for **research**, write more **papers**, get more **grants**.

Lack of mentorship is a barrier to achieving publication and completing projects.

*Sambunjak et al Mentoring In Academic Medicine. A systematic review, JAMA 2006*
Why is mentoring important?

Mentors have a special **responsibility** to help new researchers master the **ethical** dimensions of research.

*Doing Global Science, IAP, 2016*
Mentor’s responsibilities

The head of a lab has overall responsibility of the quality and integrity of the research in her/his lab.

If a trainee commits misconduct, the PI is responsible!
Mentor’s responsibilities

Scientists in the earliest phases of their career might not know that some practices are wrong. They might not be aware of the consequences. Early career scientists cannot be expected just to know things!
Mentees’ misconduct

Haruko Obokata case

STAP cells, Japan, RIKEN institute, 2014, 2 papers retracted for plagiarism, image manipulation and data falsification. Fired by RIKEN institute, her supervisor and a co-author of the paper committed suicide.

Misconduct was found in her PhD thesis.

Her supervisor Yoshiki Sasai was criticized for poor mentoring.
Mentees’ misconduct

In review of **33 ORI cases in which trainee found guilty of scientific misconduct 1990-2004:**

- 90% involved fabrication, falsification or both
- 73% **mentors did not look at raw data**
- 62% **mentors did not set standards** for recording data

Trainee’s admission of misconduct

“There was much excitement over this {surprising and promising preliminary result} and I began to feel a self-imposed pressure to keep the positive data coming in. It was at this time that I began to substitute buffer for the control XXX. (…) Over time I lost more and more control and felt like I could not stop falsifying experiments.”

PREVENTION IS BETTER THAN CURE!
Are you a principal investigator, research coordinator, academic advisor, or mentor? Roles such as these place you in a unique position to cultivate exceptional research practices among the next generation of researchers.

1. **BE AVAILABLE & APPROACHABLE**
   - Your team wants to learn from **YOU**!

2. **REVIEW RAW DATA**
   - You are responsible for the integrity of your team’s data.

3. **COMMUNICATE EXPECTATIONS**
   - Prevent misunderstandings by making sure everyone is on the same page.

4. **PROVIDE TRAINING and GUIDANCE**
   - Avoid making assumptions about anyone’s skills or knowledge.

5. **KNOW YOUR RESEARCH INTEGRITY OFFICER**
   - Be prepared in case you ever suspect research misconduct.
Mentoring schemes

INSTITUTIONAL MENTORING SCHEMES

Not only for PhD students. Young PIs also need support!

EMBO mentoring scheme for Young Investigators and Installation Grantees

TRAINING
E.g. Lab Management Courses

http://lab-management.embo.org
Reward mentoring!