Lab Agreements, Lab Culture & Expectations

Danielle de Carle BREWS: 18 June 2021

What is a Lab Agreement?

A document that outlines the **key expectations** a PI has for members of their lab

• Includes what lab members can expect from their PI

Can also encompass...

- Statement of lab culture/values
- Code of conduct
- Other guidelines & protocols



EDI Survey 2020

• Desire for increased **transparency** as a main theme of responses

Why are we doing this?

BREWS financial survey:

- Folks didn't know what could (should?) be covered/reimbursed
- Uncertainty RE: available support, e.g.:

Have you ever taken advantage of advances that the department provides to help with interest costs? ³⁹ responses







To provide resources!

- LAST SLIDES references & example lab agreements
- <u>PADLET</u> ideas about what to include in a lab agreement &c.



Research suggests that lab agreements are an important step towards/component of effective mentorship.



MENTORSHIP

- Mentorship is...
 - a huge component of academic life
 - a factor in evaluations (for grants, career advancement, etc.)

MENTORSHIP

- Mentorship is...
 - not a focus of formal training

Undergraduate faculty

My institution takes mentoring into consideration during performance reviews						
	48% AGREE					
I have participated in training to be a mentor						
	6.9% AGREE					

National Academies of Sciences, Engineering, and Medicine, 2019 $_{\rm 8}$

<u>MENTORSHIP</u>

- Positive mentorship experiences are correlated with...
 - Women & underrepresented students being better integrated + more likely to persist in STEM
 - Anderson and Kim, 2006; Byars-Winston et al., 2015; Estrada et al., 2018; Felder, 2010; Good et al., 2000; Griffith, 2010; Huang et al., 2000; Lewis et al., 2016; Lisberg and Woods, 2018
 - Increased recruitment of underrepresented mentees into graduate school and research-related careers
 - Hathaway et al., 2002; Junge et al., 2010; Nagda et al., 1998; Thiry and Laursen, 2011
 - Self-perception of mentees as confident and competent
 - Tenenbaum et al., 2001; Waldeck et al., 1997
 - Increased scientific success: high impact publishing, induction into the National Academy of Science, etc.
 - Ma et al., 2020



Positive



Additional Benefits

- Overcome cultural differences, shifting roles
 - e.g. asking for money/time; transition from undergrad-to-grad student
- Reduce tensions arising from unclear expectations/lack of transparency
 - Especially important in academia highly variable
- Increase accountability for all parties

Additional Benefits

- Articulate the "unwritten curriculum"
- Acknowledge "invisible work" & distribute it fairly
 - Data organization, lab organization, ordering supplies, cleaning...
- Overcome double standards for women and minority groups
 - In academia, women and minority groups have higher expectation/burden of service without compensation (Social Sciences Feminist Network Research Interest Group, 2017; Miller & Roksa, 2019; National Academies of Science, Engineering & Medicine, 2020)

Who Benefits?

Help ensure good fit between mentors and new recruits!

Productive working environment & atmosphere!

Fruitful present and future collaborations!

Lab Members Members

PI

How does it function?

- Who should be involved in making it?
 - PI only? All lab members?
- Where should it be hosted?
 - Must be freely & easily available to all lab members
 - Consider hosting publicly recruitment
- How often should it be revisited?
 - Annually? When new folks enter the lab?

What to Include: ESSENTIALS

- Day-to-day lab function
 - Communication How? When? Waiting time?
 - Work hours & work-life balance
 - Meetings informal, regular, annual...
 - Access to/use of lab equipment/resources
- MONEY 💸
 - What is covered?
 - Reimbursement procedures
- Expectations for academic achievement
 - Grant applications; expectations for grades/publications
 - Meeting benchmarks committee meetings, appraisal, defense
- Guidelines for authorship
- Guidelines for conflict resolution
 - Within lab & external?



What to Include: EXTRAS

- Statement of Values
- Code of Conduct
- Lab meetings
 - What is a lab meeting?
 - How does each person have to prepare?
- Intellectual property
 - Who has rights to your code/figures/publications/samples/data?
- How is information stored?
 - Data organization and responsibility / accountability
 - Lab data, protocols, examples of grant applications, etc.?

- Procedures for leaving the lab
 - What happens to your lab notebook, samples, laptop, etc.?
- Allocation of lab tasks
 - What are they? Who is responsible?
- Manuscripts
 - How to prepare them?
 - Pre-prints?
- Protocols
 - Standards for reproducibility, lab/field notebooks, in-lab procedures, etc.
 - Ordering lab equipment/reagents
- Land acknowledgements*

Side projects

*If you choose to include a land acknowledgement, please do so under guidance from Indigenous-led initiatives, such as those offered by OISE or Indigenous U of T

Discussion

PADLET https://padlet.com/d anielledecarle/hqwo o8a3bn3fj83p

- What should be included in a lab agreement?
 - What expectations do you have of your lab members?
 - What expectations do you feel your lab members/supervisor(s) have of you?
- What are your experiences with lab agreements?
 - What are some things that have worked for you?
 - What are some things that could be improved?
 - Have you encountered any stumbling blocks?

How to Start?

• For Pls:

- Consider...
 - Writing the first draft before looking at examples
 - Involving lab members in the process

For students

• If you're interested in implementing a lab agreement, there are resources at the end of the presentation!

RESOURCES – Example Lab Agreements

The Compact between Biomedical Graduate Students and Their Research Advisors	Association of American Mec	lical Colleges
Field Operations Safety Manual	University of Califor	rnia
Lab Manual and Policies	Big Data Biology Lab	Fudan University
Trainee Orientation Document	Gibbons Lab	Institute for Systems Biology
Cobey Lab Handbook	Cobey Lab	University of Chicago
Lab Philosophy	Dryland Ecology & Global Change Lab	University of Alicante
Lab Policies and Tips	Avasthi Lab	Dartmouth University
Policies and Procedures	Marine Biodiversity Lab	University of California Irvine
Lab Values and Philosophy	Laboratoire d'écologie fonctionnelle végétale	Université de Montréal
Lab Expectations	Kat Milligan-Myhre's Lab	University of Connecticut
Lab Culture and Expectations	Meren Lan	University of Chicago
Lab Values and Guidelines	Bell lab	University of Illinois
Lab Mission and Operating Principles	Stinchcombe Lab	University of Toronto

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