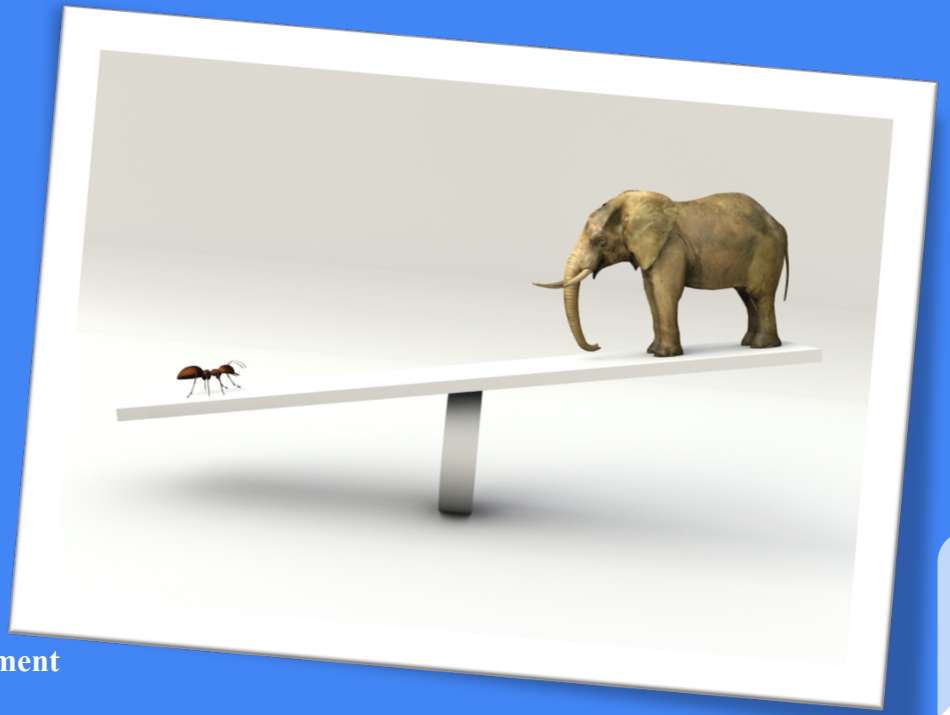
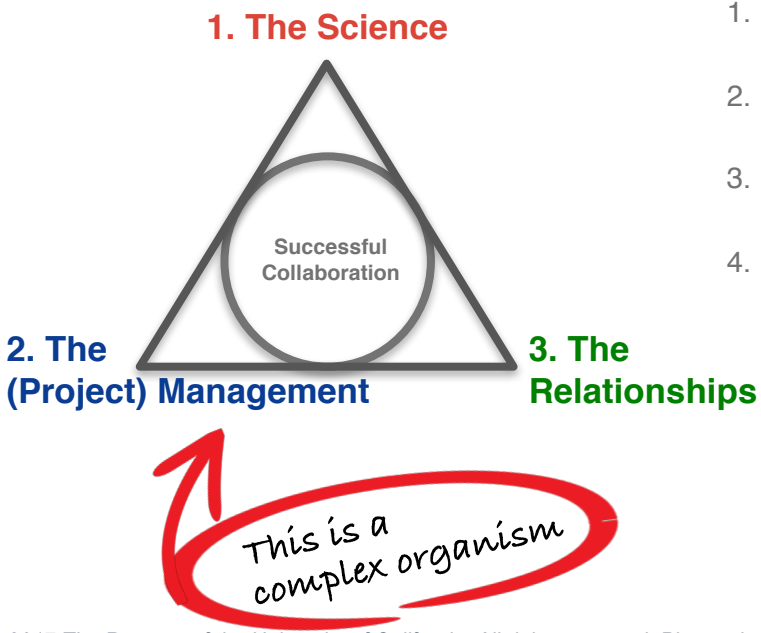
Managing (*the power differential in*) Scientific Collaborations as a Student or Postdoc



Naledi Saul
Director, Office of Career & Professional Development

Collaborating: What's the Problem?

Collaboration: When 2 or more people decide to work together to achieve common or complementary goals that benefits all parties.



1. Collaborations are common
2. Collaborations are considered important & valuable
3. Collaborations are complex
4. Everyone has their own perspective on how to manage a collaboration…because everyone learned in their own *(different)* lab

When everyone operates slightly differently when doing a complex, important and common thing…

The result is inefficiency, misunderstandings and difficulties.

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UCSF Office of Career & Professional Development
Student Academic Affairs

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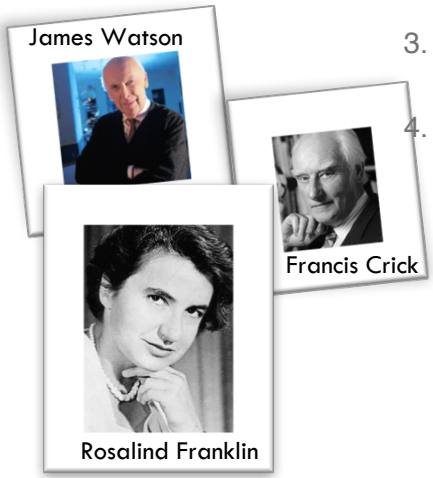
Julius Younger



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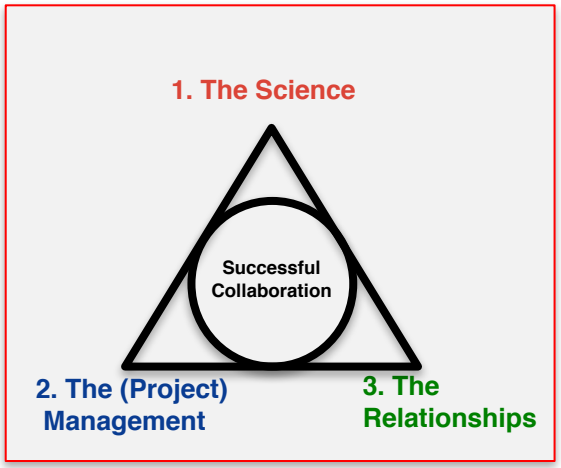
Agenda: What you need to know

3 things we want you to be able do by the end of this session…



1. **Identify criteria to assess the 'health' or functionality of your collaboration**
2. Discuss the impact of power on collaborations and discuss strategies to proactively manage unequal relationships
3. Recognize red flags in collaborations and know steps to address them skillfully

The Management & Relationships: Assess your scientific collaboration

Goals	Roles	Decisions/Timeline	Processes	Parameters	Values

Preempting Discord: Prenuptial Agreements for Scientists. By Howard Gadlin, NIH Ombudsman, and Kevin Jessar, NIH Associate Ombudsman

Collaborations: With all good intentions. Heidi Ledford. Nature 2008

The Team Science Toolkit: Enhancing Research Collaboration Through Online Knowledge Sharing. Amanda Vogel, Et Al.

Collaborative Agreement Template. Teamscience.nih.gov

Women in Global Science: Advancing Academic Careers through International Collaboration. Kathrin Zippel

Structures of Scientific Collaboration. Wesley Shrum, Joel Genuth, Ivan Chompaloy

International Research Collaborations: Much to be Gained, Many Ways to Get in Trouble. Melissa S. Anderson and Nicholas H. Steneck

The Management & Relationships: Assess your scientific collaboration

Goals	Roles	Decisions/Timeline	Processes	Parameters	Values
❑ What are everyone's publication goals (authorship, impact journal and timeline?) ❑ What are the other collaborators' goals and anticipated outcomes or products of the collaboration? ❑ Are all members of the research team on the same page regarding these issues?	❑ Who's doing what? (What are the expected contributions of each participant?) ❑ Who is the primary author and the last author? ❑ How and by whom will these decisions be made (about the contribution) ❑ Who will make sure that the work gets done ❑ How and by whom will personnel be supervised? ❑ Who will give public presentations, and how much data will they reveal? ❑ Are there conflicts of interest limiting a collaborators ability to play their role?	❑ What will be the criteria and the process for assigning authorship and credit? ❑ How will it be decided when and where to publish? ❑ How will it be decided about how to redirect the research agenda as discoveries are made? ❑ How and by whom will media inquiries be handled? ❑ How will equipment, materials or products be shared? ❑ Who owns the intellectual property? ❑ When and how will you handle intellectual property and patent applications? ❑ What's the timeline and key milestones for work (When is the project over?)	❑ What will be your mechanism for routine communications among members of the research team (to ensure that all appropriate members of the team are kept fully informed of relevant issues)? ❑ How often will you communicate? ❑ How will notes be kept? Who will keep them? ❑ Who will write any progress reports and final reports? ❑ How and by whom will data be managed? How will access to data be managed? How will you handle long-term storage and access to data after the project is complete? ❑ Who's monitoring progress regarding the ttimeline? ❑ (How will it be communicated /decided if someone wants the collaboration to prematurely end? ❑ What process do you use to address perceived wrongdoing?	❑ Should one of the principals of the research team move to another institution or leave the project, how will you handle, data, specimens, lab books, and authorship and credit? (Keep in mind that data, specimens, and lab books are usually the property of institution.) ❑ What happens if someone wants to form a separate, but related, collaboration with another lab? ❑ How will you negotiate the development of new collaborations and spin-off projects, if any?	❑ What does respect look like? ❑ Do they have your definition of integrity? / Can you trust them?

*This list is compiled from 1) https://ori.hhs.gov/preempting-discord-prenuptial-agreements-scientists: **Preempting Discord: Prenuptial Agreements for Scientists**. By Howard Gadlin, NIH Ombudsman, and Kevin Jessar, NIH Associate Ombudsman. 2) http://www.nature.com/news/2008/080409/full/452682a.html **Collaborations: With all good intentions. 3) http://www.nature.com/news/2008/080409/full/452682a/box/1.html. Box: The collaborators' prenup, and 4) OCPD Staff*

The Management & Relationships: Assess your scientific collaboration

Goals	Roles	Decisions/Timelines	Processes	Parameters	Values
❑ What are your personal publication goals (authorship, impact journal and timeline?) ❑ What are the other collaborators' goals and anticipated outcomes or products of the collaboration? ❑ Are all members of the research team on the same page regarding these issues?	❑ What are the expected contributions of each participant? ❑ How, and by whom, will personnel decisions be made? ❑ How and by whom will personnel be supervised? ❑ Who will give public presentations, and how much data will they reveal?	❑ What will be the criteria and the process for assigning authorship and credit? ❑ How will we decide when and where to publish? ❑ How will we decide about redirecting the research agenda as discoveries are made? ❑ How and by whom will media inquiries be handled? ❑ How will equipment, materials or products be shared? ❑ Who owns the intellectual property? ❑ When and how will you handle intellectual property and patent applications?	❑ What will be your mechanism for routine communications among members of the research team (to ensure that all appropriate members of the team are kept fully informed of relevant issues)? ❑ How often will you communicate? ❑ How will notes be kept? Who will keep them? ❑ Who will write any progress reports and final reports? ❑ How and by whom will data be managed? How will access to data be managed? How will you handle long-term storage and access to data after the project is complete? use to address perceived wrongdoing?	❑ Should one of the principals of the research team move to another institution or leave the project, how will you handle, data, specimens, lab books, and authorship and credit? (Keep in mind that data, specimens, and lab books are the property of institution.) ❑ What happens if someone wants to form a separate, but related, collaboration with another lab?	❑ What does respect look like?

It's improbable that you will answer all of these questions at the beginning of the collaboration. You'll address them incrementally throughout the duration. But it's important that you know them by the end.

Think, Pair, Share:
What are 10 (management & relationship) questions to answer at the beginning?

Goals	Roles	Decisions/Timelines	Processes	Parameters	Values
1. What are everybody's personal publication goals? (authorship, impact journal and timeline?)	2. Who's doing what? (What are the expected contributions of each participant?) 2. Who is the primary author and the last author? 3. Are there any conflicts of interest that may impact a collaborator's ability to play their role?	5. What will be the criteria and the process for assigning authorship and credit?	6. What's the timelime and the milestones 7. What process will you use to address a perceived wrongdoing?	8. Should one of the principals of the research team move to another institution or leave the project, how will you handle, data, specimens, lab books, and authorship and credit? (Keep in mind that data, specimens, and lab books are usually the property of institution.)	9. What does respect look like for all the participants? 10. Do they have your definition of integrity? / Can you trust them?

Q

1. **Think** of a current or previous collaboration
2. **Review** the priority questions: how many of these aspects did you determine within the first 30 days?

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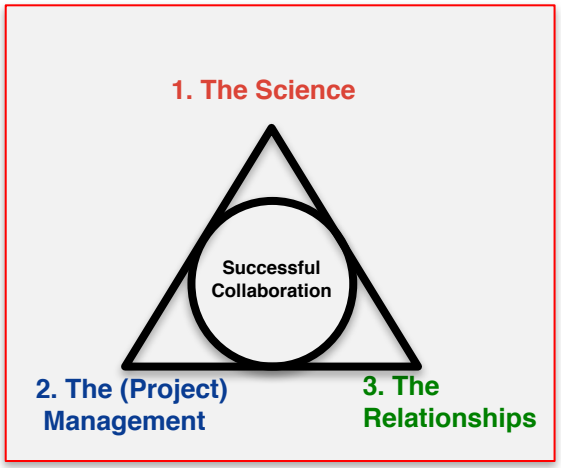


✓ **Identified** criteria to assess the 'health' or functionality of your collaboration

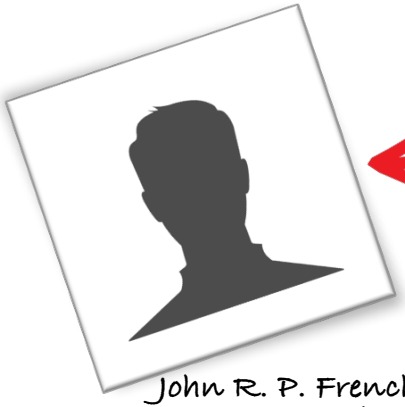
2. **Discuss the impact of power on collaborations and discuss strategies to proactively manage unequal relationships**

A basic theory of power, and why it matters to students and postdocs

John French & Bertram Raven: 2 social psychologists who argued that there are 6 bases of power:

1. Legitimate:
2. Referent:
3. Expert:
4. Reward:
5. Coercive:
6. Informational:

These gentlemen explore how individuals and groups function ...or don't



John R. P. French
(no photo available)

Bertram Raven

Source: https://www.mindtools.com/pages/article/newLDR_56.htm

John French & Bertram Raven: 2 social psychologists who argued that there are 6 bases of power:

1. Legitimate:	Your official right to make demands and to expect others to do what you say.
2. Referent:	Your reputation: Your perceived worthiness and right to others' respect.
3. Expert:	Your level of knowledge and skill in a particular area.
4. Reward:	Your ability to reward people for doing want you want.
5. Coercive:	Your ability to punish others for not doing what you want.
6. Informational:	Your ability to control the access to information that someone else needs to accomplish something.

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So, think of this as a ‘power rainbow’.
To explain why this theory matters to you as a student or postdoc…

1. **Legitimate:**	Your official right to make demands and to expect others to do what you say.
2. **Referent:**	Your reputation: Your perceived worthiness and right to others' respect.
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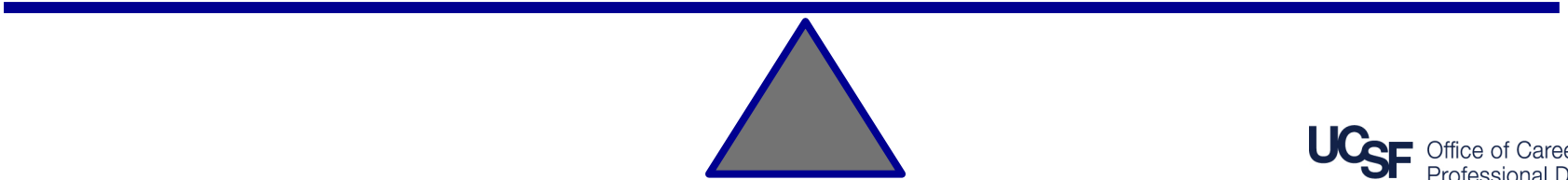
Each of the 6 bases of power more naturally lie on the side of the senior scientist in the collaboration:

Senior Scientist **Trainee**



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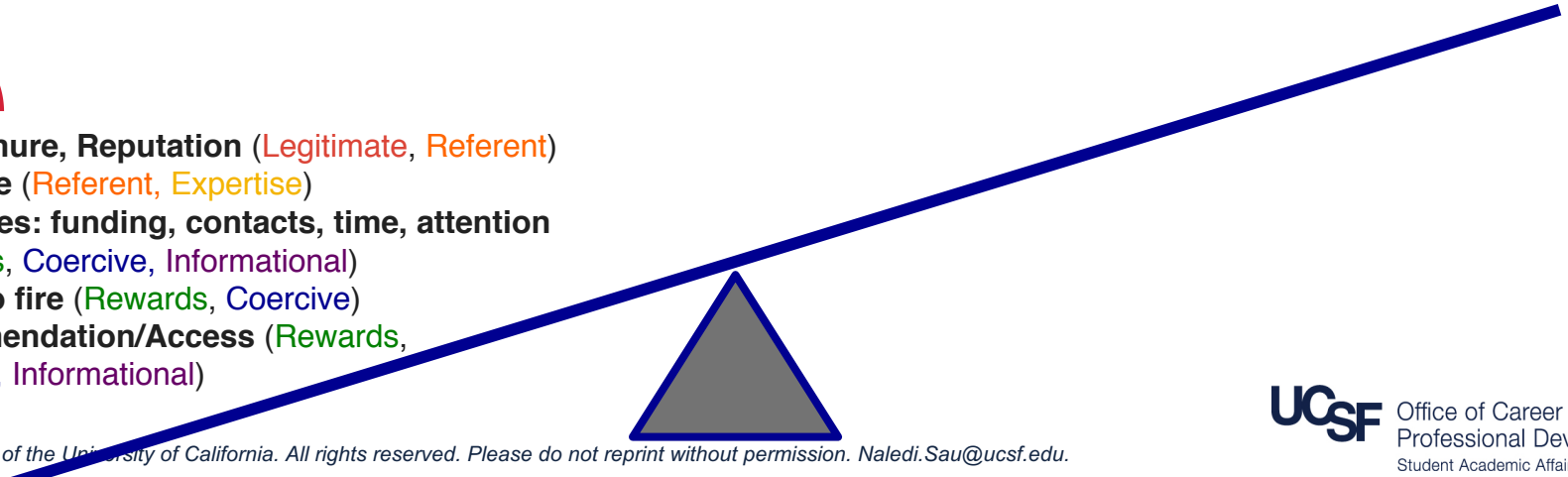
1. **Title, Tenure, Reputation** (Legitimate, Referent)
2. **Expertise** (Referent, Expertise)
3. **Resources: funding, contacts, time, attention** (Rewards, Coercive, Informational)
4. **Ability to fire** (Rewards, Coercive)
5. **Recommendation/Access** (Rewards, Coercive, Informational)



Junior members who wish to manage the pull of the power differential need to proactively and incrementally strengthen their position:

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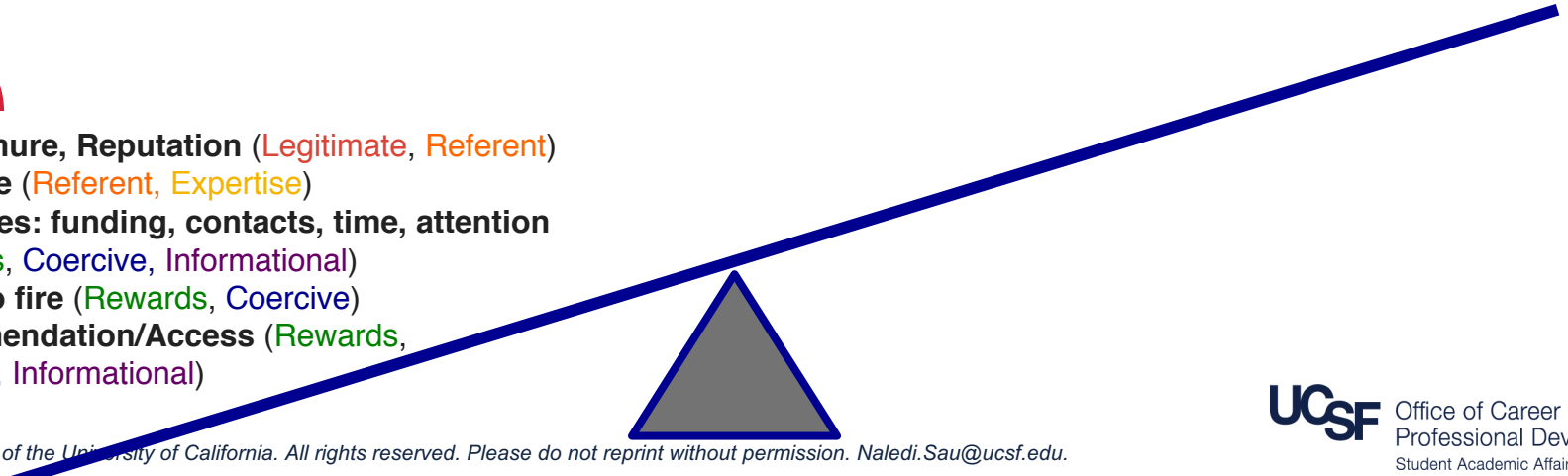

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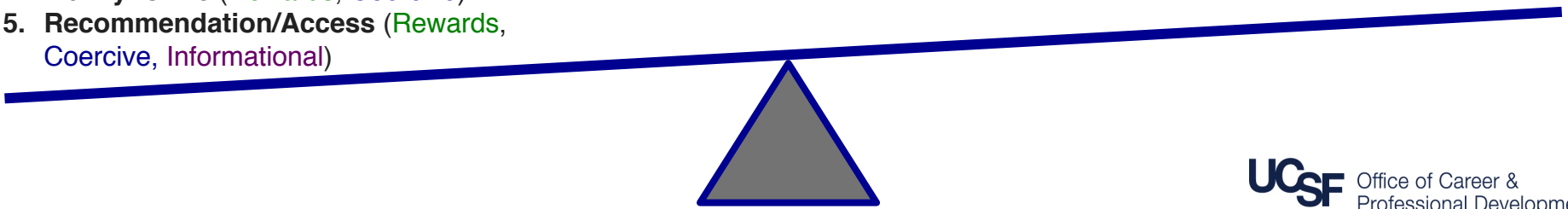

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Trainee

1. **Funding** (Rewards, Coercive)
2. **Identify allies** (Legitimate, Referent)
3. **Productivity (publications, etc.)** (Referent, Expertise)
4. **Developing your own reputation** (Referent, Expertise)
5. **Cultivate mentors (**Expertise, Rewards, Coercive, Informational)
6. *Strategy:* **Identify timelines & milestones to assess the health of the relationship** (Informational)
7. *Strategy:* **Respond to red flag moments** (Informational)
8. Strategy**: Create a paper trail** (Informational)

And the kicker is: the more ‘parts of the rainbow’ you cultivate, the stronger your position if and when issues arise:

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For example, if something like this happened....

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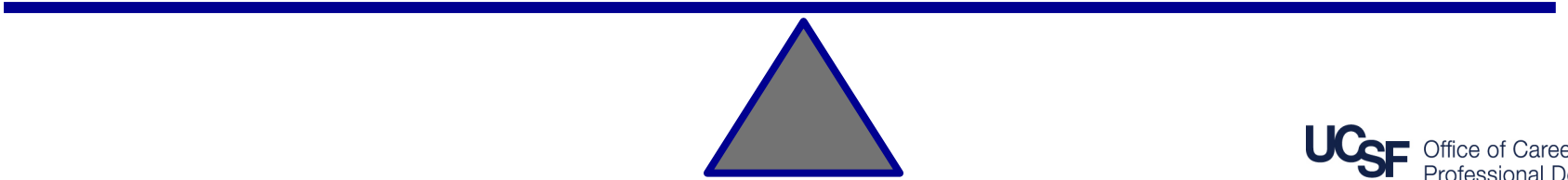
Trainee



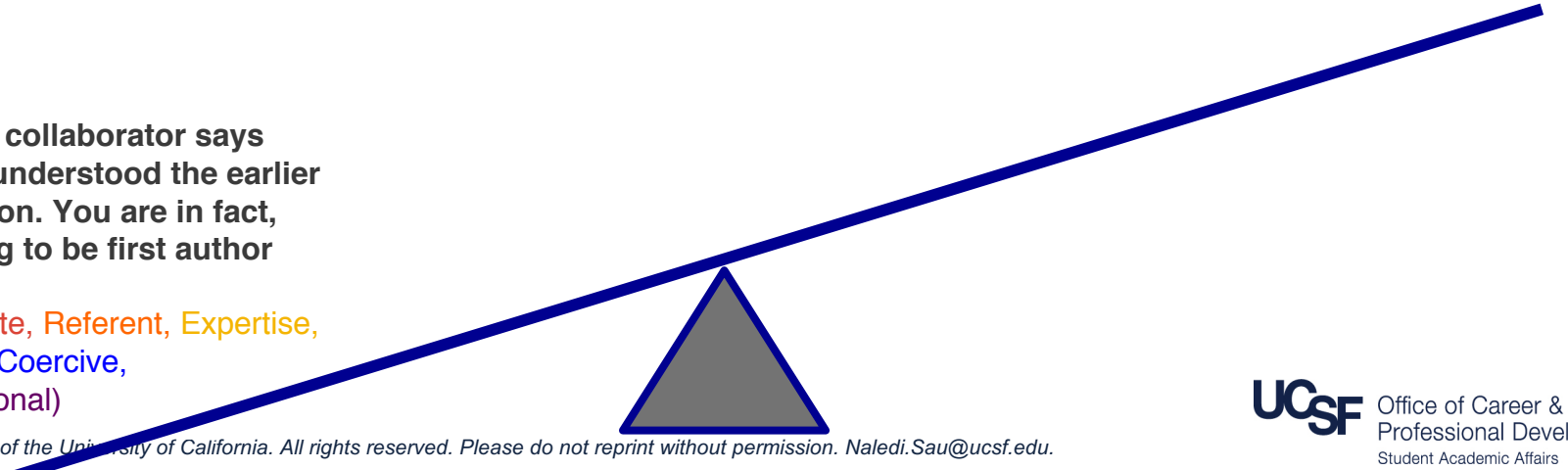
For example, if something like this happened....

Senior Scientist

Trainee

A senior collaborator says you misunderstood the earlier discussion. You are in fact, not going to be first author

(Legitimate, Referent, Expertise, Reward, Coercive, Informational)



…a student/postdoc would probably want to take a number of proactive steps:

Senior Scientist | **Actions to respond** | **Trainee**

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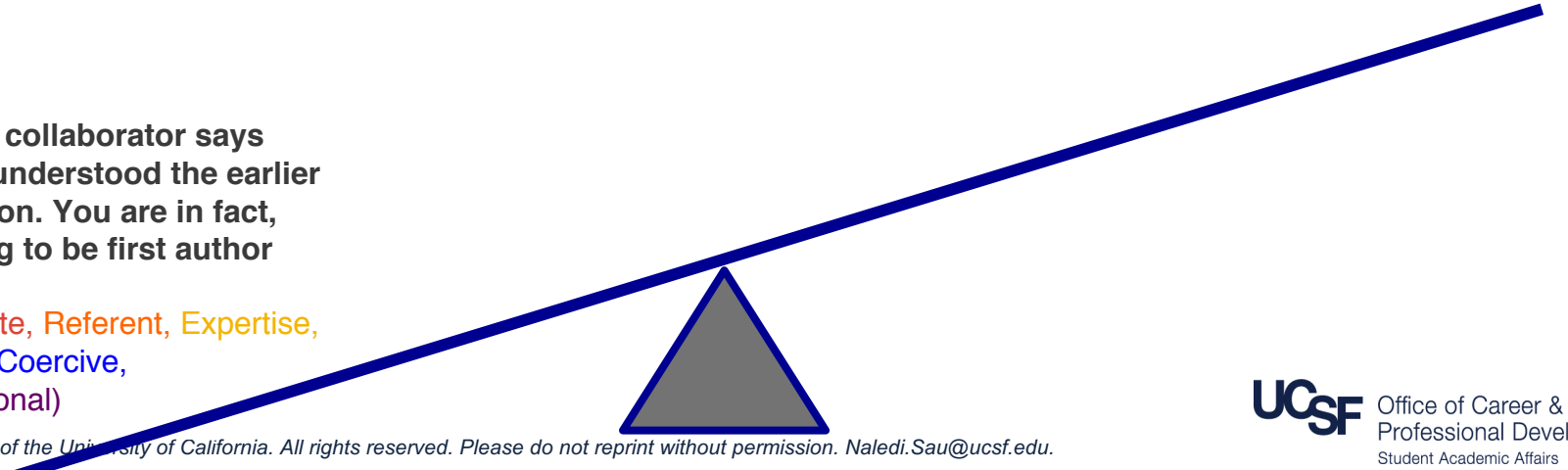

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Senior Scientist

Trainee

Actions to respond	
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You have a mentor who can strategize with out how redirect your research and career on track, no matter what happens (Referent)	2 is better

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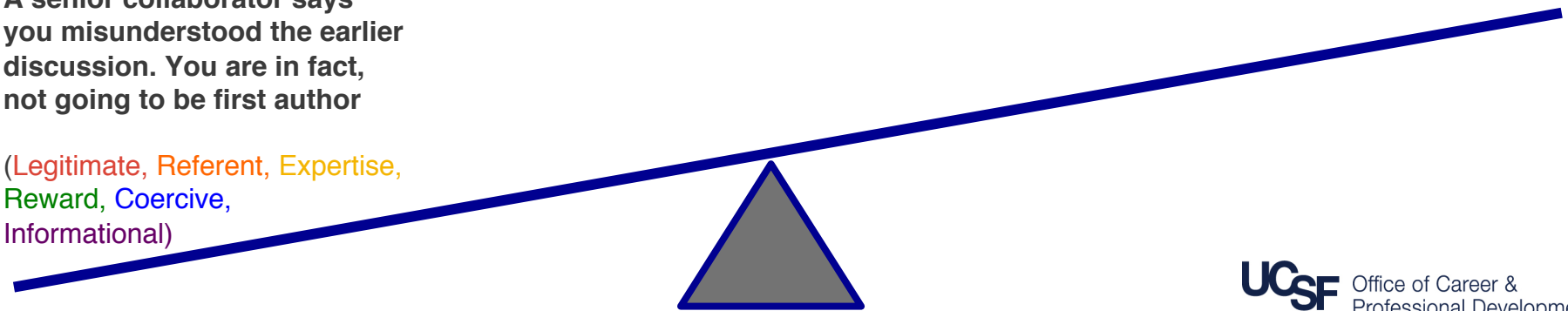

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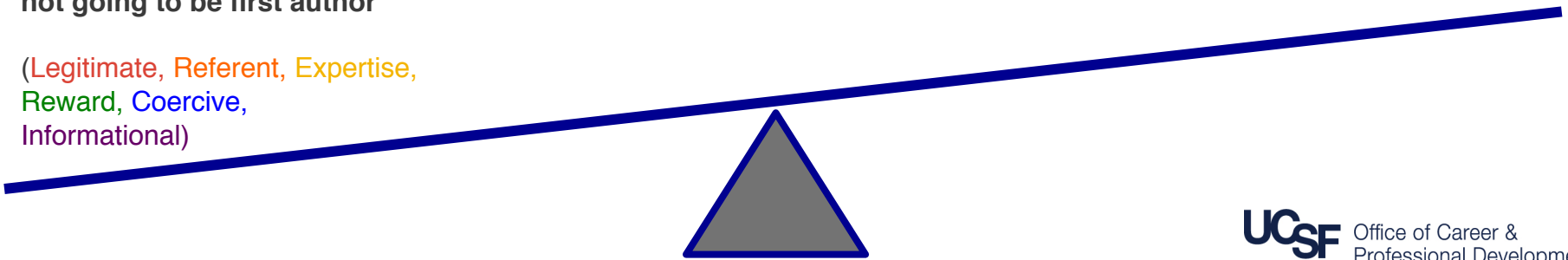
You check in with the Ombuds for a coaching session about how to discuss this further with the senior scientist (Expertise)	3 is great
You are (reward & self funded coercive)	4 is greater 5 is phenomenal



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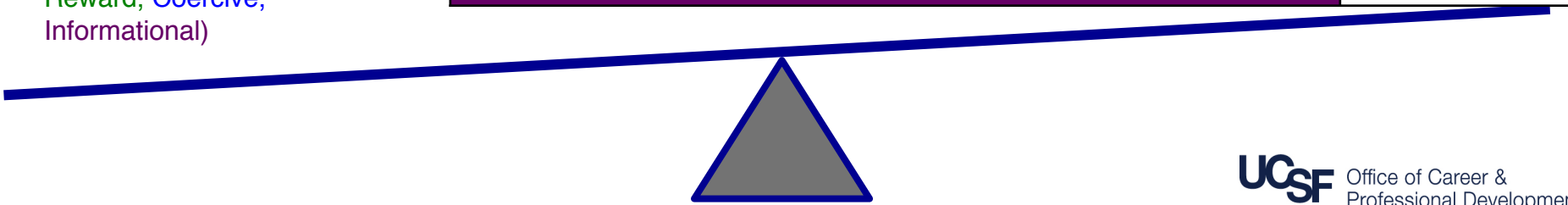
You kept all the correspondence in one folder, and have an earlier email confirming that you would be first author (informational)	6 is even stronger…



Note the difference in the amount of work this involves for the senior scientist vs. a junior scientist. This is the power of power.

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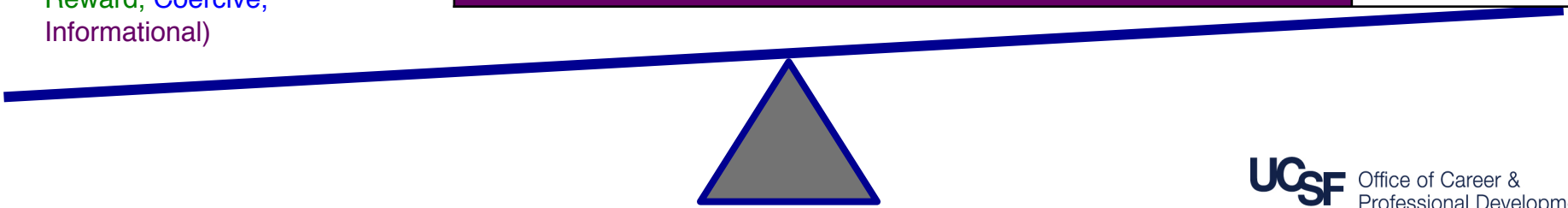

What's Your Strategy?

Take proactive & incremental steps
to neutralize power differentials in collaborations

Senior Scientist

Trainee

Think, Pair, Share:
What one incremental step will you take to change the balance the power dynamic?

1. **Title, Tenure, Reputation** (Legitimate, Referent)
2. **Expertise** (Referent, Expertise)
3. **Resources: funding, contacts, time, attention** (Rewards, Coercive, Informational)
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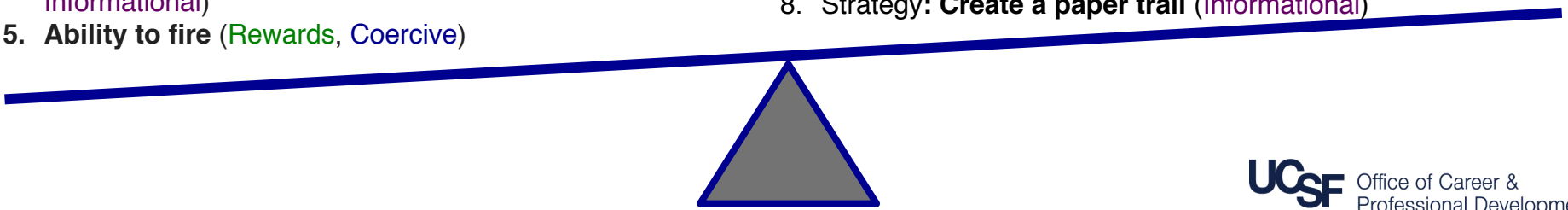

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Agenda: What you need to know

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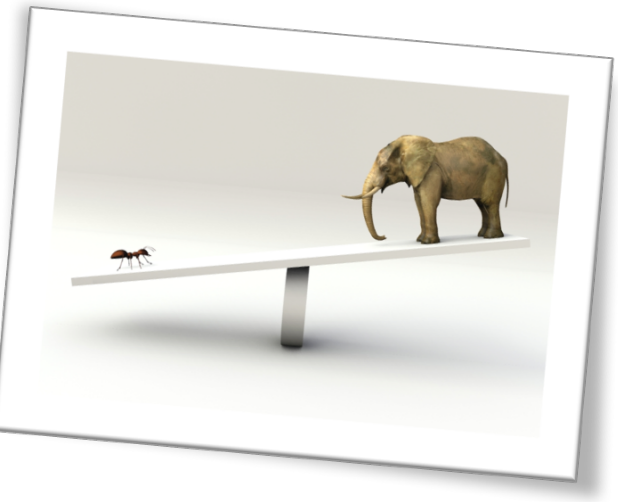


✓ Identified criteria to assess the ‘health’ or functionality of your collaboration

✓ Discussed the impact of power on collaborations and discuss strategies to proactively manage unequal relationships

3. **Recognize red flags in collaborations and know steps to address them skillfully**

What are common red flags in collaborations?

1. **A red flag is a sign something is wrong.**

1. The Science

2. The Project Management

3. The Relationships

What are common red flags in collaborations?

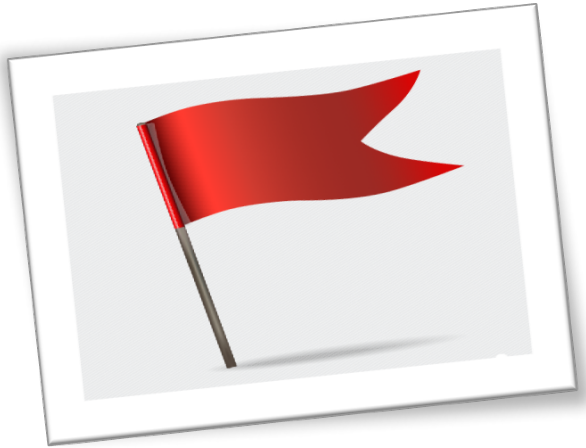
1. **A red flag is a sign something is wrong.**
2. **Many complex things are successfully managed by focusing on the red flags**

Pediatric physiology & disease states

Babies

Physics of an Internal Combustion Engine

Cars



Scientific Collaborations

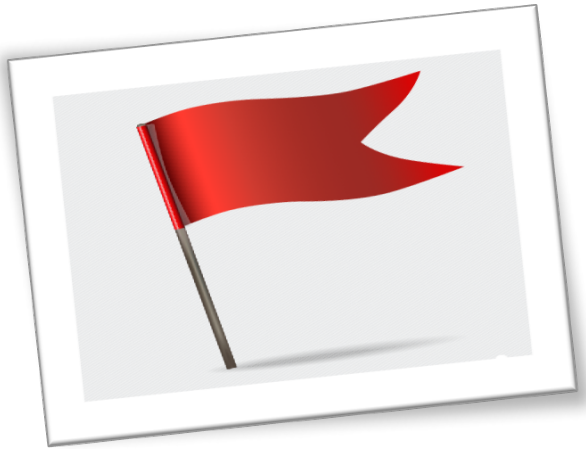
UCSF Office of Career & Professional Development
Student Academic Affairs

What are common red flags in collaborations?

1. A red flag is a sign something is wrong.
2. Many complex things are successfully managed by focusing on the red flags
3. When you see a red flag, time is of the essence & usually involves outside help

Babies

Cars



Scientific Collaborations

UCSF Office of Career & Professional Development
Student Academic Affairs

Red flags students & postdocs should look for in a scientific collaboration

Goals	Roles	Decisions	Processes	Parameters	Values
❑ Collaborators whose goals are in conflict with yours	❑ Collaborators who don't fulfill or operate outside their stated role ❑ Collaborators who seem uninterested or unengaged	❑ Collaborators who change previously agreed-upon decisions, particularly without notice or explanation ❑ Collaborators who avoid making decisions ❑ Collaborators who cannot agree on key decisions (e.g., authorship, journal to publish in, timeline, etc.)	❑ Collaborators who slow down processes (e.g. or sit on your work) ❑ Collaborators who seem to obfuscate or fail to communicate ❑ Collaborators who seem to have a distinctly different communication style than yours	❑ Collaborators who share or modify your work without your permission	❑ Collaborators who demonstrate lack of respect: bullying behaviors, statements that make you uncomfortable, etc. ❑ Collaborators who say untrue things or accuse you of untrue things ❑ Collaborators who repeatedly insist you misunderstood them ❑ Collaborators with whom you feel something is not right

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Trust but verify:
With whom do you check in and check out your red flag?

If any of these appear to be happening, you need to ‘check in’ for verification

Someone
who knows them
(who you believe is safe)

If all three say you're wrong,
you might be wrong

Someone
who knows you
(who you trust)

Someone
who knows about ‘this’ flag
(who you believe is safe)

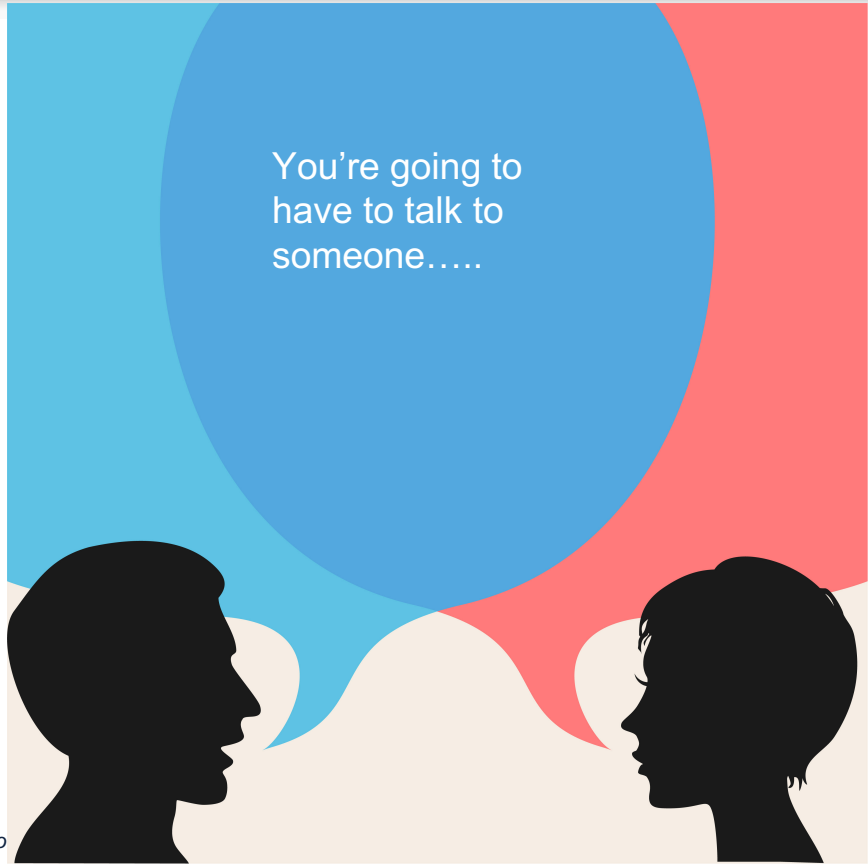
Why not just figure it out yourself?

1. Because the solution will probably be complex
2. Because the solution will be a negotiation over time involving a feedback loop
3. Because you probably won't have the skills or clout to fix the situation
4. Because it's inefficient, and time is of the essence
5. Because you will probably be perplexed, angry and tired at a time when you need to be rational, strategic and focused
6. Because the consequences for you if you get this wrong can be career/life changing
7. Because you don't have to

Mentors, Allies & Unknown Entities, oh my!

Mentors & Allies & Unknown Entities

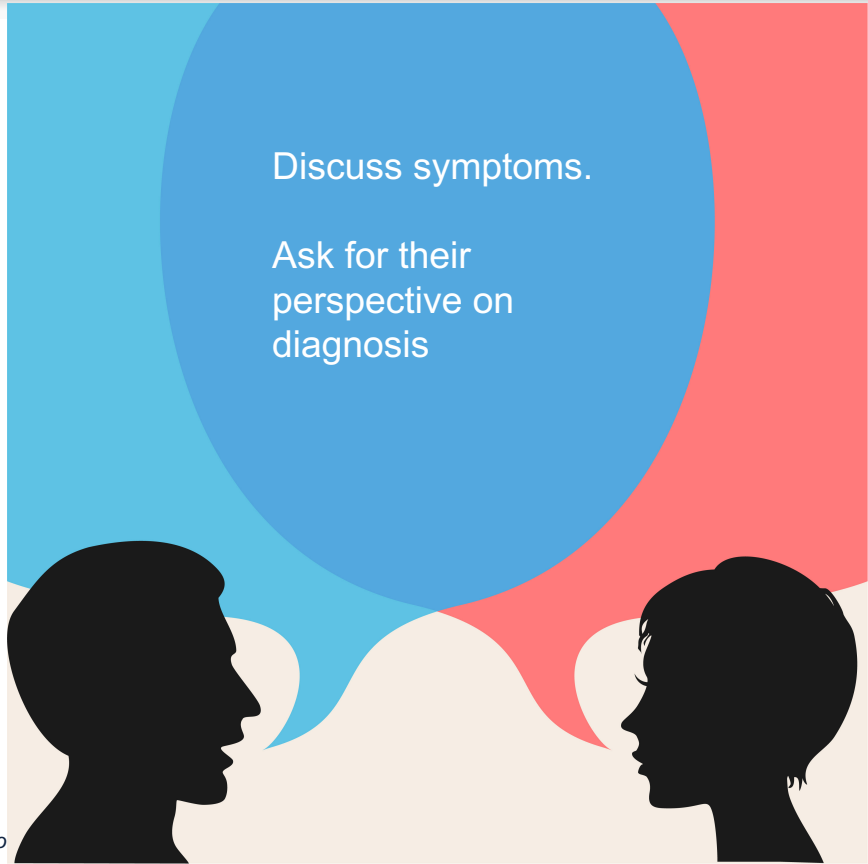
- **Mentors:** Individuals who you have proof have helped your advance your work or your career
- **Allies:** FSAP, Student Health, Ombuds, Care Advocate, Postdoc Union, Office of Postdoc Affairs, etc.
- **Unknown Entities:** Faculty, department chairs, staff, etc…..



Mentors, Allies & Unknown Entities, oh my!

For Mentors & Allies

- Don't tell story chronologically, unless asked to do so. ***Pick themes instead and identify the main issue***
- Rather than accusations, focus on information gathering
- Give them the abstract first: "I realize I'm unfamiliar with the process of deciding who is first author," or "I'd like some advice about how to consider my contribution to a paper that was recently submitted"
- Ask for advice, perspective…particularly how others have handled such situations



Mentors, Allies & Unknown Entities, oh my!

For Mentors & Allies

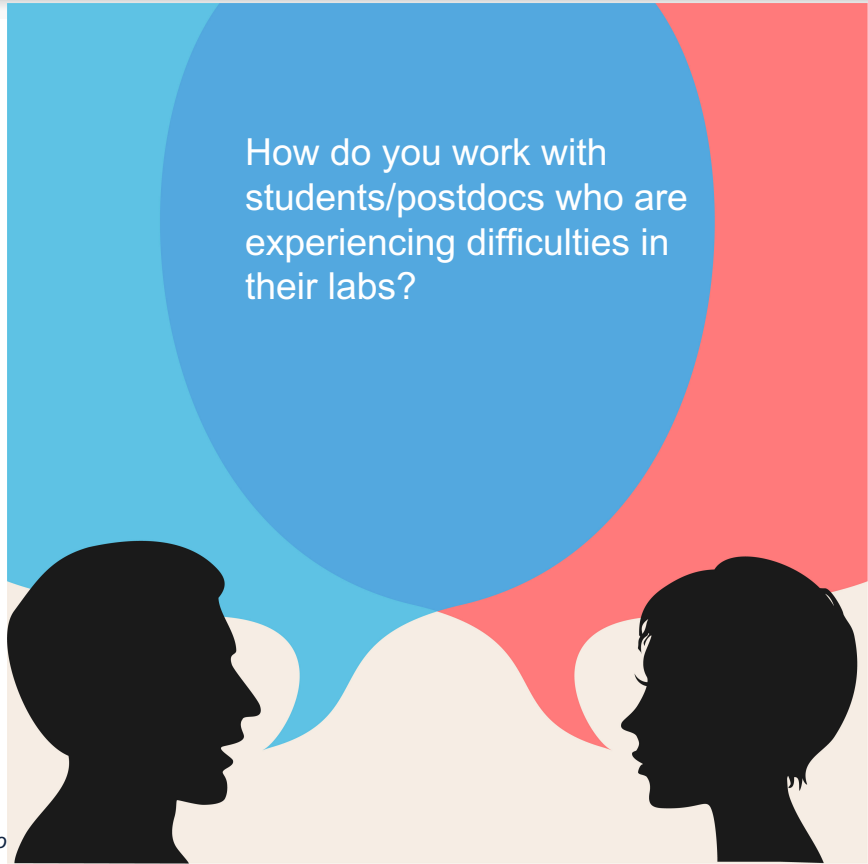
"I'd appreciate your advice about a situation in a collaboration I'm a part of. I've discussed it with my PI, but I would also appreciate an outside perspective. Could we talk for about 15 minutes?"

Mentors, Allies & Unknown Entities, oh my!

For Allies in particular

(Student Health, Faculty Staff Assistance Program, Care Advocate, Ombuds, Postdoc Union, Office of Postdoctoral Scholars, etc.)

It's okay to ask and clarify how they can help you before you disclose



Mentors, Allies & Unknown Entities, oh my!

For Allies in particular

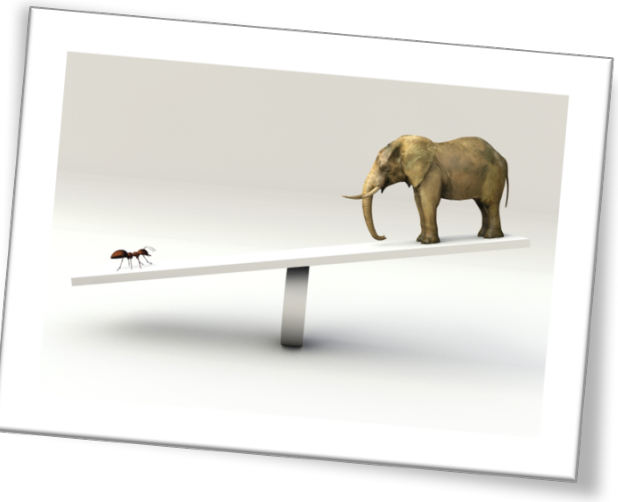
(Student Health, Faculty Staff Assistance Program, Care Advocate, Ombuds, Postdoc Union, Office of Postdoctoral Scholars, etc.)

It's also okay to ask who they are obligated to (or would) share your conversation with.

Mentors, Allies & Unknowns, oh my!

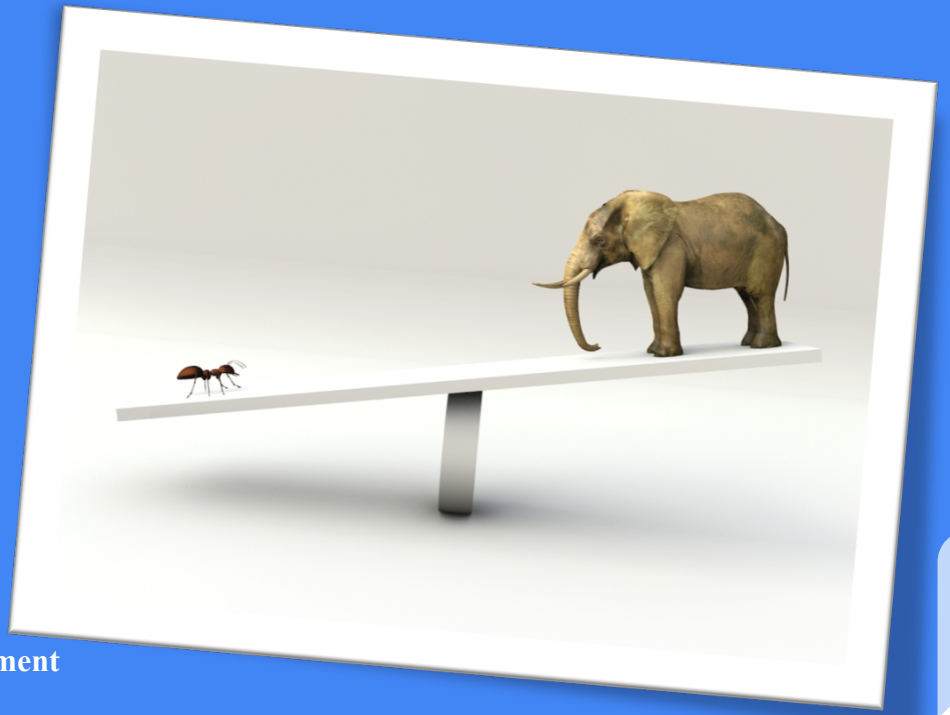
Always go to mentors and allies first.

What we've covered today….



1. **Identified criteria** to assess the 'health' or functionality of your collaboration
2. **Discussed the impact of power** on collaborations and discuss strategies to proactively manage unequal relationships
3. **Helped you to recognize red flags** in collaborations and know steps to address them skillfully

Managing Scientific Collaborations as a Student or Postdoc



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