Individual Development Plan for Predoctoral Trainees in the Plant Biology Graduate Group

This Individual Development Plan (IDP) was created by and for Plant Biology Graduate Group Trainees to help them achieve their career goals as part of the US plant sciences workforce. In the Plant Biology Graduate Program, the IDP will be completed annually, two weeks before the Trainee's thesis committee meeting (or 2 weeks before the end of Spring quarter for Trainees that have not advanced to candidacy). The document is confidential and is to be filed with the program coordinator (Lori Bergum). The program coordinator will check for filing and inform Trainees and Mentors of missing IDPs.

This document is meant to guide and expand upon the UC **Davis Student Progress Assessment (SPA)** that is required annually of all UC Davis graduate students. Questions that exactly match the required annual SPA questions can be found and clearly labeled with the logo below in this document so that answers can be copied and pasted into SPA after completion of the IDP.
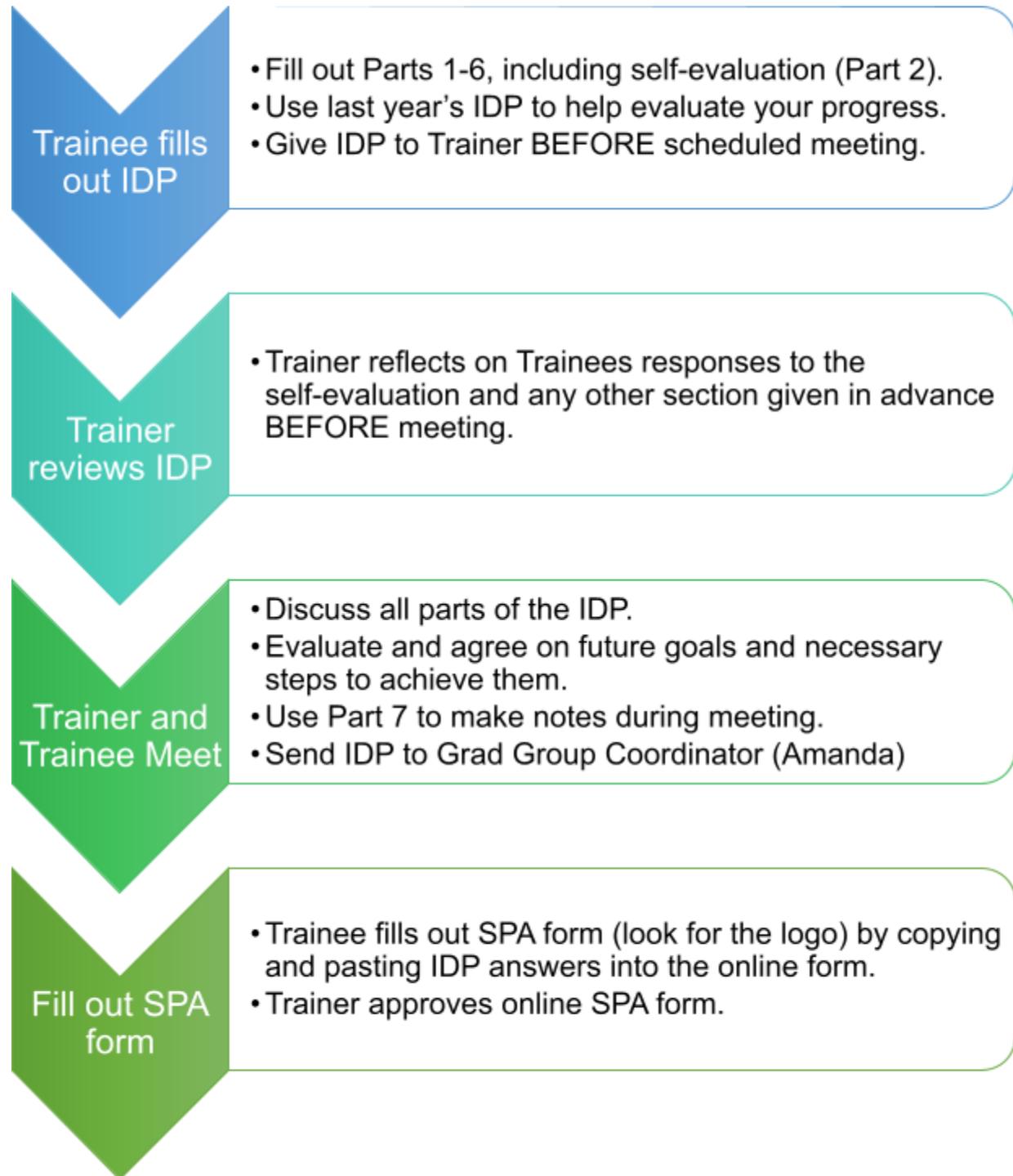

Purpose of the Individual Development Plan:

"A goal without a plan is a wish." - Antoine de Saint-Exupery (1900-1944)

An Individual Development Plan (IDP) for graduate students is an individually - tailored career development tool. An effective IDP should help prioritize, set goals, develop and implement a plan of action, and periodically assess progress. The IDP will be a dynamic, moving document as goals evolve over time. The IDP can also allow graduate students to take ownership of their career, obtain valuable input and feedback from mentors and Training Program leadership, and facilitate better communication between Trainees and their Trainer.

By defining their career goals early on, graduate students are better able to identify and participate in professional development opportunities, such as teaching, exposure to non- academic careers, and training in proposal writing and project management, targeted toward achieving their specific objectives. They are also better able to clarify their career goals and expectations with their advisor, mentor, and/or PI which in turn leads to better communication, better planning, and more successful outcomes.

The IDP Process: An Outline

Trainee fills out IDP
- Fill out Parts 1-6, including self-evaluation (Part 2).
- Use last year's IDP to help evaluate your progress.
- Give IDP to Trainer BEFORE scheduled meeting.

Trainer reviews IDP
- Trainer reflects on Trainees responses to the self-evaluation and any other section given in advance BEFORE meeting.

Trainer and Trainee Meet
- Discuss all parts of the IDP.
- Evaluate and agree on future goals and necessary steps to achieve them.
- Use Part 7 to make notes during meeting.
- Send IDP to Grad Group Coordinator (Amanda)

Fill out SPA form
- Trainee fills out SPA form (look for the logo) by copying and pasting IDP answers into the online form.
- Trainer approves online SPA form.

Meeting scheduled for_____

Trainee will give IDP to Trainer by _____

PART 1: OVERVIEW

Trainee Name: Date:

Trainer's Name:
Additional Trainers (if any):
Thesis/Dissertation Committee Members:
Academic Advisor:

General Questions:
1. How many years have you been in graduate school? _____

2. Have you chosen a dissertation topic? If yes, state the title of your dissertation.

3. Please provide a brief overview of your research project.

4. Who are key UC Davis contacts to reach out to for the following emergencies:

Personal emergency	
Mentor emergency	
Equipment failure	
Mentor problems	

5. Who are your administrative contacts for:

Your funding	
TA paperwork	
PBGG and Grad Studies logistics and forms	Amanda Turner, ahturner@ucdavis.edu

Academic Advisor	

6. Who is your emergency contact (parent, spouse, roommate, etc.):
Contact Name: _____ Contact Relation: _____
Contact Phone: _____

PART 2: SELF EVALUATION

Assess your strengths, weaknesses and skills: Evaluate your skills and abilities in the following areas where:

5 = Highly proficient   1 = Needs improvement

Overall Core Scientific Knowledge	Proficiency				
Broad-based and cross-disciplinary knowledge acquisition	1	2	3	4	5
Detailed knowledge of specific research area	1	2	3	4	5
Knowledge area:	1	2	3	4	5
Knowledge area:	1	2	3	4	5
Laboratory or Bench Skills (e.g., microscopy, plant skills):	Proficiency				
Skill set:	1	2	3	4	5
Skill set:	1	2	3	4	5
Skill set:	1	2	3	4	5
General Research Skills (e.g., designing experiments, creativity):	Proficiency				
Designing experiments	1	2	3	4	5
Analytical skills/data analysis and interpretation	1	2	3	4	5
Statistical and computational analyses	1	2	3	4	5
Problem solving/troubleshooting	1	2	3	4	5
Creativity/developing new research directions	1	2	3	4	5
Independence/Being productive in an unstructured environment	1	2	3	4	5
Critical evaluation of research-area literature	1	2	3	4	5
Other (define):	1	2	3	4	5
Professional Skills:	Proficiency				
Oral presentation	1	2	3	4	5
Fellowship/grant writing	1	2	3	4	5
Manuscript writing	1	2	3	4	5
Communicating science to a nonspecialist audience	1	2	3	4	5

Teaching (TA or mentoring students in the lab)	1	2	3	4	5
English language proficiency	1	2	3	4	5
Other (define):	1	2	3	4	5
Leadership and Management Skills:	Proficiency				
Leading and motivating others	1	2	3	4	5
Delegating; providing instruction	1	2	3	4	5
Managing projects and time	1	2	3	4	5
Organizational skills	1	2	3	4	5
Setting goals and monitoring results	1	2	3	4	5
Interpersonal Skills:	Proficiency				
Getting along with others	1	2	3	4	5
Approaching difficult conversations (conflict resolution)	1	2	3	4	5
Being able to give/receive constructive feedback	1	2	3	4	5
Upholding commitments/deadlines	1	2	3	4	5
Networking/meeting new colleagues	1	2	3	4	5
Active and constructive communication with trainer	1	2	3	4	5

PART 3: ANNUAL PROGRESS REPORT

This question is identical to the SPA; you can copy and paste your answers.

SPA

1. What are the projects you accomplished last year? Include any of the following: fieldwork, publications, outreach, presentations, new techniques or expertise acquired, abstracts submitted, grants or fellowship applications, or other relevant projects. (SPA has 2000 character limit for this question.)

2. Describe and explain your level of satisfaction with your research progress in the past year:

3. Describe and explain your level of satisfaction with other aspects of your career development in the past year:

PART 4: CAREER DEVELOPMENT

Reflect on and assess progress towards future career aspirations. To learn more about potential career paths, you can complete the exercises at myIDP.sciencecareers.org, which will then provide a list of 20 scientific career paths with a prediction of which ones best fit your skills and interests. Additional information can be found on the *Resources* page of this document.

1. What are your current careers of interest and why?

The following question is in the SPA; you can copy and paste your answer.

2. List academic and professional development programs attended in past year. Include conferences, seminars, workshops, job fairs, internships, etc. (SPA has 2000 character limit for this question.)

    List academic and professional development programs planned for upcoming year. Include conferences, seminars, workshops, job fairs, internships, etc. (SPA has 600 character limit for this question.)

3. What guidance or help can your Trainer provide for development and exploration of your career options?

4. What additional help do you need for finding professional or personal development resources?

5. Are there any factors that you are concerned may negatively affect your progress?

6. What have you found most beneficial of the mentoring you have received? Is there anything that would improve the mentoring you receive?

7. Your success as a student is tightly linked to your wellness. What are you doing to maintain this?

PART 5: GOAL PLANNING

"Goals" column can be copied to SPA's "Goals and Expectations for the Upcoming Year." (SPA has 2000 character limit for this question.)

Research Project				
Goals	**Objectives**	**Actions and Strategies**	**Timeline**	**Outcomes**
(scientific question)	(what skills need to be learned or developed)	(experimental approach)	(anticipated start and end times)	(how you will know you have reached your goal)

Professional, Outreach, Management Skills				
(areas for improvement)	(what aspects need to be learned/developed)	(outreach activities, conferences and networking events, courses to TA, etc.)	(anticipated start and end times)	(how you will know you have reached your goal)

Oral and Written Communication

(areas for improvement)	(what aspects need to be learned/developed)	(presentations, mentorship opportunities, articles to write, etc.)	(anticipated start and end times)	(how you will know you have reached your goal)

Optional Other goal setting

(areas for improvement)	(what aspects need to be learned/developed)	(outreach activities, conferences and networking events, courses to TA, etc.)	(anticipated start and end times)	(how you will know you have reached your goal)
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For planning manuscripts, proposals, and other writing, see the Goal Planning Appendix.

PART 5b: COVID-19 Affects

The COVID-19 pandemic affected the world and individuals all in many ways. Take a moment and consider the following ways that the COVID-19 campus shutdown affected your graduate career.

How was your research and productivity impacted?

How was your professional development affected? In what ways did you continue to work on your professional development?

How did it affect your career plans? Have they changed?

Did the campus shutdown change your graduation timeline?

How did the shutdown impact your wellbeing?

What are the hurdles you encounter as campus transitions through its "ramp up" stages?

Consider the financial implication as you move on to the next section.

PART 6: FUNDING

How were you supported in the past year, and how do you plan to be supported in future years? Consider how are meetings expected to be supported. **This information goes into your SPA (600 character limit).** Add all that apply:

- TA (Course Number)
- GSR
- Reader (Course number)
- Internal Fellowship (Name)
- External Fellowship (Name)

		Method of Support	Notes (course, fellowship name, etc.)	% appointment
Current Year	Fall			
	Winter			
	Spring			
Next Year	Fall			
	Winter			
	Spring			
2 Years From Now				
3 Years From Now				

PART 7: MEETING

Discuss each section of your IDP with your trainer and get feedback. Add notes as needed.

	Feedback and Discussion:
Part 1: Overview	
Part 2: Evaluation	
Part 3: Review	
Part 4: Career Development	
Part 5: Goal Planning	
Part 6: Future funding	

Trainee Name:_____ Trainee Signature: _____ Date:_____

Trainer Name:_____ Trainer Signature: _____Date:_____

RESOURCES

Professional Development

IDPs (including those adapted for this document):
- Stanford Biosciences IDP and additional resources:
  https://biosciences.stanford.edu/current/idp/
- UW-Madison IDP and additional resources: https://grad.wisc.edu/pd/idp/
- Case Western Reserve School of Medicine:
  http://casemed.case.edu/gradprog/resources/IDP_begley.pdf
- Vanderbilt School of Medicine:
  https://medschool.vanderbilt.edu/bret/individual-development-plansidps

AAAS myIDP
- Articles about career and professional development from AAAS:
  http://www.sciencemag.org/tags/myidp
- myIDP: http://myidp.sciencecareers.org/

Career Exploration and Planning
- Plantae (initiative from ASPB and Global Plant Council) career resources:
  https://plantae.org/careers/
- GradPathways (UCD): https://grad.ucdavis.edu/professional-development/gradpathways
- Internship and Career Center (ICC, UCD): https://icc.ucdavis.edu/mpp/index.htm

Mentorship

PBGG 2021-2022 Mentoring Committee: Georgia Drakakaki, Luca Comai, Mary Francis LaPorte, Anna Cowie, Barbara Blanco-Ulate
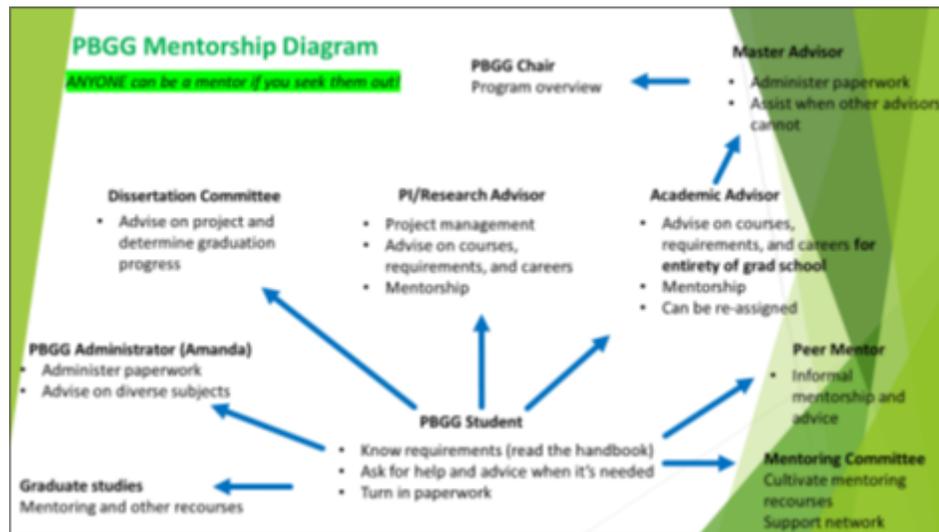
***Master Advisor*:** Luca Comai

"Taking Ownership Of Your Own Mentoring," M.J. Glessmer
http://mirjamglessmer.com/publications-for-practitioners/taking-ownership-of-your-own-mentoring/
- "*Nature*'s guide for mentors," A. Lee, C. Dennis, and P. Campbell
  http://www.nature.com/nature/journal/v447/n7146/full/447791a.html
- UW Graduate School Mentoring Guides:
  http://grad.uw.edu/for-students-and-post-docs/core-programs/mentoring/mentoring-guides-for-students/
- Stanford Biosciences Mentoring Resources:
  https://biosciences.stanford.edu/current/advising/get-mentoring-you-need.html

PBGG Mentorship Diagram

ANYONE can be a mentor if you seek them out!

PBGG Chair
Program overview

Master Advisor
- Administer paperwork
- Assist when other advisors cannot

Dissertation Committee
- Advise on project and determine graduation progress

PI/Research Advisor
- Project management
- Advise on courses, requirements, and careers
- Mentorship

Academic Advisor
- Advise on courses, requirements, and careers for entirety of grad school
- Mentorship
- Can be re-assigned

PBGG Administrator (Amanda)
- Administer paperwork
- Advise on diverse subjects

Peer Mentor
- Informal mentorship and advice

PBGG Student
- Know requirements (read the handbook)
- Ask for help and advice when it's needed
- Turn in paperwork

Graduate studies
Mentoring and other recourses

Mentoring Committee
Cultivate mentoring recourses
Support network

Mental Health and Wellness

- *Wellness Services*
- https://shcs.ucdavis.edu/wellness
- https://grad.ucdavis.edu/resources/help-and-support
- UCD Counseling Services:
  https://grad.ucdavis.edu/current-students/mental-health-counseling-services
- AAAS article, "PhD students face significant mental health challenges":
  http://www.sciencemag.org/careers/2017/04/phd-students-face-significant-mental-health-challenges

COVID-19 and DEI

- ***COVID-19 Resources***
- Student Affairs: https://studentaffairs.ucdavis.edu/news/coronavirus-faqs
- Campus Updates: https://www.ucdavis.edu/coronavirus/
- Diversity, Equity, and Inclusion Resources: https://diversity.ucdavis.edu/coronavirus-resources
- ***Diversity, Equity, and Inclusion Page***
- https://diversity.ucdavis.edu/

Appendix (OPTIONAL): Manuscript, Grant, and Other Writing:

Use this space to explicitly set goals for writing manuscripts, grants, and other projects (including proposals, fellowship applications, etc.) in the next year. What elements do you plan to complete and when?

Manuscript Title	Element (abstract, introduction, methods etc.)	Timeframe