



University of California  
San Francisco

# Effective Strategies for IDPs

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Bill Lindstaedt, MS

Assistant Vice Chancellor

Career Advancement, International and Postdoctoral Scholars

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University of California  
San Francisco

# Effective Strategies for IDPs

Bill Lindstaedt, MS  
Assistant Vice Chancellor  
Career Advancement, International and Postdoctoral Scholars

5/26/20

# Concerns you may have

- We're "required" to do these IDP things. How do I make IDP's a more useful process for my lab and for individual students?
- How can IDP's fix the problem of mismatched expectations?
  - My students have unreasonable expectations of their research capabilities and of me.
  - How do I use IDP's to set clearer, shared expectations for research progress?
- How do I talk to my students who want to move into non-academic careers? I don't know how to help them.
- How do I adapt IDP practices to support my trainees and enhance productivity and engagement, during COVID when access to lab is diminished or not possible?

# Learning objectives

By the end of this workshop, participants will

- Know the components of an effective IDP and why the components are important
- Learn about skills needed to guide the IDP conversation, including helping trainees set achievable yet ambitious goals
- Begin to make plans for how to adapt the IDP process to COVID-era challenges

# Outline

The IDP itself – process

The IDP itself – product

The IDP conversation

Skill-building scenario

Considering “Individual COVID Plans” (ICP’s)

# What is an Individual Development Plan?

- Tool to facilitate a planning conversation between trainee and mentor
- Purpose is to promote research/academic progress and planning to achieve career goals
- Should answer the questions
  - Where am I headed with my professional development?
  - What milestones/progress do I need to achieve in my research?
  - What steps must I take during the IDP period to get there?
  - How will I involve the help of my mentors to get there?

# What is an Individual Development Plan?

- IDP is a **product** and a **process**
- **Product** should be a set of goals written by the trainee and mapped to a timeline, brought to the IDP meeting with their mentor
- **Process** to create the IDP product includes four phases



# The IDP itself – process

# 4 Phases of the IDP Process

1. Assessment (trainee)



2. Career and Professional Considerations (trainee)

2. Career and Professional Considerations (trainee)

3. Goal setting (trainee)



4. Implementation (trainee and mentor)

4. Implementation (trainee and mentor)

# 4 Phases of the IDP Process

## 1. **Assessment**

- **Personal/professional:** Skills, interests, values
- **Achievements,** incl progress made on past goals

# 4 Phases of the IDP Process

## 1. Assessment

- **Personal/professional:** Skills, interests, values
- **Achievements,** incl progress made on past goals



## 2. Career and Professional Considerations

- Do I know my career options?
- Do I have a confident plan for what I'm doing when I finish at UCSF?
- Do I have the transitional experience to achieve my next career step?

# 4 Phases of the IDP Process

## 1. Assessment

- **Personal/professional:** Skills, interests, values
- **Achievements**, incl progress made on past goals



## 2. Career and Professional Considerations

- Do I know my career options?
- Do I have a confident plan for what I'm doing when I finish at UCSF?
- Do I have the transitional experience to achieve my next career step?

## 3. Goal setting

- Major milestones for my research and academic progress
- What will I do to move my career plans forward?
- What skills do I need to build for my current and future work
- Goals and steps mapped to a timeline



# 4 Phases of the IDP Process

## 1. Assessment

- **Inward:** Skills, interests, values
- **Backward:** Achievements, progress made on past goals



## 2. Career and Professional Considerations

- Do I know my career options?
- Am I confident about my post-training path?
- Do I have the transitional experience to achieve my next career step?



## 3. Goal setting

- Major milestones for my research and academic progress
- What will I do to move my career plans forward?
- What skills do I need to build for my current and future work
- Goals and steps mapped to a timeline



## 4. Implementation

- Meet with mentor(s)
- Discuss and revise **goals** with input from mentors
- Work with mentors to achieve goals and steps on time
- Repeat steps 1-4 at least annually

# The IDP Product

- This is what the student brings to their IDP conversation with you
- Outcome of Phases 1-3
  - Assessment/Achievements
  - Career and Professional Considerations
  - Goal Setting
- No right way to create the IDP product, no best format
- Some mentors prefer to see only the Achievements (Phase 1) and Goals (Phase 3) before the IDP conversation

# IDP models -

## 1. Five-prompts model

- What did you say you were going to do?
- What did you do?
- What are you going to do in lab in the next year?
- Where are you headed when you finish?
- What are you going to do this year to get there, is that reasonable, and how can I help you?

Student writes out responses in preparation for annual meeting, and questions guide the conversation.



# IDP models

## 2. Angela DePace (Harvard) model

### **Student and mentor both free-write**

- Accomplishments for past year
- Research goals for coming year
- Professional and Personal Goals for coming year
- Feedback for student/Feedback for mentor
- Monthly planning calendar

June 2015

Name & date

GOALS and PLANNING  
FROM JANE

Accomplishments (from previous timeframe)

Published paper  
Drafted main paper including new experiments  
Genome editing experiment in progress  
Wrote NSF research plan; funded!  
Followup transgenics in progress  
Tried CRISPRi - took to troubleshoot  
Coff poster  
Fly meeting abstract submitted  
Research Goals (for upcoming timeframe)

Supervised George - expt in evolution paper  
Supervised Ringo - sufficiency experiment  
Supervised Paul - cofactor screen + followup  
Talks at recruitment and retreat  
Organized group meeting and journal club  
Scheduled DAC # 3

From Angela - expts on  
defining regulators

Continue rescue experiment w/ genome editing  
Measure followup constructs  
cis/trans experiments for bifunctionality project

} high priority

Continue to support CRISPRi  
Followup on cofactor screen

} low priority

From Angela -

- Think about kinetic synergy angle for second project
- Incorporate some followup in cell culture/bioinformatics

Professional & Personal Goals (for upcoming timeframe)

Apply for communication award  
Submit main paper (think about where)  
DAC # 3  
Present at a national meeting  
Outline cofactor screen project  
Start thinking about postdoc labs  
Department talk?  
Graduate late 2016

From Angela -

- If undergraduate-focused teaching + research is goal, think about system cost in postdoc lab
- Contact intofor colleagues who have focused on undergraduate education.

Feedback TO ANGELA

New system has really helped with communication with you and others in lab  
As always, you provide excellent support both scientifically and personally and help us develop as well-rounded scientists! 😊

Writing the NSF grant was a great experience! 3-person team writing is a good template for the future.

We've gotten better at setting appropriate expectations for rotation students.  
Lack of clear timetables on paper drafts have been a source of frustration for a couple lab members

I've mentored 7 people in 3 years and often feel like the only person with rotation projects in place.

Written goals from  
trainee Jane

- Accomplishments
- Research Goals
- Professional/Career Goals
- Personal goals

Written goals from trainee Jane

- Accomplishments
- Research Goals
- Professional/Career Goals
- Personal goals

GOALS and PLANNING  
FROM JANE

June 2015  
Name & date

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Feedback from PI Angela about Jane's goals, prior to IDP conversation with Jane



Jane Smith 2015

Name & date

GOALS and PLANNING

January

↑ - GRANT CONSTRUCT CLONING -

February

↑ - REDO COMPUTATIONAL ANALYSIS

March

FLY MEETING - poster, look @ postdoc labs  
DAC

April

SUBMIT PAPER #1?

May

June

SEND IN REVISION OF R01

July

↑ DATA COLLECTION ON TF CONSTRUCTS

August

September

October

DAC?

↑ SUBMIT PAPER REVISION  
DECIDE WHERE TO APPLY FOR POSTDOCS  
OUTLINE THESIS.

# IDP models

## 3. Structured, step-wise models –

UCSF [MAP \(my annual plan\)](#)

myIDP [myIDP.ScienceCareers.org](http://myIDP.ScienceCareers.org)

*Recommend myIDP usage with instruction*

UMassMed [Stage 2 IDP](#)

Thematic format or Chronological format

## My Annual Plan (MAP) for UCSF Graduate Students

This MAP is an annual planning tool to help you identify short- and long-term goals to help you make timely progress through your degree program and achieve your career objectives.

### Purpose

- To identify short-term goals in making timely progress toward completion of your degree.
- To identify long-term career goals and the steps necessary to meet those goals.
- To facilitate ongoing guidance conversations between you and your faculty adviser.

### Outline of the MAP process

1. **Look Back:** Review your progress in terms of research and professional training in the past year.
  - List accomplishments of the previous year and how they have helped you to make progress toward your goals.
  - Update and attach your CV. It's good to maintain a current CV for yourself (to apply for funding, internship, and/or job opportunities) and for distribution to faculty and others who might write letters of recommendation for you.
2. **Look Ahead:** Set goals for the next year.
  - Describe your career objective and re-visit it annually. It's okay if your career goals change as you advance through the program.
  - Set goals for projects within your degree program during the next year.
  - Set goals for progress toward your career objective.
  - Prioritize your goals and create a timeline for reaching them.
3. **Implement your MAP**
  - Meet with your adviser and/or thesis committee to discuss your MAP.
  - Revise, if necessary, based on this conversation.

### Progress Review: Research and professional training in the past year

- Describe your thesis project in one paragraph.
- Who are your primary research mentors? Are there other faculty with whom you would like to make connections, at UCSF or at other institutions?
- New areas of research or technical skills acquired in the past year
- Seminar presentations (title, department, where seminars was given, audience)

### ***Progress Review - continued***

- National or other professional meetings attended (indicate meeting title, oral or poster presentation)
- Funding (include fellowships and grants written/applied for/received, professional society presentation awards or travel awards, etc.)
- Publications
- What career exploration events or career preparation workshops did you attend?
- How successfully did you meet last year's goals? Are there any top-priority goals that you didn't meet? Why?
- At this point, what month and year do you expect to finish your degree?

### **Set goals and make plans for the upcoming year**

1. Research project and progress toward the PhD
  - Courses to take.
  - Research methods or technical skills to learn.
  - Plans for conducting your dissertation research this year (e.g., literature review, design of experiments, data analysis).
  - How will you write up and present your findings?
  - Grants, fellowships, or other funding opportunities to apply for?
  - Plans to attend any professional/scientific meetings and/or workshops? Plans to present a paper or poster.
2. Professional goals and career planning
  - Describe your current career goal(s).
  - What career exploration events or workshops will you attend this coming year?
  - Are you interested in doing an internship? If so, in what employment sector? How will you seek out such an opportunity?
  - Are you interested in doing any teaching? If so, in what capacity? How will you find teaching opportunities?
3. Create a month-by-month timeline for the next 12 months, taking into consideration time management for setting realistic targets for reaching research project and career goals.



### Overview

- Overview Summary
- Personal Information

### Assessment

- Skills Assessment
- Interests Assessment
- Values Assessment

### Career Exploration

- Consider Career Fit
- Read About Careers
- Attend Events
- Talk to People
- Choose a Career Path

### Set Goals

- Career Advancement Goals
- Skill Goals
- Project Goals

### Implement Plan

- Mentoring Team
- myIDP Summary
- Completion Certificate

## Skills Development Goals

Previous

Quick Tips

My Skills to Improve

My SMART Goals

Choose the skills areas that you want to work on improving this year. We recommend choosing 2-5 skills areas on this page.

### Scientific Knowledge

Improve	Skill Area	Your Score
<input checked="" type="checkbox"/>	Broad based knowledge of science	2
<input type="checkbox"/>	Deep knowledge of my specific research area	n/a
<input type="checkbox"/>	Critical evaluation of scientific literature	4

### Research Skills

Improve	Skill Area	Your Score
<input checked="" type="checkbox"/>	Technical skills related to my specific research area	3
<input checked="" type="checkbox"/>	Experimental design	n/a
<input checked="" type="checkbox"/>	Statistical analysis	2
<input type="checkbox"/>	Interpretation of data	4
<input type="checkbox"/>	Creativity/innovative thinking	4
<input type="checkbox"/>	Navigating the peer review process	3

### Communication

Improve	Skill Area	Your Score
<input type="checkbox"/>	Basic writing and editing	5
<input checked="" type="checkbox"/>	Writing scientific publications	3
<input type="checkbox"/>	Writing grant proposals	3
<input type="checkbox"/>	Writing for nonscientists	5
<input type="checkbox"/>	Speaking clearly and effectively	5



## Personal Information

*Title:* Graduate student  
*Institution:* UCSF  
*Position start date:* 9/1/2011  
*Position end date:* 12/22/2015  
*Research project:* The role of hydrogen bonding in enzyme catalysis  
  
*IDP last modified:* 5/18/2018

## Career Plans Summary

### Plan A

*Long Term Goal:* Writer for a journal news section  
*Short Term Goal:* Science communication certificate (UC Santa Cruz); or freelance writer?

### Plan B

*Long Term Goal:* Teaching at a community college  
*Short Term Goal:* more teaching experience

## SMART Goal Summary

*Note: goals after 12 months from now are not shown.*

### January, 2015

- Take a class in scientific leadership
- nrshyrs
- Schedule thesis committee meeting
- take a test

### February, 2015

- Read textbook on stats, and do practice problems
- Complete analyses of Protein A
- nrshyrs
- Schedule thesis committee meeting
- take a test

### March, 2015

# UMassMed [Stage 2 IDP](#)

## Thematic IDP

In this format, the IDP is organized by theme (broad goal Jess aims to achieve). Each broad goal has a set of SMART goals associated with it. This is an intuitive way to initially draft your IDP.

**Jess McIverson**

**October 30, 2014**

**Career goal Plan A:** PI in academia with a focus on research

**Career goal Plan B:** Scientist in industry

### **PROJECTS: (research checkpoints)**

#### **Collect data and analyze AB-Complex x-ray structure**

- By end of November – Collected data (done!)
- By end of December – solve crystal structure
- By mid-February – list significant findings from structure, including questions we had previously defined. Align with and compare to previously solved structures. Mock up figures for future paper. Based on structural findings, design mutants for follow-up experiments to verify new hypotheses.
- March – Do kinetics assays on mutants

#### **Write and submit paper about 2014 kinetics work**

- December – draft Materials & Methods section, figures
- January – draft results, discussion, introduction; work with PI on revisions
- February – submit paper

#### **Continue kinetics experiments for Mutant A (collaboration with Yu)**

- Next week – discuss publication plan with my thesis advisor, Dr. Yu, and other co-authors (authorship, timeline, etc.)
- By end of December – complete experiments

#### **Attend Gordon Research Conference on Computer Aided Drug Design (July 1-4, 2015); try to present at corresponding Gordon Research Seminar for trainees**

- December - Apply to meeting (GRC and GRS)
- February - update abstract based on research results
- March - if do not get accepted to GRC, then apply to September conference
- June - draft poster (and prepare talk?)

## **SKILLS DEVELOPMENT:**

### **Broad-based knowledge**

- Jan – June – Meet once per month with Jing and Jessica (classmates from other research fields) for an informal journal club with format suggested by Dr. X in my department: one person selects paper, everyone discusses (no single presenter to ensure that everyone has read the paper; also brings out different perspectives and interests from our different scientific backgrounds)
- Mar – Checkpoint to assess whether the journal club format is working for me personally as well as Jing & Jessica; decide whether to continue and/or alter format as needed
- *Monthly* – attend at least two seminars per month that are not directly related to my own specific field

### **Crystallographic skills (data collection and analysis)**

- November-December – read HKL Manual and textbook suggested by labmates, research advisor, and TRAC
- December – Meet with Dr. Yu and my research advisor (together) to jointly review my data after it is processed. Check in with Dr. Yu and my research advisor periodically as I solve and refine structure. (Dr. Yu agreed that this is a good approach, since my research advisor and labmates have less experience with solving crystal structures)

### **Presenting research to scientists outside my field**

- Give 2 practice talks prior to each presentation I give this year (chalk talk for department, Gordon conference): 1 practice talk to lab mates plus research advisor, 1 practice talk to a small group of classmates/postdocs in other labs (outside our specific field); in addition to general feedback on the talk, ask for explicit feedback on whether the content is clear for an audience outside my specific field
  - Before practice talk - Talk to my research advisor about how she modifies her talks based on the background of the audience she is presenting to.
  - April – chalk talk practice talks
  - June – Gordon Research Conference practice talks

**CAREER ADVANCEMENT:**

**In general:** update my CV (next week)

***For career path: PI in academia***

- Present at national conference (see GRC conference goals, above)
- Develop broad-based knowledge / making connections between my work and other fields (see SKILLS above)

***For career path: discovery scientist in industry***

**Learn more about industry trends**

- December-April: Subscribe to BioWorld and read at least one article each week (weekends).
- Monthly: attend an E-Club event monthly
- ACCOUNTABILITY PLAN: have lunch with Amber and David every Thursday and compare notes about what we have heard about industry (at least 15 minutes during meal; we each contribute one update). Assess in February whether this is working for me.

**MISCELLANEOUS GOALS:**

March: assess how this plan is going. Check in with mentors as needed.

June: schedule Fall TRAC meeting

# The IDP Conversation

# The IDP Conversation

- What the IDP process does is ask the faculty/mentor to engage in a **periodic, open minded, structured conversation** about career plans and progress with each of their trainees
- How can the faculty/mentor help ensure these discussions are positive and productive?

# Is it worth it?

## Sigma Xi Postdoctoral Survey

- 、 7,600 postdocs nationwide

*What variables are correlated with positive outcomes such as... ?*

- ◆ Satisfaction
- ◆ Best advisor relations
- ◆ Least lab conflicts
- ◆ Most productivity

\*Study by Geoff Davis, Sigma Xi

“Improving the Postdoctoral Experience: An empirical approach”, 2005

# Is it worth it?

## Sigma Xi Postdoctoral Survey

Greatest Impact on Postdoc Satisfaction/Success?  
Having a written plan

- Postdocs who wrote research/career plans at the start of their appointments were 23% more productive than those who did not
  - 30% more first-authored papers
  - 25% more grant proposals
- Higher satisfaction scores
- Higher advisor ratings



# Suggestions for productive IDP discussions

- Trainee creates the IDP “product”
- PI initiates the conversation
- Clearly communicate the IDP format your lab will use
  - It’s the trainees’s IDP, but they will take it more seriously if you set a lab standard for the IDP format. However, be flexible for student’s style.
  - Lab standard/expectation but needs to be helpful for student
  - Students may push back (stressful), doesn’t mean it’s not valuable
- Clearly communicate the structure/timing of the discussions, timing should be regular
  - IDPs discussed between PI and each trainee at annual retreat?
  - Annually based on trainees’ start dates?
  - Frequency based on trainees needs/style, and PI’s needs/style?

# Suggestions for productive IDP discussions

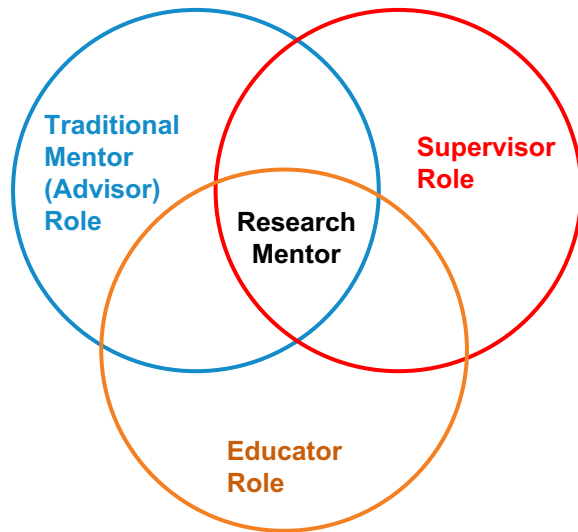
- Talk to trainees about career planning/IDP's early, particularly with postdocs
  - Setting the tone and expectations around what postdocs can take with them avoids later problems
  - Asking early questions about career goals helps create understanding about when/how trainees should leave the lab when moving to non-academic jobs
  - May not need to help with career specifics; goal is to maximize trainee's success and efficiency while also contributing optimally to the lab
  - Making IDP conversations regular and universal cements in trainees' minds that the PI is a partner in their success\*




From [TRAIN-UP](#), course for students and postdocs who mentor other trainees:

## The challenge for every PI: *Balancing multiple mentoring roles*

- Your PI is a special kind of mentor: a Research Mentor (A *super* mentor, combining advising, educational and supervisory tasks)
- PIs sometimes experience role conflict between the differing goals and trainee expectations for each role when they need to:
  - 1) make decisions, 2) communicate, 3) manage change, and 4) handle conflict

### Your research mentor has multiple roles



Role	Focused on	Is responsible for...
The Traditional Mentor (advisor) 	Personal career & professional development goals	Career development Psycho-social support
The Educator (trainer) 	Training goals	Scientific knowledge Technical skills Critical and analytical thinking Identification of creative projects
The Supervisor (manager) 	Overall lab productivity goals	Performance Behavior Individual Productivity

# Suggestions for productive IDP discussions

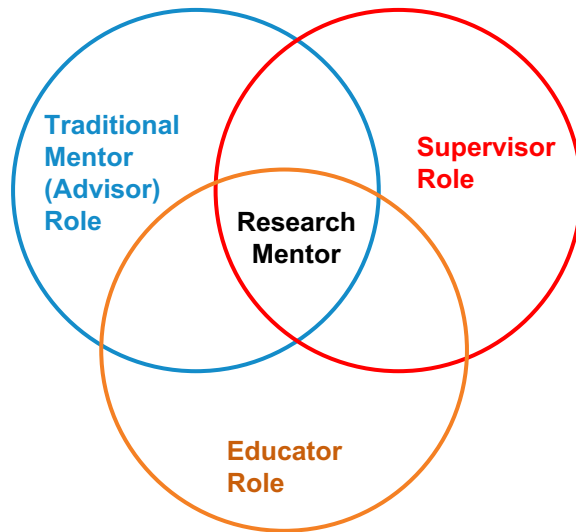
- Be aware of what “role” you’re playing at every point in the discussion, clarify explicitly when necessary
  - Supervisor, mentor/advisor, educator
  - Power differential as the supervisor is always at top of student’s mind regardless of your perception of your role
    - **PI/advisor says:** Have you thought about doing that internship after you graduate?
    - **Student hears:** My PI/supervisor isn’t supportive of internships
    - **PI/advisor says:** I encourage you to consider all your career options
    - **Student hears:** My PI/supervisor thinks I’m not good enough or productive enough to achieve faculty position
- Recognize when your IDP conversation has become a negotiation

# Recognize when the IDP conversation has become a negotiation

What is Negotiation? *“A back and forth communication designed to reach an agreement when you and the other side have some interests that are shared and others that are opposed.”*

*-Getting to Yes, Fisher and Ury*

## Your research mentor has multiple roles



- You usually don't have differing interests with an advisor (mentor):

**Your goals are their goals for you.  
Your metrics of success are  
their metrics of success.**



- But at times, almost everyone has different goals and benchmarks for success than their instructor and their supervisor.

# Coaching your trainees to set achievable goals

- S**pecific – break into smaller steps/tasks?
- M**easurable – can measure success?
- A**ction-oriented – *how* verbs?
- R**ealistic – difficulty vs. timing?
- T**ime-bound – specific deadline?

*Example:*

*“During the next year I’m going to improve my classroom teaching skills.”*

# Coaching your trainees to set achievable goals

<b>Goal/ Skill to improve</b>	<b>Method/Steps to achieve goal</b>	<b>Timing</b>
Become a more <b>engaging</b> teacher	Discuss my current strategies for engaging students, and get more ideas, by talking to: <ul style="list-style-type: none"><li>- Teaching Center staff</li><li>- 2 faculty who I think of as engaging lecturers</li></ul>	1 month before my first guest lecture
	Guest lecture a course to practice	Teach at least 2 lectures this year; schedule it this month.

# Instructions for Case Study Breakout Rooms

You will need to access the chat panel during the breakout room exercises. To open it, click on “Chat” at the bottom of your Zoom screen.

## 1. Familiarize yourselves with the breakout rooms

We will break you into groups automatically.

Introduce yourself to the other members of your breakout room

Make sure you can find the chat panel

You will all then leave the breakout room and join the main Zoom call

## 2. Case Study discussion in breakout room

You can find the case study details and the guided questions in the chat panel when you get to your breakout room.

You will have 10 minutes to discuss in your group

We will then come back together to discuss as a large group



# How can I be prepared for these conversations?

One of your postdocs makes an appointment to share her annual IDP with you. She sends her IDP to you ahead of the meeting, a two page list of tasks and goals mapped out monthly for the next year. After a 1-minute scan, you are generally pleased with the progress she has predicted for near-term experiments, time for data analysis, and generating manuscript sections for her paper. However, you notice that during the summer months, she has one vague goal related to improving her teaching skills:

*“Improve teaching skills: By May 15, confirm offer to teach Bio102 at SFCC during Summer quarter. Weekly night time lecture.”*

You know that her desired career outcome is a tenure track teaching/research position at a state college setting and you believe that her teaching and presentation skills are weak, so this would be good experience. But you’re concerned about her ability to get everything done in the lab AND prepare and deliver a three-hour night lecture/lab once every week. And with funding running short, you need her to leave the lab soon.

- What are your concerns and what else do you want to know?
- During your IDP conversation meeting, how do you respond? What questions do you ask first?
- How might a more clearly written goal help you?
  - More Specific? What needs to be Measured to reach the goal? More clearly Action-focused? More Realistic considering all her obligations? More clear Timing/deadlines?

# Individual Development Plan (IDP) Prompts for Trainees and Mentors

IDP Phase	Questions trainees should be considering	Questions for mentors to ask during an effective IDP conversation
1. Assessment (trainee)	<p><b>Accomplishments:</b></p> <ul style="list-style-type: none"> <li>• What achievements am I proud of, since my last IDP discussion?</li> <li>• What goals did I set in my last IDP and which ones did I reach or not reach?</li> <li>• What barriers did I experience to reaching the unmet goals? Do I anticipate those will continue? What new barriers are on the horizon?</li> </ul> <p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>• What <b>tasks</b> am I good at doing in my research and outside of research?</li> <li>• What <b>tasks</b> am I not good at doing?</li> <li>• What skills do I need to improve in order to achieve my next career step?</li> </ul> <p><b>Interests:</b></p> <ul style="list-style-type: none"> <li>• What <b>tasks</b> do I enjoy performing inside and outside of lab?</li> <li>• What <b>tasks</b> do I dislike performing?</li> <li>• What tasks do I want to do more of and less of in my next career step?</li> </ul> <p><b>Values:</b></p> <ul style="list-style-type: none"> <li>• What intrinsic and extrinsic rewards and outcomes do I want from my work? How might those change in the future?</li> <li>• What rewards and outcomes do I want from my future career?</li> </ul>	
2. Career and Professional Considerations (trainee)	<ul style="list-style-type: none"> <li>• Do I have a clear and informed intended outcome for my post-training career outcome? (<i>That is, what do I want my next job to be?</i>)</li> <li>• Reflect on Assessment phase responses: How do my responses in the Assessment phase impact preparedness for my next career step?</li> <li>• What transitional experience must I gain to achieve that next career step? If no, what do I need to do to decide on my intended outcome?</li> <li>• If I can't answer the above questions confidently, what can I do gain confidence?</li> </ul>	

**3. Goal Setting  
(trainee)**

**SMART goals, mapped to a timeline**

- During this IDP period, what major milestones must I reach, for my research and academic progress?
- During this IDP period, what will I do to move my career professional development plans forward?
- During this IDP period, what skills do I need to build for my current efforts at UCSF?
- What skills do I need to build for my future career?

**4. Implementation  
(trainee and  
mentors)**

- Trainee attends meeting with mentor(s)
- Discuss and revise written goals and timing with input from mentor(s)
- Work with mentors to achieve goals and steps on time
- Repeat steps 1-4 periodically

**Before the IDP meeting**

Please send me your written IDP summary in advance of our meeting.

- Trainee's supervisor may want to request only written responses to "Achievements" (Phase 1) and "Goals" (Phase 3).

**Prompts to organize the IDP meeting**

-What did you say you were going to do in your last IDP?  
-What did you actually do? What barriers did you experience and how can I help you overcome them?  
-What are you going to do in lab in the next year?  
-Where are you headed when you finish and do you feel prepared?  
-What are you going to do this year to get there, is that reasonable, and how can I help you?

**Coach the trainee on their written goals**

**Not specific enough goals**

-This goal seems unclear, too big picture. If you break it down into a *sequence of steps*, what would that look like? Get back to me after you revise your IDP to include those steps.

**Timing of goal is too ambitious**

-I'm concerned that this particular goal seems overly ambitious given the other things you want to accomplish during that same month. Is it really important all of those things during that month?

**The activity described doesn't serve a necessary purpose**

-How will that professional development goal you've set contribute to your desired post-training job goals? (*What you would not say is, "You don't need to take that grant-writing course during Spring quarter if your goal is to become an intellectual property attorney".*)

**(Negotiation conversation)**

Trainees goals conflict with what you want the trainee to accomplish

# Development planning during COVID?

# Development planning during COVID?

- Productivity concerns from PI's
- Trainees' concerns about their own productivity and progress
- Meaningful work concerns
- Isolation from the lab group concerns
  - related to normal project-based silo'ing
- Could an Individual COVID Plan (ICP) process for your lab help with these challenges?

# Development planning during COVID?

## Steps for creating “ICP’s” in your lab

1. Ask trainees to spend an hour thinking through the ICP prompts (handout) they find relevant and prepare to discuss with you (*see handout*)
2. Meanwhile, consider rearranging priorities or reframing the way your lab functions
  - Ideas/scenarios for rearranging priorities
  - Consider previously existing barriers to each trainees’ progress
  - Brainstorm new opportunities trainees can now use to make progress, overcome barriers
3. Meet with trainee
  - Discuss their responses to ICP prompts
  - Discuss barriers to progress and compare your ideas for new opportunities with theirs
  - Agree on goals and steps needed to make progress on new opportunities

## Individual COVID Plan ("ICP") Prompts for Trainees and Mentors

"ICP" Phase	Questions trainees should be considering	Things for mentors to consider during an effective "ICP" conversation
1. Assessment (trainee)	<p>Accomplishments:</p> <ul style="list-style-type: none"> <li>• What challenges am I facing when it comes to making progress toward my previous goals right now?</li> <li>• Are there strategies that have worked better for me than others?</li> <li>• What goals are impacted by COVID? How are those goals impacted? Which goals can I work toward? Which goals/what aspect of my goals are out of my control at this point?</li> <li>• Are there new opportunities to make progress toward my goals right now?</li> <li>• What will transitioning back to the lab look like? How should I prepare for that transition?</li> </ul> <p>Skills:</p> <ul style="list-style-type: none"> <li>• Are there skills that I can focus on during the shelter-in-place orders?</li> <li>• What skills are not possible to work on right now? Are there skills that I can focus on during the shelter-in-place orders instead?</li> <li>• What tasks are going to be difficult when we transition back to working in the lab? What skills should I prepare for with that transition in mind?</li> <li>• What skills might I need in order to transition back to working in the lab?</li> </ul> <p>Interests:</p> <ul style="list-style-type: none"> <li>• Have my interests changed since the shelter-in-place orders started?</li> <li>• What tasks give me energy during these difficult times? Which tasks seem to require more energy now versus before?</li> </ul> <p>Values:</p> <ul style="list-style-type: none"> <li>• Have my values changed since the COVID outbreak?</li> <li>• What priorities should I be aware of within myself and outside of myself?</li> <li>• Have the rewards and outcomes that I want from my future career changed?</li> <li>• What are the known impacts from this outbreak and what are the unknowns?</li> </ul>	



# Considerations for rearranging research priorities

***All of the scenarios presented in the following slides necessitate a firm and intentional shift toward a team-based approach to your research programs.***

***No matter how collaborative your group may have been before, it will be crucial to ensure that you foster a collective sense that everyone is contributing to the success of the team and the progress of the research mission, regardless of the scope and scale of the contribution.***

***Trust, patience, and generosity will be key.***

# Considerations for rearranging research priorities

## **To continue on COVID or not to continue on COVID**

- Is it the PI's interest or the student's interest to turn away from previous projects and toward COVID projects?
- How do you assess the trainee's interest, abilities and how repurposing will affect progress?
- Consider trainees' stage (Jr vs Sr student, Jr vs Sr postdoc) and how major shifts in research focus impacts desired outcomes.

# Considerations for rearranging research priorities

## **Discuss career goals alongside the research goals, particularly for late stage trainees**

All prospective employers seek employees with demonstrable accomplishments and skills, and a high impact paper is just one of many ways to showcase these. In fact, a high impact first author paper is unnecessary for most career steps outside of academic research.

-What experiments are truly necessary to graduate?

-What non-experimental research related steps can be taken to round out a postdoc's skillset?

-Help your trainees create an inventory of accomplishments and skills that might not have been published in peer-reviewed literature.

NOTE: academia is experiencing hiring freezes but industry is hiring.

# Considerations for rearranging research priorities

## **Develop methods for remote collaboration and training**

- Sooner or later new members will have to be trained and standing next to each other may not be possible.
- Take the time to develop methods –setting up webcams or phone/ipad holders to enable remote demonstration and training.

# Considerations for rearranging research priorities

## **Collaborate on reagent generation and purification**

- Can one person run multiple experiments in parallel, in service of multiple research projects?
- Many techniques can be scaled up eg. protein purification, and for 50% more effort one person could purify multiple experiments' worth of reagent.
- Capitalize on the interests and skillsets of each team member.

# Considerations for rearranging research priorities

## **Equity when some can't get to lab (caregiving, vulnerable health condition, or challenges with transportation)**

- 1) Assess career goals – maybe experiments aren't necessary at this stage? Can the trainee work on grants, papers, computational analysis in service of both lab progression and skills development?
- 2) Collaborative project development: can a technician or other research staff support the research needs of the project, while the trainee focuses on the data analysis and interpretation?
- 3) Flexibility in scheduling – ensure those with the greatest logistical challenge receive priority scheduling
- 4) Remember that equal time in the lab is not the same as equitable access/support

# Considerations for rearranging research priorities

## **Arrange shifts around common projects – two possibilities**

- 1) Arranging for people working on the same project to take sequential shifts might help the project progress faster. The person in shift 2 can pick up where the person on shift 1 left off.
- 2) Arrange for people on similar projects to be in the lab in the same shift to provide opportunities for collaborative discussion.

# Helping trainees create a more useful Individual COVID plan

1. Lab member	2. Next stage this member needs to reach	3. Barriers to individual's and lab's <i>progress</i>	4. What are new opportunities for making progress?  Share your ideas with trainee while soliciting their ideas	5. ICP Goals including goals to achieve new opportunity (written by trainee, then discussed and revised with PI)



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Reo, 5 <sup>th</sup> year PhD	Finish last experiment for resubmitting his thesis paper	<p>Can't be in lab (obvious) Data collection requires being in lab.</p> <p>Needs to improve his lab practices so he can move faster when we return:</p> <ul style="list-style-type: none"> <li>• <b>He is disorganized. Most frequent user of plasmid library but the library is disorganized. This slows him down in lab.</b></li> <li>• Also, his lab notebooks are disorganized. This slows him down in lab as well.</li> </ul>		

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Reo, 5 <sup>th</sup> year PhD	Finish last experiment for resubmitting his thesis paper	<p>Large team, not enough space. Reo can only get into lab four hours per week.</p> <p>Needs to improve his lab practices so he can move faster when he returns:</p> <ul style="list-style-type: none"> <li>• <b>He is disorganized. Most frequent user of plasmid library but the library is disorganized. This slows him down in lab.</b></li> <li>• Also, his lab notebooks are disorganized. This slows him down in lab as well.</li> </ul>	<p>To improve Reo's efficiency in lab:</p> <p><b>Organize an improved plasmid tracking process, get feedback, share and implement with lab.</b></p> <p>Research improved electronic notebook resources and lead the lab's effort to create a lab-wide standard.</p>	<p><b>Organize an improved plasmid tracking process</b></p> <ul style="list-style-type: none"> <li>-Create database of cut sites (4/30)</li> <li>-Link to electronic map (5/11)</li> <li>-Create labeling system (5/15)</li> <li>-Propose plan to other users, feedback/revise (5/22)</li> <li>-At lab meeting, share the system with others for everybody's use (5/25)</li> </ul>

# Discussion question

**What creative solutions have you considered or implemented for this problem of equity in the process of moving back into the “open for research” stage?**

***Equity when some can't get to lab (caregiving, vulnerable health condition, or challenges with transportation)***

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- 3) Flexibility in scheduling – ensure those with the greatest logistical challenge receive priority scheduling*
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# Where can I find the resources mentioned in this workshop?

[mentoring.ucsf.edu/workshops](https://mentoring.ucsf.edu/workshops)

- Presentation slides (PDF)
- Suggested IDP prompts for trainees and mentors
- Suggested “ICP” prompts for trainees and mentors
- Scenarios for rearranging research priorities
- Video link for this workshop

Feedback please!



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