Yearly Planning Meetings: Individualized Development Plans Aren’t Just More Paperwork

Ben J. Vincent,1,2 Clarissa Scholes,1,2 Max V. Staller,1,2,3 Zeba Wunderlich,1,2,4 Javier Estrada,1,2 Jeehae Park,1,2 Meghan D.J. Bragdon,1,2 Francheska Lopez Rivera,1,2 Kelly M. Biette,1,2 and Angela H. DePace1,2,*
1Department of Systems Biology, Harvard Medical School, Boston, MA 02115, USA
2Department of Genetics, Center for Genome Sciences and Systems Biology, Washington University School of Medicine, St. Louis, MO 63108, USA
3Present address: Department of Developmental and Cell Biology, University of California, Irvine, Irvine, CA 92697, USA
4Present address: Department of Developmental and Cell Biology, University of California, Irvine, Irvine, CA 92697, USA
*Correspondence: angela_depace@hms.harvard.edu
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The National Institutes of Health (NIH) encourages trainees to make Individualized Development Plans to help them prepare for academic and nonacademic careers. We describe our approach to building an Individualized Development Plan, the reasons we find them useful and empowering for both PIs and trainees, and resources to help other labs implement them constructively.

In the current research climate, there are too many trainees for very few academic positions, and ignoring this fact may lead to many missed opportunities to productively shape the training experience (Polka, 2014a, 2014b; NIH, 2012; National Academy of Science, 2014; Sauermann and Roach, 2012; Bourne, 2013). Having a career development plan in place will help trainees to prepare themselves for fulfilling careers both within and outside academia. In our lab, we have been making career development plans for all trainees, including students, postdocs, and staff, for the last 7 years; we all enjoy the process and see it as valuable. We see the new requirement from the National Institutes of Health (2014a) as an opportunity to discuss how to mentor trainees and provide leadership skills that positively influence lab culture.

The Goals

1. Motivate people by celebrating their accomplishments
2. Set short-term and long-term research and career goals
3. Help people make rapid progress by prioritizing projects and identifying barriers
4. Clarify and solidify relationships by giving honest constructive criticism
5. Clarify expectations in both directions and address any disagreements

In the process, we generate documents that are consistent with the requirements for an individualized development plan (IDP)—a defined career goal and steps to attain it. It’s worth noting that we have never called the meetings or the resulting documents an IDP; giving it an acronym makes it feel uncomfortably bureaucratic to us. We just call them yearly planning meetings.

Conducting yearly planning meetings helps the lab run smoothly. People are excited about their projects and feel supported in meeting their goals. The meetings also model a way to give constructive feedback and resolve conflicts, which has far-reaching benefits in the lab. In Figure 1 we describe our guidelines for giving constructive criticism in detail.

The Process

Our yearly planning meetings take about an hour and are organized around two very simple worksheets (blank and completed examples are available in the Supplemental Information, available online). But here’s the key: the worksheets are not the point. They help to organize the conversation by allowing people to gather their thoughts beforehand, remember what to say during the meeting, and have a record of what was discussed. The point is to have a real conversation, not to check boxes to satisfy the NIH.

Before the meeting, both the PI and the trainee fill out the Goals and Planning Worksheet; this gives both parties an opportunity to think through all of the categories on their own so that together they can be complete, and identify any discrepancies. During the meeting, the PI and the trainee go through the Goals and Planning Worksheet together and then jointly fill out the Calendar. The goal is to have a rough and flexible road map for the year and to come to a reasonable estimate for how long things will take. The major benefit of filling out the calendar together is that both parties agree on the basic plan. At the end of the meeting, the PI and the trainee will have two amended copies of the Goals and Planning Worksheet and one filled-out version of the Calendar. All completed worksheets are given to the trainee at the end to copy or scan and return right away. Everything is then totally transparent, because neither has had a chance to edit a sheet privately. It also allows the trainee to leave with something tangible.

Before the meeting, think carefully about your future and not just your next
experiment. These meetings are an opportunity to articulate your long-term goals and then make a plan to attain them, in terms of both your research and developing necessary skills. It can be helpful to seek feedback from other people in the lab about your strengths and areas that you could improve upon, and to brainstorm about specific steps to take to realize your goals. The more specific your plan before the meeting, the more productive the meeting will be. Trainees may not have yet decided on their long-term career goals; in this case the goal of the meeting can be to explore different options in a concrete way. Using online tools for exploring careers (NIH, 2014b), identifying a mentor in your field of interest, attending career seminars, or engaging a career coach (Kamens, 2015) can all be good places to start.

Before the Meeting: Tips for PIs

Before the meeting, think about your own goals for your trainee, as well as their goals for themselves. Think about the personal and professional circumstances of your trainee and how you can help their progress and motivation to reach their goals. For example, is someone in the midst of a technically challenging set of experiments? Do they need additional expertise? Can you help them find a collaborator or other resources to fill the gap? Do they need encouragement to persist or permission to move on? Or, if someone is considering a job in industry or teaching, do they have all the information they need to decide if this career direction is a good fit? Are they concerned about your opinion? For example, might they fear that if they admit they’re not aiming for an academic career you will reduce your support for them? This is also an opportunity to address whether the trainee’s goals are realistic. Do they have the qualifications that they need to succeed in their chosen career? Is their plan to achieve those qualifications realistic, or is it time to adjust their goals? Having a meeting every year allows both the PI and trainee to discuss both goals and the paths to attain them over time; this provides multiple opportunities to develop and execute a plan to attain a satisfying career. Remember that everyone needs different things at different times; tailoring your advice and help to their particular circumstances is useful and appreciated.

Filling Out the Goals and Planning Worksheet

Here are explanations of what should go in each category of the Goals and Planning Worksheet. Be brief. This is a bullet point list to guide your conversation and serve as a reminder later.

What to Include: Accomplishments

Most scientists are terrible perfectionists and never give themselves enough credit for the things they’ve achieved. Remember to be broad and generous in what you consider an accomplishment. Don’t just include things that would go on a CV, such as publishing papers or giving talks at conferences. Include progress toward goals (e.g., drafting or submitting a paper, getting a tough experiment to work), important exams (e.g., qualifying exams, GREs), applications (e.g., for jobs, fellowships, or graduate school), development of transferable skills (e.g., learning a new technique, organizing a workshop, reviewing a paper or grant), and milestones (e.g., choosing a postdoc lab, having a thesis committee meeting, organizing an industry internship). Remember that science happens in the context of someone’s whole life—you can acknowledge things outside the lab that impact work (e.g., family commitments, moving from a foreign country and getting settled, choosing a thesis lab).

What to Include: Research Goals

Focus on major milestones for getting projects accomplished, rather than nitty gritty weekly or daily goals. Goals on the
1–3 month timescale are about right, but
the precise timing isn’t so important, since
we all know how unpredictable research
can be. The point is to prioritize research
goals and make an initial estimate for
how long they will take so that obstacles
can be clearly identified through the year.
For this to work, your estimates have to
be realistic, both in terms of how long
things take and how many things you
can accomplish during the year. If there
too many goals or the estimates are unre-
alistic, the plan will become a recipe for
disappointment. Also, consider the goals
from the year before and whether they’ve
been accomplished. If yes, fantastic! They
should be listed in the accomplishments
section. If not, why not? Should those goals be restated for the upcoming year,
or should the project change direction
or be jettisoned?

What to Include: Professional/
Personal Goals
First, this section is for first articulating
your long-term career goal. Second, it is
for articulating which professional skills
you’d like to develop to attain that goal.
Examples include getting more teaching
experience, networking with people outside academia, or improving
communication skills. If your career goal
is still unclear, you can use this section
to think about how to build on current
strengths and improve on weaknesses.

What to Include: Feedback
This section is for constructive criticism
about how goals are being met, both at
the level of the individual and at the level
of the lab. Articulate appreciation for
things that are going well and specific is-
issues that could be improved. For
trainees, think about how the lab and
your interactions with your PI are work-
ing for you. For example, are you
meeting too little or too much with your
PI? Are you worried about the trajectory
of your project or someone else’s in the
lab or in the field? Do you have the bal-
ance of projects and free time that
you’re looking for? If there are general is-
issues in the lab, even if they don’t pertain
to you in particular, it can be helpful to
let the PI know. Remember, you’re not
whining, you’re pointing out conflicts so
that they can be resolved. For PIs, artic-
ulate the trainee’s strengths and areas
where they could improve. Ideally these
should be related to their long-term
goals; it is most useful for them to build
on relevant strengths and improve on
relevant skills. Make sure you say thank
you to your trainees for specific things
(e.g., getting slides ready for your big
talk at the last minute, bringing a new
technique to the lab, mentoring a rota-
tion student) (Riordan, 2013). It would
be a disaster if you only put negative
things in this section.

Tips on Conducting the Meeting
It Is Critical for the Trainee to
Lead the Conversation
This simply means that the trainee shares
their content first. The PI can pipe in, but
must be careful not to interrupt. The con-
versation proceeds section by section.
When the trainee is finished, the PI may
add any additional comments, or summa-
rize the discussion. If the PI shares their
content first, the whole meeting will have
a tone of the trainee being assessed. Al-
lowing the trainee to lead the meeting
gives them a sense of ownership over
their goals.

Work from Printed Copies of the
Worksheet during the Meeting
Having an iPad or laptop screen between
you will keep you from making eye con-
tact, and for this meeting to succeed, hav-
ing a good interaction is more important
than taking tidy notes! Electronic copies
are also less transparent, because you
can alter them during the meeting. Printed
copies can and should be annotated by
both people during the meeting and will
show everything that the PI and trainee re-
corded individually.

Starting with Accomplishments
Helps to Set a Positive Tone
Pausing to reflect on accomplishments
from the previous year together helps
people feel appreciated and competent
and motivates everyone to accomplish in
the next year.

The PI’s Responsibility Is to Make
Sure that Everything Has Actionable
Outcomes
Trainees may bring up issues that they
need help solving. PIs can offer lots of
different types of help. For example,
they can connect trainees to people
with needed expertise, either inside or
outside of the lab. They can offer funding
for conferences, workshops, or courses.
They can offer more or less oversight, or
an extra set of hands for a tough experi-
ment. Finally, PIs have the authority and
responsibility to resolve interpersonal
conflicts.

Feedback Comes Last in the
Meeting, and the PI Receives
Feedback from the Trainee First
The PI is in the power position; modeling
how to productively seek and receive
feedback helps the trainee to give and
receive feedback themselves. Remember
that it’s hard to tell people negative things!
It’s a real emotional risk—it would be
much easier to just say everything is
fine. Try to see critical feedback as an op-
portunity to improve. You don’t have to
incorporate all suggestions immediately.
Have some phrases ready in case you’re
faced with a critique you don’t know
how to respond to (e.g., “Thanks for lett-
ing me know. I’ll definitely think about
that more.”).

Advantages for PIs
Motivated Individuals Make a
Productive Lab
When you engage in this process with
your trainees, they will be motivated and
empowered to pursue their work. More-
over, the benefits extend to the lab as a
whole. You’ve taken time to connect peo-
ple with relevant expertise and resolve
potential conflicts. Think of it like yearly
preventative maintenance.

A Way to Check In on Progress
through the Year
Discrepancies between the calendar and
actual progress should trigger one-on-
one meetings. This happens all the time.
Things get delayed for all kinds of rea-
sons. The calendar helps to frame
these conversations and make them spe-
cific. For example, “We thought that by
April you’d be on to part X of your project,
but that hasn’t happened yet. Let’s chat
about why—maybe we underestimated,
or another priority has come up. But if
there’s an obstacle, let’s figure out what
it is.”

Paying it Forward
Every scientist owes something to a
fantastic mentor. Spending time with
your trainees, focused on how you
can help them reach their goals, can
be immensely rewarding and is a way
to repay your own mentors (Murray,
2011).

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720
Advantages for Trainees

Strengths and Accomplishments Are Formally Acknowledged
This happens fairly rarely in the critical culture of science, particularly for trainees, and can be a huge confidence booster.

Concrete Goals Are Motivating
Reaffirming research priorities can relieve pressure and provide clear ways forward when you’re juggling many projects.

Personal Goals Are Formally Discussed
This is important in the current climate, in which academic positions are scarce and trainees are often looking for opportunities in other sectors. An honest conversation with your PI can help dispel anxiety and formulate a tractable training plan to help you secure your next post.

Personal/Interpersonal Issues Can Be Discussed and Ironed Out
This meeting provides the opportunity to give feedback to your PI, as well as to discuss any tensions that may make life in the lab less than optimal. Remember, your PI may not be aware of issues with the lab atmosphere, but finding solutions to problems is possible and can make a huge difference to everyone’s happiness and productivity.

Research Expectations and Priorities Are Clarified
This enables both parties to be on the same page in terms of priorities and timelines for the coming year.

Conclusion
We hope that this new requirement for IDPs inspires real conversations between trainees and PIs. It undoubtedly will look different in every lab. We hope these guidelines are a useful starting point to develop a concrete, rewarding process for you.

SUPPLEMENTAL INFORMATION
Supplemental Information includes blank and completed examples of the Goals and Planning Worksheet and can be found with this article online at http://dx.doi.org/10.1016/j.molcel.2015.04.025.

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