What is your game plan?

An Introduction to myIDP, developed by:
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What is an individual development plan?

• IDPs have long been used by government agencies and the private sector to achieve specific goals for employees and organizations.

• An IDP is a tool to help employees understand their own abilities in order to reach short and long term goals, as well as improve job performance and satisfaction.

• An IDP is NOT a one-time activity

• Graduate students and new Ph.D. scientists can use an IDP to identify and navigate an effective and fulfilling career path
In a 1999 national survey of doctoral students in 11 arts and sciences fields found most students entered graduate school strongly considering a faculty career, but students reported a change in interest for this career path during their training.
Current challenges for PhD’s seeking careers in academia

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Adapted from Science and Engineering Indicators 2012, Table 3-20
MyIDP.sciencecareers.org
myIDP

1. Self-assessment
   Consider your skills, values, and interests.

2. Career exploration
   Learn about career options for PhD-level scientists, and compare your skills, interests, and values to each option.

3. Set goals
   Make a concrete plan for how you will improve your skills, build your network, and get the experience you need to prepare for your future career.

4. Implement plan
   Recruit mentors to help with various parts of your plan.

Your own IDP

Submit

Submit

Submit

Submit
Step 1: Take stock of your skills, interests, and values

• Skills
  • Figure out what you’re good at and what needs to be improved
  • Seven categories: scientific knowledge*, research skills, communication, leadership and management, professionalism, responsible conduct of research, and career development.

• Interests
  • Which work tasks do you find appealing enough to do frequently when you are given a choice?
  • Which tasks do you least enjoy doing?

• Work-related values
  • Essential for overall job satisfaction
  • They need to be identified, clarified, and prioritized.
  • Work-related values change with stages of life
• Rate your proficiency in each skill and knowledge area on a scale of 1 to 5, where 1 is “highly deficient” and 5 is “highly proficient.”
• BE HONEST!
  • "1" will help distinguish the skills that need the most improvement
  • "5" will help discern the skills you are best at
ACTIVITY
Think-pair-share

• Reflect silently on this activity for 1 min:
  • What initial thoughts or feelings come up after doing this activity?
  • Were you surprised by any of your answers?

• Pair with a neighbor and share any thoughts or feelings that came up during the activity or reflection
So, I assessed my skills, interests, and values. Now what?

• Step 2: Career Exploration
  • Consider Career Fit
  • Read About Careers
  • Attend Events
  • Talk to People
  • Choose a Career Path

• Step 3: Set Goals
  • Career Advancement Goals
  • Skills Goals
  • Project Goals

• Step 4: Implement Plan
  • Mentoring Team
S.M.A.R.T Goals

• **Why is this important?**
  • As you progress through your scientific training, you should take some time to develop skills that you might need now, later during your training, or in your future career.

• **How to set a SMART goal**
  • S – Specific – Is it focused and unambiguous?
  • M – Measureable – Could someone determine whether or not you achieved this goal?
  • A – Action-oriented – Did you specify the action you will take?
  • R – Realistic – Considering difficulty and timeframe, is this goal attainable?
  • T – Time-bound – Did you specify a deadline?
• How to set “skills development goals” effectively

• As you write SMART goals, keep in mind that to develop a skill effectively, you may want to:
  • get training (read a book, talk to someone with expertise in that skill, or take a workshop/course),
  • practice the skill,
  • get feedback on your skill, to assess whether or not you have improved (and what further improvement you might need).

• Keep yourself accountable
  • To ensure that you stick to the goals you set, it is important to make a concrete, specific plan for how you will keep yourself accountable.
## Example “SMART” Goal

<table>
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<th>Skill area</th>
<th>Developing/managing budgets</th>
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<tbody>
<tr>
<td>SMART goal</td>
<td>Get training*: Ask lab manager if she will discuss the lab budget and finances with me.</td>
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<tr>
<td>Is this a recurring activity?</td>
<td>No</td>
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<tr>
<td>Start date</td>
<td>November 10, 2012</td>
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<td>Target completion date</td>
<td>November 15, 2012</td>
</tr>
<tr>
<td>How will you be accountable?</td>
<td>Tell my friend Elizabeth my plan, and on Nov. 15 tell her what I learned.</td>
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</table>
Strategies for developing skills

1. Get training.
   • Participate in a course or workshop (local or online).
   • Watch a recorded workshop or seminar. (The NIH Office of Intramural Training and Education and the Khan Academy have posted many skills seminars online.)
   • Read an article, chapter, or book focused on the skill.
   • Observe others who excel at the skill.
   • Discuss strategies with a mentor or peer who excels at the skill.

2. Practice.
   • Do assignments in the context of a course.
   • Be aware of when you use the skill in your day-to-day schedule and consciously practice particular techniques in each instance.
   • Schedule protected time to practice (for example, you could practice your writing skills by free-writing every Friday morning for 15 minutes after breakfast, or practice assay measurements using a set of standards.)
   • Volunteer for additional activities (for example, you could offer to make an extra journal club presentation).

3. Get feedback.
   • Complete an assessment in the context of a course.
   • Ask anyone who excels at the skill to give you feedback; it could be an outside source, your mentor, or a peer.
   • Define criteria for success and then assess your own improvement. (For example, watch a video of yourself giving a talk.)
Activity

• Take 5 minutes to create 1 S.M.A.R.T goal for yourself based on your skills assessment
  • Is there a skill you would like to improve on?
  • Is there a skill you would like to learn?

• How to set a SMART goal
• S – Specific – Is it focused and unambiguous?
• M – Measureable – Could someone determine whether or not you achieved this goal?
• A – Action-oriented – Did you specify the action you will take?
• R – Realistic – Considering difficulty and timeframe, is this goal attainable?
• T – Time-bound – Did you specify a deadline?
You have put a lot of time and effort into pursuing your PhD degree. Now it’s time to focus on how to leverage your expertise into a satisfying and productive career. An individual development plan (IDP) helps you explore career possibilities and set goals to follow the career path that fits you best.

myIDP provides:
- Exercises to help you examine your skills, interests, and values
- A list of 20 scientific career paths with a prediction of which ones best fit your skills and interests
- A tool for setting strategic goals for the coming year, with optional reminders to keep you on track
- Articles and resources to guide you through the process

There is no charge to use this site and we encourage you to return as often as you wish. To learn more about the value of IDPs for scientists, read the first article in our myIDP series.

Click below to get started.

First Time Here?  Returning User

Author by:
Cynthia N. Fuhrmann, Ph.D. (UCSF)  Jennifer A. Hobin, Ph.D. (FASEB)
Bill Lindstaedt, M.S. (UCSF)  Philip S. Clifford, Ph.D. (MCW)
When assessing your interests and values, remember:

• Be honest with yourself!
  • Ask yourself, is your answer what you think it “should” be?

• Prioritizing is hard!
  • All of your highly scored answers will feel very important
  • Ask yourself, “what are your absolute must-have’s, without which you would absolutely turn down a job offer?”

• Set up an informational interview
  • Find out how your values might match up with careers you are considering
Concluding Remarks

• Remember, No job is perfect!
• What if your skills and interests don’t align?

• As you approach the end of grad school, it's important not to lose focus
  • Regularly check your progress and re-evaluate to stay on track
extras
Benefits

• Anonymous unpublished polls conducted by FASEB in 2009 reveal that postdocs and mentors find IDPs beneficial. The majority of postdocs who developed an IDP reported that it helped them assess their skills and abilities and identify the skills they would need to advance their careers. One respondent noted that it helped “not just to decide on a goal, but to have that goal in mind all the time.”

• Mentors reported similar benefits for their postdocs, and both groups found the IDP to be helpful for facilitating communication about postdocs’ career goals. According to one investigator: “The IDP helped me guide my postdocs toward experiences that would benefit their own career objectives. It allowed them to better tailor their experiences toward their career paths.” Graduate students at the University of California, San Francisco, reported similar beneficial effects.
While still a graduate student, you should start to develop career exploration skills. These include:

- **Scientific knowledge** - To succeed in any discipline, you need to know the content. Broad-based knowledge of your discipline and a deep knowledge of a specific research area. This knowledge changes over time, so, to be competitive, you need to keep up with the latest developments in your field.

- **Research skills** - Whether you work at the bench or in the field, you must have the research and technical skills required to execute your studies. Over the course of your doctoral training, you need to become proficient in research design, data analysis, and interpretation of the results.

- **Professionalism** - It means being a good colleague by fulfilling your commitments, working well with others, and handling conflicts that arise between students or employees. Time management is an important skill for everyone, but it's especially important for managers balancing several projects while overseeing a staff that relies on them for timely assistance and feedback. Moreover, good leaders don't just supervise their employees; they also guide and mentor them, integrating new information into your existing knowledge base, and identifying gaps that are ripe for new investigation.

- **Management** - In any position that involves managing people, you need to know how to facilitate effective teamwork and manage operations. Necessary competencies include planning and organizing projects, delegating responsibilities, providing instruction, guidance, and feedback to your team; and handling conflicts that arise between students or employees. Time management is an important skill for everyone, but it's especially important for managers balancing several projects while overseeing a staff that relies on them for timely assistance and feedback.

- **Professionalism** - Professionalism means adhering to the rules and regulations of your workplace and demonstrating workplace etiquette. It also means being a good colleague by fulfilling your commitments, meeting deadlines, and fostering good workplace relationships. Professionalism extends beyond your laboratory or office and into your institution and scientific discipline. You may be expected to serve on institutional or professional society committees, participate in extracurricular departmental functions, or serve on editorial and advisory boards. These activities are a great way to network, gain experience, and demonstrate your commitment to your field, and they can be very important to your professional advancement. And all these activities require— or at least greatly benefit from— professionalism.

- **Responsible conduct of research** - While your graduate training includes much guidance in the statistical analysis of your data, and interpreting the results, think creatively and propose innovative solutions to problems, be familiar with the publishing standards in your discipline, acquire practice writing and submitting papers for publication and dealing with reviews, and take advantage of opportunities to serve as a reviewer.

- **Communication** - By the time you get to graduate school, you should have mastered basic writing, editing, speaking, and presentation skills. If you haven't, this should be a major and immediate focus of your skills development, because communication skills are highly valued in all careers. If you're pursuing a research career, aim for expertise in writing scientific publications and grant proposals and giving technical talks and poster presentations. You'll need to be at least moderately proficient in these areas to complete graduate and postdoctoral work and to compete for faculty positions and some research administration roles.

- **No matter what path you take, at some point you'll have to navigate a difficult conversation**. This might include asking for a promotion or raise, negotiating your start-up package, or resolving a dispute with a co-worker. Skilled communicators handle these conversations with confidence, grace, and diplomacy.

- **Management and leadership** - In any position that involves managing people, you need to know how to facilitate effective teamwork and manage operations. Necessary competencies include planning and organizing projects, delegating responsibilities, providing instruction, guidance, and feedback to your team; and handling conflicts that arise between students or employees. Time management is an important skill for everyone, but it's especially important for managers balancing several projects while overseeing a staff that relies on them for timely assistance and feedback. Moreover, good leaders don't just supervise their employees; they create a vision and goals for their teams, motivate and inspire progress toward those goals, and serve as role models by demonstrating the behaviors they want others to display, learn from, and pass on.

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- **Responsible conduct of research** - The scientific research enterprise is built on a foundation of trust, and each of us must be committed to maintaining its integrity. Careful record-keeping is paramount: Scientific records should provide sufficient information to allow others to replicate your work. Researchers need to be well-versed in data ownership and sharing standards, so that they know when it is and is not appropriate to access, modify, and share data, and what rules they should follow when doing so. They must also adhere to the rules regulating research with humans and animals. They must understand and adhere to standards for authorship: What contributions must one make to a project to be listed as an author? What determines authorship order? How should work by other scientists be cited to avoid plagiarism? You should be able to identify and manage research misconduct and real or perceived conflicts of interest when you encounter them. Failure to manage these issues well could damage your reputation and lead to poor performance evaluations and even termination.

- **Career development** - The last group of skills in the myIDP skills assessment is not specific to science. Rather, these skills are that help you improve your ability to explore available career options, make a positive impression on potential employers, and land the job you want. Perhaps the most important of such skills is networking: you should take advantage of the many opportunities your training offers to connect with other people, whether at department seminars, happy hours, or conferences. Professional networks often spark collaborations and lead to job opportunities. They can also make you a better scientist.

- **While still a graduate student, you should start to become familiar with the career exploration resources available to you.** These include the career counselor at your university, your postdoc office, online resources such as Science Careers, and the library. myIDP lists an extensive collection of career resources (free, private registration required for access). Although you may not be ready to start applying for jobs, you should learn what you'll need to do to create a competitive application and begin adding relevant experiences to your CV or resume. If you haven't had practice interviewing or negotiating, you may want to read up on effective techniques or take a workshop or seminar.
This step of the myIDP process is intended to narrow your career options to the one or two choices that align best with your unique sets of skills and interests and that satisfy your career-related values. These options are likely to provide the most satisfying and rewarding careers for you over the long term. Subsequent articles in this series will discuss ways of positioning yourself for success in these careers.

**Why spend time considering skills and interests?**

It’s almost certain that you’ve been using your skills and interests for years to make career decisions, even if you haven’t done so consciously. It’s likely that you decided to pursue a Ph.D., for example, because you found your science classes engaging and performed well in them. Probably, you tried to find research during college and learned that you liked it and were good at it. So, the pursuit of a research-based Ph.D. seemed like the logical next step for someone who enjoys research and success at it. See? You’ve been through this process before, even if you weren’t systematically aware of how you were making those decisions.

Unfortunately, the process is about to get harder because you now need to make decisions about career paths you may not know much about. How much did those early experiences in science teach you about the daily work of an academic researcher? Not much, probably. When you decided to pursue a Ph.D., were you envisioning spending your days writing grants and papers, managing people and resources, driving scientific agendas for your team, and delivering presentations at journal clubs and international conferences? More likely, you were thinking of days spent in the lab pursuing important scientific questions. But that was before you knew that you needed to consider the kind of job you want to have as well as what skills and interests you need to perform those tasks.

And what about all those other science-related jobs? What’s it like to be a research administrator or to work in regulatory affairs? How much does an industry researcher travel? Is it too much? How much of your time is spent blanketing the country and traveling to mountains, to hospitals, and to the likes of antibody research? How much do you need to present at journal clubs? How much do you need to travel? How much do you enjoy it?

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**Values: Even more important than skills and interests?**

In order to be satisfied with your career choice, your skills and interests could be a perfect match—but if the job you have trained for does not provide the tangible outcomes you want, you may lose interest in it. If your passion for your work is based on non-financial factors, such as the feeling that you are making a difference, then you need to identify these factors and consider them as you make your career decisions.

A career is a big investment in money, time, and energy. It’s almost certain that you’ve been using your skills and interests for years to make career decisions, even if you haven’t done so consciously. It’s likely that you decided to pursue a Ph.D., for example, because you found your science classes engaging and performed well in them. Probably, you tried to find research during college and learned that you liked it and were good at it. So, the pursuit of a research-based Ph.D. seemed like the logical next step for someone who enjoys research and success at it. See? You’ve been through this process before, even if you weren’t systematically aware of how you were making those decisions.

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**Values: Finally, learn as much as you can about your pared-down list of career options so that you can identify those that are a good match for your values.**

In order to be satisfied, your values must be aligned with your career choice. Your skills and interests could be a perfect match—but if the job you have trained for does not provide the tangible outcomes you want, you may lose interest in it. If your passion for your work is based on non-financial factors, such as the feeling that you are making a difference, then you need to identify these factors and consider them as you make your career decisions.

1. We’re assuming that you’ve already signed up for myIDP and carefully rated your skills, interests, and values. If you haven’t, please do so now. (For guidance, read: Skills, Interests, Values. Take your time and do it carefully. We can wait.)

2. The result of that assessment process is a list of the career options available to scientists with Ph.D.-level training (under the tab “My Career Path Matches,” in the “Consider Career Fit” section), ranked according to your unique responses to the “skills” and “interests” inventories. (If you haven’t completed those inventories, your choices won’t be properly ranked.) Don’t take the ranking too seriously. These are merely well-informed suggestions; just because the career path you’re most interested in ranks 12th or 15th, that doesn’t mean you shouldn’t consider it. The whole point of this exercise—the steps you’re going through right now—is to think this through for yourself and consider on your own—indeed, independent of our recommendations—which career paths seem most appropriate for you. (For guidance, read: Read About Careers.)

3. Proceed by systematically reading through the list of resources provided for each career path (in myIDP’s “Read About Careers” section), focusing first on either the career paths at the top of the list, or the ones you’re most interested in. As you read, guard against preconceived ideas about the various career-path options, which might lead to an incorrect judgment. (“I heard that all management consultants travel 100% of the time”; “my principal investigator told me that industry scientists have no intellectual freedom.”) Instead, keep an open mind and study each path before you decide if it would be a good fit for you.

4. Interests. As you read, identify the options that involve a high proportion of tasks that you find engaging and enjoyable, and a low proportion of tasks you find boring and unpleasant. You may find it helpful to return to your lists of interests and review (and maybe even revise) your answers.

5. Skills: After you’ve identified careers that seem like a good match for your interests, identify those that involve a high proportion of tasks that you are good at doing—your skills—and a low proportion of tasks where you need a lot of improvement, or that you may never be good at. But keep in mind: You’ve spent years acquiring new skills, and you’re capable of doing it again—and again. So, while it’s important to choose careers that match your (current) interests and values, it’s up to you to decide how much additional time and effort to put in in order to acquire new skills. This means that you don’t have to rule out a career just because you don’t have the skills for it. You can probably learn the skills you need if you’re willing to put in the effort.

6. Values: Finally, learn as much as you can about your pared-down list of career options so that you can identify those that are a good match for your values.

You may wish to go beyond the resources we have provided, consulting books and other Web-based resources. For example, industry-specific salary tables might help you determine whether a path is likely to fulfill your income goals. Finally, go out and talk to people about the career paths you’re most interested in. Network and conduct informational interviews with people in the field, or at a specific company of interest to you. One-on-one conversations can help you learn more about workplace climate and family friendly policies, for example.