

Over the past few years, the University of Minnesota has greatly expanded its capacity to support the training and professional development of postdoctoral scholars. The secret to our success is a highly cooperative relationship between The Graduate School's Office of Postdoctoral Affairs and the university's Postdoctoral Association. This collaborative relationship has led to joint efforts to improve the conditions of work, provide a wide range of professional development opportunities, establish venues for mutual support, and ensure that the voices of postdoctoral scholars are considered in the processes of institutional planning and policy.

In recent years, we've made great strides in improving the overall climate for those who choose University of Minnesota as a base for postdoctoral training. However, the most important aspect of the postdoctoral experience is also the most difficult one to influence: namely, the quality of the professional and interpersonal relationship between postdoctoral scholars and their mentors. At the end of the day, having a successful postdoctoral experience depends on the strength of this relationship and the intellectual growth and development that stems from it. Unfortunately, there is precious little evidence that formal programs of professional development, offered by offices of postdoctoral affairs or postdoctoral associations, will have much direct influence over the dynamics of these working relationships.

While there is no formal program of postdoctoral training that can guarantee nurturing relationships and productive experiences, the preparation and use of an Individual Development Plan (IDP) significantly improves the odds that postdoctoral appointees will engage in professional development and training opportunities appropriate to their needs by setting an agenda for learning beyond the doctorate. By carefully reflecting on learning objectives, setting goals, and implementing an individualized plan for training and research productivity, scholars and their mentors have a chance to articulate and negotiate mutual expectations. The IDP is most useful when revisited and revised over the course of the appointment.

Identifying existing competencies and learning objectives are crucial first steps in navigating among and between the many professional development opportunities available at an institution as large as the University of Minnesota. If thoughtfully prepared and regularly revisited, the IDP is certain to focus your energies on mastering the competencies critical to your chosen future in academe, industry, or other settings. Whether you have already begun a postdoctoral appointment, or are just now starting work at University of Minnesota, we strongly encourage you to inform your mentor(s) that you intend to prepare an Individual Development Plan that will be the basis for periodic conversations about progress in the training dimension of the postdoctoral experience.

Thereafter, it's up to you to work your plan! Let us know how we can be helpful.



Gail Dubrow

Vice Provost and Dean of the Graduate School

# The Individual Development Plan for Postdoctoral Professional Development

## Purpose of the Individual Development Plan

The Individual Development Plan (IDP) is a tool designed to assist with (1) identifying professional goals and objectives; (2) assessing an individual's skill set relative to their career goals; and (3) developing a plan to acquire the skills and competencies needed to achieve short- and long-term career objectives. While the IDP is not new, its recognition as a best practice in postdoctoral professional development is fairly recent. The Federation of American Societies of Experimental Biology (FASEB) was an early proponent of using IDPs for postdoctoral career planning. Dr. Philip Clifford, Associate Dean of Postdoctoral Education at the Medical College of Wisconsin, played a key role in drafting and promoting the FASEB model of the Postdoctoral IDP.<sup>1</sup> Because of its demonstrated usefulness in fostering professional development, the IDP is increasingly recognized as an important instrument for postdocs in a broad range of positions. A well-crafted IDP can serve as both a planning and a communications tool, allowing postdocs to identify their research and career goals and to communicate these goals to mentors, PIs, and advisors.

## IDP—Effective Tool for Professional Development

Findings from a 2005 Sigma Xi Postdoc multi-campus survey of US postdoctoral scholars underscore the importance of the IDP for career planning and professional development.<sup>2</sup> According to the survey, postdocs reporting the highest levels of oversight and professional development are more satisfied, give their advisors higher ratings, report fewer conflicts with their advisors, and are more productive than those reporting the lowest levels. The survey results also indicate that crafting an IDP at the outset of the postdoctoral appointment may contribute to better time management, more efficient resource use, and more focused effort.

Specifically, the survey found that, compared to their peers without a written plan, postdocs who begin their appointment with an IDP developed in collaboration with their advisors:

- Are **23% more likely** to submit papers to peer-reviewed journals
- Publish first-authored papers at a **30% higher rate**
- Submit grant proposals at a **25% higher rate**
- Are **25% less likely** to report that their advisor did not meet their initial expectations

By defining their career goals early on, postdocs 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 Office of Postdoctoral Affairs (OPDA) was established in spring 2003 and is based in The Graduate School. The mission of the OPDA is to ensure successful training experiences for the more than 1,000 members of the postdoctoral community by providing a supportive working

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<sup>1</sup> FASEB site: <http://opa.faseb.org/pdf/idp.pdf>

<sup>2</sup> Davis, G. 2005. Doctors without orders. *American Scientist* 93(3, supplement). <http://postdoc.sigmaxi.org/results/>

environment and resources to prepare them for the next step in their careers. Based on the findings of the national Sigma Xi survey and our own knowledge of the needs of postdoctoral fellows, postdoctoral associates, and research associates at the University of Minnesota, the OPDA has developed resources and a template to encourage adoption of the IDP by all members of the postdoctoral community

### Outline of the IDP Process

The development, implementation, and revision of IDPs require a series of steps to be conducted by postdoctoral scholars and their mentors. These steps are an interactive effort, and so both the scholar and the mentor must participate fully in the process.<sup>3</sup>

<b>Basic Steps</b>	<b>...For Postdocs</b>	<b>...For Mentors</b>
<b>Step 1</b>	Conduct self-assessment	
<b>Step 2</b>	Write an IDP Share IDP with mentor and revise	Review IDP and help revise
<b>Step 3</b>	Implement the plan Revise IDP as needed	Establish regular progress review
<b>Step 4</b>	Survey opportunities with mentor	Discuss opportunities with postdoc

#### Step 1: Conduct a self-assessment

For new arrivals to the University postdoctoral community, it is important to conduct a self-assessment at the beginning of the postdoctoral appointment and develop the IDP to determine your short-term and long-term goals. For current postdocs, conducting a self-assessment may be helpful towards the end of fellowship year or appointment, so you and your faculty mentor can reflect on the your postdoctoral experiences during the past year and develop the IDP to focus on the upcoming year.

The self-assessment will help you to gauge your skills, strengths and areas that need further development. Some of the skills and strengths that are relevant to career decisions in research include: technical abilities (breadth and depth of expertise), writing skills, oral communication skills, organizational ability, leadership, self-motivation, decision-making, creativity, work ethic, problem solving abilities, knowledge (depth and breadth), perseverance, ability/desire to take risks. Take a realistic look at your current abilities. This is a critical part of career planning. Involve your mentors, faculty, colleagues, family and friends in the assessment process by asking them to identify your strengths and the areas you need to develop.<sup>4</sup>

Here are some questions to initiate the self-assessment process. These questions are not intended to be comprehensive, but can serve as a tool for you and your mentor to identify your career goals and competencies required to reach your goals.

Career Goals	What are your short-term career goals? How will you achieve these goals within the next two to five years?
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<sup>3</sup> FASEB site: <http://opa.faseb.org/pdf/idp.pdf>

<sup>4</sup> Annual Self Assessment for Postdoctoral Fellows, University of North Carolina Chapel Hill, Office of Postdoctoral Services [http://postdocs.unc.edu/postdoc\\_self\\_assessment\\_form.doc](http://postdocs.unc.edu/postdoc_self_assessment_form.doc)

Career Goals	<p>What are your long-term career goals? How will you achieve these goals within the next 10 to 15 years?</p> <p>What did you do last year to help develop contacts relevant to your short-term or long-term goals? Did you have opportunities to network with individuals from institutions or companies you feel may be a good fit for your future career aspirations?</p>
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What percentage of your time have you spent in the past year on the following components of the postdoctoral experience? How much time would you need to spend this year?<sup>5</sup>

- Research
- Grant writing
- Attending research-related meetings or seminars
- Background reading
- Presenting at conferences or professional meetings
- Writing for publication
- Course development
- Teaching
- Job search process such as CV/résumé building and formatting, interviewing, etc.
- Student advising
- Attending career development workshops

#### Scholarly Competencies

Research	<p>What research theories or questions have you developed in the past year? How can you continue to build on those theories or questions? Are there other related theories or questions to develop?</p> <p>What research-related skills have you acquired? What feedback have you received on your research skills? What further skills do you need to acquire to be successful with your research and future career? How will you gain exposure to these skills and evaluate your competency?</p> <p>What research collaborations (intradisciplinary or interdisciplinary) have you established? Are they successful and beneficial to your scholarly or scientific work? If so, how can you continue to build on those successes for the coming year? If they have not been successful, how can you improve on your collaborative research skills?</p> <p>How much time do you spend on experiments or projects that did not work? Are you continuing to solve problems with the experiments or projects, or could there be more important work to consider for this year? If so, how will you identify such experiments or projects?</p> <p>What research-related seminars did you attend? Were they beneficial to your work? What seminars do you need to attend this year?</p>
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<sup>5</sup> *Ibid*

Teaching	<p>Did you do any teaching in the past year (courses, seminars, laboratories)? Would you like additional opportunities to teach? How will you find these teaching opportunities?</p> <p>What sorts of feedback, formal or informal, have you received on your course content, syllabi, pedagogy, consideration of diverse learners and overall teaching abilities? In which areas do you need to improve? How will you improve your teaching and what resources are available?</p>
Papers and Publications	<p>What papers did you author or co-author in the past year? Were any of the papers submitted for publication? If not, could any of those be submitted for publication this year, or do you need to write different papers? How will you identify potential publishing venues?</p> <p>What types of feedback, formal or informal, have you received on your writing skills?</p> <p>What specific areas of writing do you need to improve?</p>

### Professional Development Competencies

Presentations	<p>What presentations (lab meetings, journal clubs, seminars, scientific meetings or professional conferences) did you make in the past year? What sorts of feedback did you receive on the content of your presentation and your presentation skills? Are there specific presentation skills you would like to improve? How will you do so and what are your resources? What presentations would you need to make this year?</p>
Fellowships and Grants	<p>What fellowship or grant proposals did you write? Were they funded? If yes, how will you assure that you make progress on these projects this year? If the proposal was not funded, what can you do to improve the application for future submission?</p> <p>What feedback have you received on your grant writing skills? Are there specific areas you need to develop to attract potential funders? How will you improve your skills and what resources are available?</p> <p>What grants do you need to write this year?</p>
Budget Management	<p>How much experience do you have with budget management? Do you need to gain more experience managing a research or project budget? How will you accomplish this?</p>
Leadership	<p>What leadership experiences have you had that allowed you to identify objectives, implement plans and acquire decision making skills?</p> <p>What positions (within and outside the University) can you pursue this year to enhance your leadership skills?</p>
Conflict Management	<p>What opportunities have you had to develop skills related to conflict management? Such skills might include the ability to understand:</p> <ul style="list-style-type: none"> <li>• psychological, physiological and behavioral aspects of conflict</li> <li>• cross-cultural considerations in dealing with conflict</li> </ul>

Conflict Management	<ul style="list-style-type: none"> <li>• prevalent conflict management styles and strategies</li> <li>• positive opportunities that can be presented by conflict</li> <li>• differences between the roles, responsibilities, process and expected outcomes of mediation, arbitration and negotiation</li> <li>• differences between compromise, cooperation, collaboration and consensus building<sup>6</sup></li> </ul>
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### Competencies for the Job-search Process

Below is a list of suggested professional development competencies related to the job search process that could be developed to increase the chances of securing a job offer of your choice in a timely manner. Take time to identify areas you need to improve and the resources available within and outside of the University.

#### CV/résumé building and formatting

- Formatting for the appropriate audience (e.g. teaching versus research university)
- Including information pertinent to the job description and qualifications
- Using a consistent, well-organized format that is easy to read and professional

#### Job Interviews

- Preparing and researching for the interview
- Understanding different types of interviews for industry and academia
- Recognizing and effectively responding to different forms of questions such as theoretical, leading and behavioral
- Properly communicating essential qualities such as clear communication skills, enthusiasm, leadership experience, teamwork oriented, decision-making abilities, organizational skills and maturity
- Gaining experience with mock interviews that provide in-depth feedback
- Developing interviewing techniques such as SAR (situation, action, result)
- Handling difficult questions with poise and purpose
- Identifying common cultural barriers to the job search
- Developing questions for the interviewer
- Maintaining appropriate contact after the interview

#### Informational Interviews

- Tailoring the interview to your personality preferences
- Establishing contact with an individual from the company or institution of interest
- Formulating effective interview questions
- Maintaining appropriate contact after the interview

#### Networking

- Identifying opportunities to meet with individuals who may be interested in your research and professional experiences
- Communicating your scholarly, research and career interests to individuals in academic and professional communities who may be aware of employment opportunities that match your specific experience and skills.

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<sup>6</sup> <http://www.campus-adr.org/CMHER/Newsletter.html>

### Job-talk

- Tailoring the content for institutional or organizational fit
- Clearly communicating your research or scholarly agenda
- Engaging the audience in your presentation
- Addressing questions clearly and effectively

### Cover Letter

- Reflecting a clear understanding of the organization or institution's mission and structure
- Clearly stating an interest in the position and your qualifications to fulfill the position
- Highlighting research and/or teaching interests
- Detailing the required competencies for the position mentioned in the CV or résumé

### Teaching Portfolio

- Teaching philosophy
- Course syllabus
- Lesson plans
- In-class and out-of class activities
- Assessment methods

## Emerging Areas of Competencies: Collaborative Leadership

Regardless of your chosen career path, at some point you will likely find yourself engaged in a collaborative endeavor, such as co-teaching, collaborative research, or working on a team project. Working in teams often requires the ability to translate discipline-based concepts, methods and practices in ways that experts from other fields will find understandable. Effective collaborative leadership also requires considerable attention to group dynamics, the professional development of team members, negotiating the division of labor and credit, as well as managing conflict. Although there are specific skills and competencies required to effectively engage in collaborative and interdisciplinary activity, such as building trust and creating clarity, these are not routinely taught within the academic and professional curriculum. The Graduate School, in collaboration with the Office of the Provost and the Office of Human Resources, is working to develop a collaborative leadership development series that will help individuals to assess their collaborative leadership competencies and skills, and to identify areas in which they can enhance those skills (see <http://www.grad.umn.edu/oii/about/initiatives/leadership/>).

Rather than simply identifying the gaps in your skills and competencies, we encourage you to assess your collaborative leadership skills by reflecting on the unique traits you possess. These may be strengths that are not yet valued by your field(s) of study, but which have the potential to transform thinking and learning in your disciplinary area. It is also useful to keep in mind that the skills and competencies that are most useful for professional and career development are not a fixed set, but rather continuously change based on your experiences and your goals.

### Step 2. Write an IDP

The IDP maps out the general path you want to take and helps match skills and strengths to your career choices. It is a changing document, since needs, skill levels and goals will almost certainly

evolve over time for postdoctoral scholars. The aim is to build upon current strengths and skills by identifying areas for development and providing a way to address these. You should discuss your draft IDP with your mentor. Agree on a development plan that will allow you to be productive in the laboratory and adequately prepare you for your chosen career. The specific objectives of a typical IDP are to:

- Identify specific skills and strengths that you need to develop (based on discussions with your mentor). Mentors should provide honest feedback - both positive and negative - to help you set realistic goals.
- Identify a research project and necessary level of commitment to match your abilities and career goals.
- Define the approaches to attain the research goals you have chosen and obtain the specific skills and strengths (e.g., courses, technical skills, teaching, supervision) you need to acquire and/or build upon.
- Define milestones and anticipated time frames for goal acquisition.

### Step 3. Implement the Plan.

The plan is just the beginning of the career development process and serves as the road map. To attain your goals, you must implement and assess the plan.

- Put your plan into action.
- Revise and modify the plan as necessary. The plan is not cast in concrete; it will need to be modified as circumstances and goals change. The challenge of implementation is to remain flexible and open to change.
- Review the plan with your mentor regularly to assess progress, expectations and changing goals. Revise the plan on the basis of these discussions.

### Step 4. Survey Potential Career Paths.

- Identify career opportunities and target those that interest you for further exploration.
- With your mentor, assess how your current skills and abilities match the competencies required of your chosen career(s).
- As necessary, revise your IDP to prioritize your developmental areas and discuss with your mentor any skills or strengths you need to further develop before successfully transitioning.

## **Individual Development Plan Template**

<b>Areas to develop</b> (Assess your scholarly and professional competencies. What do you need to develop?)	<b>Goals: long—term</b> (What will you do to improve in the areas you have identified?)	<b>Goals: short—term</b> (What could you do this year?)	<b>Overall Strategies for Reaching Goals</b>	<b>Steps and Timeline for completion of goals</b> (What steps will you take to accomplish your goals and by when?)	<b>Resources available</b> (Human or electronic)	<b>Outcomes</b> (What will you have accomplished to indicate that you have reached your goals?)

## **Institutional Fit—Reflection on Values / As a Narrative Prompt<sup>2</sup>**

*Reflection:* As part of the picture of your ideal job, you will want to think about what’s important to you in life—values, principles, what you’re willing to stand up for, and what you care about. To help spark more of that thinking, make use of the following questions and record your responses for looking at “later on.”

- What values do you hold most important?
- What is the goal you most want to work toward?
- Who are your heroes and heroines?
- What principles are you willing to stand up for?
- What do you think the purpose of your life is? What do you most want to accomplish?
- What in life do you think is worth making sacrifices for?
- What kinds of sacrifices are you willing/ not willing to make?

### **Values and Work**

Look at your responses to the values prompts completed earlier. Chose from those factors that seem to you particularly important in your future work. Discuss these with peers/mentors/people in your life and make note of the ideas that emerge.

### **Working Conditions**

In what kind of place and under what conditions will you do your best work? Think both in terms of physical space and also the kind of work you’ll be doing. Discuss the following and note your responses.

- What’s your favorite kind of work? Do you prefer working with data, people, or ideas—and in what combination?
- What kind of physical space do you thrive in? Do you need privacy, noise, do you like to be outdoors? Do you prefer to work alone or with others?
- How much autonomy do you need? Do you like to be supervised or to supervise others?
- What kind of financial and material resources do you need to do your ideal job?

### **Rewards at Work**

Rewards are a particularly important part of any job. Consider what kinds of rewards your ideal job would give you and which are most important to you. Discuss and note your responses.

- Do you want a large salary or are other rewards more significant to you than money? What are those rewards?
- How important is tenure to you (if pursuing a faculty position)?
- How important is prestige and notoriety? Would you like to become an academic “star”?
- What do you consider the greatest rewards of teaching?
- What do you consider the greatest rewards of research and/or artistic and creative work?

### **Balance**

Among the advantages of a professional career can be the variety of work it offers. Finding the right balance between various aspects of your job is a crucial part of identifying how you and a position “fit.” Discuss the following and note your responses.

- What would be the best balance between aspects of the position/job duties as presented in the position description? Note what percentage of your time would be spent doing each.

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<sup>2</sup>Developed by Bill Rozaitis and Ilene Alexander, University of Minnesota Center for Teaching and Learning

- What is the best balance between time spent working and personal time? How many hours each week are you willing to devote to work?

**Institutional Fit—Reflection on Values / As a Visual Prompt**

*Reflection:* At what type of institution would you like to teach or conduct your scholarly work? Note your responses in the table below. As with any reflection on institutional/position fit, brainstorm, talk with others, show what you’ve noted to people who know you well.

<b>Personal Feature</b>	<b>Institution and how it represents a good fit</b>
Personality	
Family Concerns (Personal Balance)	
Professional Goals	
Values	
Teaching Considerations	

**“Fit” – Job, Qualifications, Documentation**

*Analysis:* Examine why you are suited to take on the position you’ve found given the context/setting/institution in which that position is located. As part of this process, fill in the table below.

<b>My Qualifications and Experience</b>	<b>Job Qualifications and Duties</b>	<b>How I Will Show a “Fit” in Job Documents</b>

Bill Rozaitis and Ilene Alexander, University of Minnesota, Center for Teaching and Learning.

## **Professional Development Resources**

### **University of Minnesota**

Office of Postdoctoral Affairs :

<http://www.grad.umn.edu/career/workshops/default.asp?list=postdoc>

[http://www.grad.umn.edu/postdoctoral\\_affairs/professional\\_development/job\\_searching](http://www.grad.umn.edu/postdoctoral_affairs/professional_development/job_searching)

Postdoctoral Association: [http://www.grad.umn.edu/postdoctoral\\_affairs/PDA/](http://www.grad.umn.edu/postdoctoral_affairs/PDA/)

Center for Teaching and Learning <http://www1.umn.edu/ohr/teachlearn/pff/>

Center for Human Resources Development: <http://www1.umn.edu/ohr/training/index.html>

University Counseling and Consulting Services: <http://www.ucs.umn.edu/career.html>

International Scholar and Student Services (ISSS) Career:

<http://www.iss.umn.edu/career/workshops.html>

### **Resources at Other Institutions**

Federation of American Societies of Experimental Biology (FASEB) site:

<http://opa.faseb.org/pdf/idp.pdf>

Powerpoint Guide, by Dr. Philip Clifford (Medical College Wisconsin):

<http://www.the-aps.org/careers/careers1/Postdoc/Clifford.ppt>

Case Western Reserve University (CWRU) IDP posted online:

<http://www.cwru.edu/provost/gradstudies/docs/Postdoc%20IDP%20Form%20CURRENT.pdf>

CWRU IDP on-line instructions

<http://www.cwru.edu/provost/gradstudies/docs/IDP%20Instructions%20CURRENT.pdf>

Vanderbilt IDP example:

<https://medschool.mc.vanderbilt.edu/mentor/Individual%20Development%20Plan.pdf>

For further discussion, please see article by Laure Haak in Science Careers online supplement.

“Career development is a two-way street: The FASEB individual development plan for postdocs and mentors”:

[http://sciencecareers.sciencemag.org/career\\_development/previous\\_issues/articles/1960/a\\_career\\_development\\_plan\\_for\\_postdocs/](http://sciencecareers.sciencemag.org/career_development/previous_issues/articles/1960/a_career_development_plan_for_postdocs/)

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<http://opa.faseb.org/pdf/idp.pdf>

Davis, G. 2005. Doctors without orders. *American Scientist* 93(3, supplement).  
<http://postdoc.sigmaxi.org/results/>.

Conflict Management in Higher Education Report, Wayne State University. College of Urban, Labor, & Metropolitan Affairs:  
<http://www.campus-adr.org/CMHER/Newsletter.html>

Annual Self Assessment for Postdoctoral Fellows, University of North Carolina Chapel Hill, Office of Postdoctoral Services [http://postdocs.unc.edu/postdoc\\_self\\_assessment\\_form.doc](http://postdocs.unc.edu/postdoc_self_assessment_form.doc).

Work on institutional fit, developed by Bill Rozaitis and Ilene Alexander, University of Minnesota Center for Teaching and Learning

An electronic version of this document is available at the University of Minnesota Office of Postdoctoral Affairs website: [http://www.grad.umn.edu/postdoctoral\\_affairs](http://www.grad.umn.edu/postdoctoral_affairs)