By Julie Gould

Lisa Rae Edmunds was annoyed when her department asked for an individual development plan (IDP) after she started her postdoc in developmental biology. “I thought it was an unnecessary hoop to jump through,” she says.

But despite her misgivings, Edmunds’s IDP has helped her to establish, review and update her goals and achievements with her supervisor. “As postdocs we have very loose guidelines on what we’re supposed to do, day in and day out,” says Edmunds, who works at the University of Pittsburgh in Pennsylvania.

She used her IDP to set a weekly plan for activities in and outside the lab that would help her to complete her year’s goals, including writing a first-author paper (which she has now started) and mastering specific in vivo metabolic techniques. It has essentially become an informal contract between her and her supervisor. “We’re on the same page,” says Edmunds.

Not every university, study programme or lab head requires PhD students and postdocs to prepare or maintain an IDP, but many junior researchers say that it helps them to identify their skills and skill gaps, set professional goals and objectives with specific timelines and build a positive relationship with their supervisor, particularly around shared aims.

Those who have used IDPs say that to be most effective, the plan should be reviewed and updated at least once a year, with input and guidance from the principal investigator or mentor.

IDPs and similar tools, including career- and personal-development plans, have long been used in government and industry, particularly in Western nations, as a way to help employees to achieve short- and long-term career goals and to improve their performance on the job. Data are sparse on the number of researchers who use them, but science-career experts who advocate such tools say that it is crucial that the plan has specific, detailed objectives.

Some junior researchers agree that IDPs are most useful when they are highly detailed and have multiple sections. Uschi Symmons, a molecular-biology postdoc at the University of Pennsylvania in Philadelphia, created a customized version by merging the university’s graduate-student IDP template with one for postdocs from Stanford University in California. She used her university’s section on self-reflection, skills analysis and goal setting, and Stanford’s progress-review section. The
personalized plan helps her to consider and identify her skills and objectives in a clear way, she says. She knows that she wants to stay in academia and her plan has helped her to tick off important steps towards that goal, including publishing a paper and learning to do peer review. “It was useful to write down goals that I could measure, that I could influence,” she says. “If I hadn’t had that, achieving those goals would have been tougher.”

An IDP should include four components, says Philip Clifford, an associate dean for research at the University of Illinois at Chicago, who has been developing templates for and advocating IDPs since 2001. Those include sections for self-assessment and reflection; career choices and pathways; short- and long-term goals; and ways to achieve and implement those goals. All goals need to be specific, with timelines and action plans for each, says Cynthia Fuhrmann, an assistant dean of career and professional development at the University of Massachusetts Medical School in Worcester, recommends that researchers apply the SMART principle — specific, measurable, action-oriented, realistic, time bound — to their goals. “It will transform planning from vague goals to specific ones, with timelines and action plans,” says Fuhrmann. Here are some of her tips for using the principle.

● Establish concrete criteria for measuring your progress. Write down each step you will need to take and how you will know when you have reached that goal. When you can measure your progress, you are more likely to stay on track and reach your target dates.

● Make sure your goals are action-oriented. Ask for the resources you need and mark check-in dates for the goals in your diary. Each goal should have a series of smaller sub-goals that you can tick off as you complete them.

● Create realistic goals that fit into your research schedule (and study programme if you are a student). Your goals are realistic if you truly believe that you can accomplish them.

● Give each goal a time frame. Without a deadline, there is no sense of urgency. J.S.

KEY SKILLS

Reflection, together with considering career choices, also proved invaluable to Sarah Saminadin-Peter, who advises clients on food-contact regulations at Intertek, a quality-assurance company based in Brussels. While doing a postdoc at Harvard Medical School in Boston, Massachusetts, she found that her IDP helped her to determine that she has superior organizational and project-management skills, and led her to Mull alternatives to academia.

“When I started to explore career paths that could match my competencies,” she says, “I was looking at what I actually valued,” he says. “And had I done it earlier, this would have been a more obvious route.”

GOAL SETTING

The basics of achieving targets

Research suggests that people who use professional-development plans such as the individual development plan (IDP) rank themselves higher on indices of success and achieve greater success within science and other fields according to some metrics (T. W. H. Ng et al. Pers. Psychol. 58, 367–408; 2005).

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Julie Gould is a freelance writer in London.