A stint as a postdoc is beneficial whatever research career students are intending to pursue.

COLUMN

Keep it moving

A postdoc job is good for your career, but don’t get stuck in an academic cul-de-sac, says Søren-Peter Olesen.

Should you take up a postdoctoral position after earning your PhD? My view is that you should. This is provocative advice in the face of data that clearly substantiate a worldwide oversupply of researchers who have completed such a post. Yet I am not suggesting that you undertake multiple postdocs, as many junior researchers do. Instead, I believe that a single postdoc term will benefit your career if you want to stay in research.

As director of the Danish National Research Foundation (DNRF) in Copenhagen, I’ve watched numerous trainees, including those in my own lab, make remarkable progress within a short time when they are exposed to the challenges that a postdoc role provides. These challenges offer an ideal background for rethinking and redefining your career away from academia (or in it, if you’re one of the few fortunates). I’ve gathered evidence from junior researchers who have worked in my lab, and from interviews with and a survey of former postdocs that further support my advice. Industrial employers from leading research-intensive companies in Denmark, to whom we presented these results, told us that they prefer candidates who have completed one term of postdoctoral research.

A postdoc placement is, of course, almost obligatory for an academic-research career — but the unfortunate and often-cited reality is that few tenure-track posts are available anywhere in academic research.

Yet a postdoc is valuable to you no matter what research career you pursue or in which sector you pursue it. You further develop your scientific and research skills and talents by working more independently on original problems, using innovative techniques; and you complement the abilities that you acquired during your PhD programme. In a postdoc role, you take more responsibility for the research; you learn how to manage others and apply for funds; and you are likely to receive greater exposure to a workplace in which many of your colleagues are from different nations. These are highly useful competencies for a research position in any sector.

Does a single postdoctoral stint help you to win an industrial research position? I believe that it does. I have watched junior researchers in my lab advance smoothly into industrial research careers after one postdoc term. Of the roughly 30 postgraduates who have left my lab over the past 11 years for a research job in industry, 21 obtained such jobs after one postdoc. Many of those successful candidates had competed with up to 100 other applicants.

With a single postdoc behind them, young scientists are highly attractive to the scientific community. The Danish industry representatives who attended our presentation of survey and interview results stated unequivocally that they would rather hire scientists who had completed one postdoc at a highly ranked international university than someone who had just finished a PhD. And they reiterated their stance at a round-table discussion in June.

But although one postdoctoral stint provides great value, the same cannot be said for two or more. The same industrial employers said that they might lose interest in candidates who have done many years of postdoctoral training.

To be sure, the glut of researchers who have finished postdocs is no different in

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Germany to fund tenure-track posts

Federal government will create 1,000 professorships.

**BY AMBER DANCE**

German President Angela Merkel and state prime ministers have signed a €1-billion (US$1.1-billion) agreement to fund 1,000 new tenure-track professorships, in the hopes of retaining and recruiting top academic talent in the nation.

According to the Nachwuchspakt (‘junior pact’), as the contract is known, the federal government will pay young professors as they work towards tenure, after which state-funded universities will assume financial responsibility.

“It’s the first time that the federal government, as far as I know, is investing such a lot of money into the careers of young scientists,” says Christian Schäfer of the German Academic Exchange Service in Bonn. The agreement, signed on 16 June, reflects an effort to improve the job situation for young researchers in Germany, where tenure-track positions are rare. Scientists typically work in temporary posts until they are eligible for a faculty spot — usually not until their early 40s, at which point it is difficult to start a non-academic career.

Schäfer and many young researchers say that the agreement is a positive step — but that more needs to be done. “It’s better than nothing,” says Andreea Scacioc, a structural biologist in Göttingen, who earned a PhD in 2014. “But it’s too little.”

Every year, about 28,000 PhD and medical students graduate from German universities. There are about 25,000 actively employed professors, according to the German Association of University Professors and Lecturers (DHV). The Society of Junior Professors, a national advocacy group for junior academics (DHV), estimates there are 10 times as many assistant professors, nearly doubled between 2006 and 2013, reaching 3,598, whereas the number of associate professorships grew by less than 25%, to 4,443. Of these, just 5–10% become available each year. Many people with postdocs work hard on short-term contracts while waiting for a vacant professorship. Most will wait in vain.

Many junior scientists do multiple postdocs, in part to further their dream of a professorship and partly because they see no clear alternative. But it is clear from our survey of and interviews with former postdoc researchers (which we conducted between 2014 and 2015) that aiming for academia through multiple postdocs is unlikely to bring career satisfaction. The 400 participants had done postdocs between 2007 and 2014 at DNRF centres of excellence (research units embedded in Danish universities or research institutions). Of the 20% who now work in industry as researchers or managers, 85% said that they were very or fairly satisfied with their current job. And they reported greater satisfaction with their job security and career opportunities than did those in academia, including researchers currently doing a postdoc.

Yet half of the interviewees and survey respondents consider it unlikely or very unlikely that they will get a non-academic job, mainly because they think that they lack the necessary competencies. Most postdoc researchers whom I have interviewed also believe that they are on the path to a career in academia — though the disheartening truth is that even if you are a great scientist, there is often no place for you there. But it is clear from our survey and interviews that many people do up to three postdocs, increasing the risk that a potential employer, especially in industry, will see them as too specialized.

Ask yourself and your supervisor during your first postdoc whether you should aim beyond an academic career — and demand career advice and mentoring from people who work in relevant research-based industries or in the public sector. You need strong and specific career advice, including exposure to role models with careers outside academia. Only 20% of the postdocs in our survey had received such guidance.

You must control your own career. Don’t languish in a sector in which there might be no position for you, even if it seems risky to leave academia. A willingness to take risks is characteristic of a great professional life. As the Danish philosopher Søren Kierkegaard said: “To dare is to lose one’s footing for a while. Not to dare is to lose oneself.”

Søren-Peter Olsen is director of the Danish National Research Foundation in Copenhagen.