

should keep timing in mind: those who are more than a year away from the end of their programme should continue to improve their marketability in the industry in which they will seek a job. This could include learning fundamental business principles or earning a certification of value in that sector, such as a Project Management Professional certification in health care.

Those who hope to enter the job market in the next year, however, should focus on their job search, including such factors as CV development, professional branding, interview preparation, networking and the job-application process itself.

The CV should spring from the results of the professional DNA map, and needs to highlight transferable skills and specific areas of expertise (see go.nature.com/v1nhnm). Professional branding calls for, at least, a robust LinkedIn profile that mirrors the CV and lists research projects, papers, presentations and peer recommendations. Tweeting publications and talks can also be helpful. To prepare for an interview, trainees should video themselves answering sample interview questions — examples are available at online career forums and publications (see go.nature.com/oiaoiok) — and review the footage to understand how a potential interviewer might perceive them.

Trainees should also list 10–15 professionals in their desired industry to contact for informational interviews, and use LinkedIn, company websites and other online resources. It is important to gain insight into how these professionals work and to prepare for interactions with them. Finally, applicants must remember to customize their applications and CVs to address each job advertisement, rather than using a generalized portfolio for all.

Change is difficult, especially after doing the same thing in the same environment for most of one's adult life. But making the decision to embark on a new direction is often the hardest part. Sometimes taking that different path means believing it is OK to leave academia — even though academic culture may not support that belief. Having the proper tools can reassure biomedical trainees who worry about academia's locked gates — and help them to prepare for and pursue other careers that will offer an abundance of satisfaction and success. ■

Christopher Taylor is the associate director of the Center for Professional Development & Entrepreneurship at the University of Texas MD Anderson Cancer Center in Houston, Texas.

“When you’ve found something that excites you, don’t be afraid to let it guide you into the unknown.”

TURNING POINT

Paul Tesar

Paul Tesar discovered a new type of mouse stem cell in 2007 and published his discovery in Nature as a graduate student at the University of Oxford, UK. The paper launched him rapidly to a professorship at Case Western Reserve University (CWRU) in Cleveland, Ohio, where he continues to drive the field forward.

How did your graduate experience shape your career pursuits?

I was part of a joint programme — the US National Institutes of Health (NIH) Oxford–Cambridge Scholars Program — and split my time working with NIH human-stem-cell biologist Ron McKay and Oxford mouse embryologist Richard Gardner. I had a great deal of independence from day one. My first publication was a solo-authored paper in the *Proceedings of the National Academies of Science* (P. Tesar *Proc. Natl Acad. Sci. USA* **102**, 8239–8244; 2005) — a feat almost unheard of today.

How crucial was the fellowship to your stem-cell discovery?

I didn't set out to discover another pluripotent state. But my 'eureka' moment came when I derived mouse embryonic stem cells with similar characteristics to human ones, including the ability to differentiate into all other tissue types, known as pluripotency (P. Tesar *et al. Nature* **448**, 196–199; 2007). It took a while to prove that there was more than one pluripotent state, but that paper triggered a frame shift in the field. Epiblast stem cells would have been discovered anyway, but drawing the NIH and Oxford research together put that revelation in our hands. So strongly do I feel that dual mentoring arrangements are fruitful, that I encourage my students to find mentors with different skill sets.

What happened after the epiblast publication?

I was looking for my next position and wanted to maintain my level of independence. I also wanted to go back to Cleveland someday, and the CWRU — where I earned my bachelor's in biology — encouraged me to return. After I explained my goals, they created a one-off position that gave me a few years of funding and my own independent lab straight away. Things went better than I could have hoped. I hired good people and published some strong papers. The next year, at 28 years old, I applied for a faculty position. It was a whirlwind experience.

How did you maintain momentum?

In 2010, I was named a New York Stem Cell Foundation Robertson Investigator, which gave



me US\$1.5 million in innovation funding. That was enough to grow my lab from 3 to 12 members and to drive our research into unexplored areas. It was such a new field that I was able to rapidly address some major questions.

Is stem-cell biology entering a 'golden age'?

People have expected much from this promising field; it is time to deliver. Stem-cell transplantations are feasible and will continue to advance — and we are learning how to control stem-cell populations to perform specific functions. For example, recently, we screened for drugs that can stimulate the generation of a brain-cell type that is typically lost in diseases such as multiple sclerosis. There has been a huge uptick in the number of stem-cell-based trials, and the results of those will guide the future.

Do you do much work at the bench?

I would love to, but I spend most of my time writing grant proposals and renewals, progress reports and paper reviews. Unfortunately, I am really there only during the holidays after I have sent everyone home. They trust me enough to grow cells.

What is the best career advice that you have given or received?

They are one and the same: maintain work–life balance. The 24–7 culture of always answering e-mail and working through the night is counterproductive. I tell my students that working 12–15 hours a day does not equal a *Nature* paper; being smart about which experiments you pick will get you high-profile publications. When people are happy and stress-free, they can be creative and explore new areas. ■

INTERVIEW BY VIRGINIA GEWIN

This interview has been edited for length and clarity.