Work

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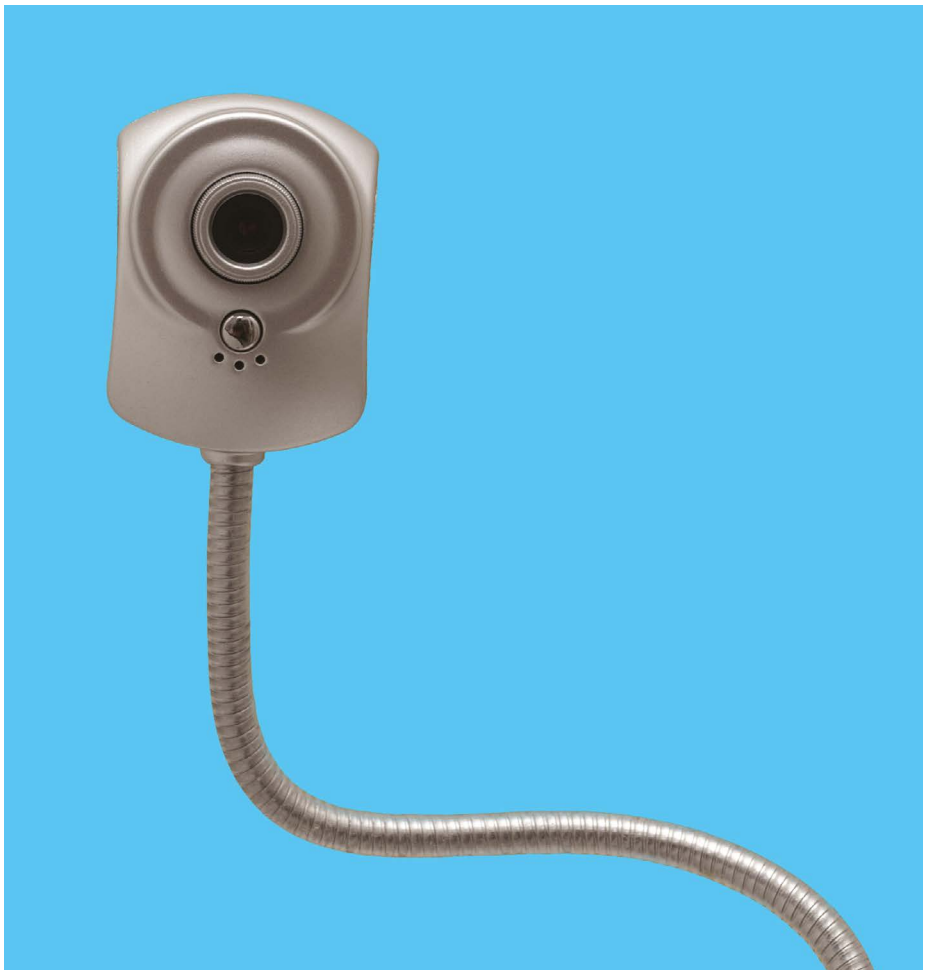

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INTRODUCING THE ZOOM INTERVIEW

Six tips for job hunting during the coronavirus pandemic. **By Abdelrahman Y. Fouda**

I am a postdoctoral researcher studying retinal diseases and was recently awarded a career-transition grant to start my own laboratory. My search for a faculty position was hit by the COVID-19 pandemic. I started sending out applications in January 2020, and found out in March that my planned interviews across several US states coincided with campus closures. The interviews were postponed indefinitely.

I reached out to four of my potential employers, and we agreed to try running online interviews. Conducting a full-day interview online was new both to me and to the interviewers, but over the past eight weeks, I've built up lots of hands-on experience. Here's what I learnt.

Ask for an itinerary. Just as with an in-person interview, it's important to have a sense of what your day is going to look like. I made sure I knew who I would be meeting and what they were planning to go over. Your potential employer will probably send you a series of links to connect to the scheduled meetings.

I made sure I had room in my itinerary to disconnect, reconnect and troubleshoot technical glitches between meetings. I also scheduled breaks throughout the day, and a long break for lunch to mentally disengage and stretch out. In practice, this meant I had 5 minutes between every 'back-to-back' meeting, plus 15-minute breaks every couple of hours, and an hour for lunch.

Test the connection. Before the interviews, I asked my potential employers what video-conferencing tool they were using, and downloaded the program to my computer (often there is a web version but, in my experience, the downloadable app tends to be more stable and come with more options). I familiarized myself with it by setting up a call with a friend so I could explore the program's features and get input. I also asked the meeting administrator for a test session a few days before the actual interview to make sure I could share my audio, video and seminar slides properly.

Set up your meeting room. I was going to be sitting in the same spot for the whole interview, so I made sure to choose a quiet, well-lit room.

As lockdowns ease, you might be able to conduct the interview from your lab, but if you are still at home, ask those you live with to be quiet and respect your space for the day. If you go into the office or are in a shared living space, put a sign on the doorknob making it clear that you shouldn't be disturbed. If you have children or pets that might make noise, let your interviewers know ahead of time. Try not to let it worry you — we're all getting used to background noises under lockdown and your interviewers are not going to judge you on your children's ability to keep quiet. In my case, I headed into my lab, following social-distancing guidelines, and informed my colleagues of the interview beforehand.

Prepare your environment. I was careful to adjust the camera to be at my eye level. Some meeting programs provide a virtual background or let you upload one from your desktop, but I used the neutral wall in my lab because it felt more natural. I also chose to face the door to anticipate any surprise entrances. Make sure you have what you need next to you, such as your itinerary, a pen and paper, and your CV.

Embrace Murphy's law. 'Whatever can go wrong, will go wrong.' In my case, it was the Wi-Fi signal. Halfway into a seminar, I had to move to another room to find an ethernet cable and continue my presentation. It was disruptive, but I hope the interviewers took it as a sign of resilience and working through unusual circumstances. If it's an option, a back-up technical plan and computer is a good idea.

Dress up. In an online interview, you do

not have personal interaction, and therefore you want to give the best impression possible through your tiny computer camera. I made sure I dressed as if I was going to meet my prospective employer in person. Professional attire has a positive impact and helped to remind me to behave in a polished manner — I've found it too easy to drop the professionalism in front of a webcam, because you don't feel the same social pressure you might in a face-to-face interview. Dress well from top to bottom and do not rely on the fact that the camera shows only your upper body. You might need to stand up or walk with your laptop from one room to another, as I did.

Communicate clearly. When I faced connection problems during my conversations and seminar, I tried to explain in a calm and timely manner. I had a mobile phone on hand, and had exchanged numbers with the meeting administrator in case I needed to troubleshoot problems. I tried to pause at appropriate points during my seminar, to make sure everyone was following and connected. In one of the sessions, I was talking to two faculty members who could see me and each other, but I could not see them owing to a software glitch. I made sure to check they were still available, and let them know that I could only hear them. There were other clumsy moments — often it felt like a choice between interrupting an interviewer or letting dead silence fill the air for a moment. In these moments, I made sure to keep a big smile on my face and talked only after the other side had completely finished and paused for couple of seconds.

"I found online interviewing much less tiring and stressful than onsite visits."

Before I accept a job offer, I hope I will eventually be able to visit the facilities and lab space in-person — an important consideration that can't be solved by videoconferencing. But overall, I found online interviewing much less tiring and stressful than onsite visits. I had many more opportunities to rest outside individual meetings, which I wouldn't have had in the 'real world'. And I had none of the travel commitments that might have been burdensome before lockdown.

Be prepared to be told that your potential employer will not be hiring until COVID-19 loosens its grip. Be patient, positive and understanding. Remember that this is a difficult time for everyone — and your potential employers will probably do the same for you.

Abdelrahman Y. Fouda is a senior postdoctoral fellow studying neurovascular biology and therapeutics at Augusta University in Georgia.

REPRODUCIBILITY AND MENTAL HEALTH

An inability to focus forced an exploration of what drives mental welfare. **By Jeff C. Clements**

On a cloudy October afternoon in 2015, I set off to drive to my partner's home. I was living apart from her while finishing my PhD. The drive through New Brunswick, Canada, was long and boring, but I made a point of going every weekend.

I don't remember much until I pulled up to a toll gate in the next province, nearly two hours past my destination — I had driven for three hours and didn't remember any of it.

I was suffering from an acute bout of imposter-syndrome-driven depression and anxiety, which lasted for about four weeks. Absentmindedness and an inability to focus were at the less-severe end of my symptom list.

A campus mental-health professional helped me to realize that my depression was driven, at least in part, by repeated manuscript rejection and harsh reviewer comments related to an experiment I earlier in my PhD. To address this, my supervisor hired an undergraduate student to help me replicate the experiment. Confirmation of my previous results, along with a wonderful support system outside work, turned my well-being around. For me, replicable scientific results and mental health were linked.

Successful replication, was able to alleviate my depression. But what might have happened had I been unable to reproduce my findings? And what might be happening to other early-career researchers who are unable to reproduce their own or others' results? It is no secret that many scientific disciplines have low rates of reproducibility, often dubbed the reproducibility crisis (see *Nature* **533**, 452–454; 2016). It is also apparent that early-career researchers — who often do cutting-edge science — have an extremely high prevalence of mental illness[1,2].

Testing the theory

This remained in my thoughts when I arrived in Trondheim, Norway, to begin a new postdoc in 2018. My supervisor, Fredrik Jutfelt, frequently mentioned that he was often unable to reproduce clear results from the literature. We wanted to know how common it might be for an inability to reproduce results to affect the mental well-being of early-career researchers. We conducted a Twitter poll (see go.nature.com/3dtta54); 40% of the 53 respondents said that irreproducibility played at least some part in their mental-health problems or imposter syndrome during their graduate studies.

Although there are limits to anonymous online surveys such as this, I know from experience that failing to reproduce results can cause extreme stress, because students often interpret it as a reflection of their own ability.

So, what can we do? For me, knowing that a failure to replicate is not an indicator of my ability as a researcher was crucial. If I had known that it did not mean that I was incompetent, it might have helped me to avoid that dark period of depression during my PhD — or at least to overcome it more quickly. In fact, inability replicate results is more than OK — it is common, and often correct. Initial studies might have poor methodologies, a lack of transparency and a wealth of biases[3]. Having understanding supervisors throughout my career — people who recognize irreproducibility as a healthy part of science — has helped to shape the way I think about it.

A cultural acknowledgement in science that negative results aren't a bad thing would have helped me. I feel that direct training on how to recognize and produce transparent and reproducible research (from experimental design through to publication) would have helped to alleviate my stress and improve my mental well-being. In my experience, such training is not common, but it would be worth developing. Discussions of the importance of publishing negative and null results would also help.

It is crucial that we address reproducibility if we are to eliminate the proliferation of false positives in scientific discovery. Science must also improve the dismal mental well-being of its workforce. I'm not aware of any studies that investigate the direct effect of reproducibility on mental health, but I would welcome one: I suspect I'm not alone in my experience of one issue affecting the other. Issues in reproducibility must be addressed, not just for the well-being of science as a process, but also for the well-being of scientists as people.

Jeff C. Clements recently completed a Marie Skłodowska-Curie postdoctoral fellowship at the Norwegian University of Science and Technology, and now works as a research scientist for Fisheries and Oceans Canada.

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