Dear NextGen VOICES peer mentors,

I am a young researcher with research proposals but no funding. My grant applications are still pending. My contract requires me to publish, but I can’t conduct experiments or produce reliable results without funding. With restrictions in place for COVID-19, I have limited access to my lab. How can I use this time most effectively to ensure that I can stay in academia long-term?

Sincerely, Funding Fix

Hone your skills

How can you turn the time created by this pandemic into a blessing? Faced with similar challenges, I have tried to upgrade my skills to work remotely, manage effectively, network extensively, and expand my knowledge through webinars, online conferences, and seminars. I suggest using this time to increase your knowledge by reading extensively in your research area. Write reviews, book chapters, or a short piece analyzing old data. Find collaborators who can give you access to a lab that is operational. Apply for funding that is open to young researchers or that requires collaboration with national or international partners. Attend interesting webinars, and never miss an opportunity to present your work to the research community.

Charu Lata
Council of Scientific and Industrial Research–National Institute of Science Communication and Information Resources, New Delhi, Delhi, 110067, India. Email: charulata@niscair.res.in

Have you considered using publicly available data as a source for research? I suggest that you stay in your area of research and ask some new questions. In this era of genomics, the wealth of publicly available databases allows you to conduct research at home. In the medical field, medical records and big data discovery are considered an essential part of the health infrastructure and represent a valuable resource for translational research.

Ruty Mehrian-Shai
Pediatric Hemato-oncology, Sheba Medical Center, Ramat Gan, 52621, Israel. Email: ruty.shai@sheba.health.gov.il

Are you sure that spending all your time doing experiments in the lab is the best way to obtain academic achievements? In my experience, analyzing experimental results, organizing figures, and rethinking scientific ideas at regular intervals are more important to improving quality of research. Consider using this time to better understand your current results. Prepare research figures that help you tell the scientific story of your findings. Review the literature with an eye toward adjusting the aims and methods of your ongoing research. Practice communicating your work through oral and poster presentations in virtual meetings. These activities will prepare you to use your time more productively once you return to the lab.

Bo Cao
Core Research Laboratory, The Second Affiliated Hospital, School of Medicine, Xi’an Jiaotong University, Xi’an, Shaanxi, 710064, China. Email: bocao@vip.qq.com
Connect and collaborate

Have you reached out to your departmental peers and administrators for direction? As a faculty member in a non-tenure-track position, I have found that it’s helpful to form a peer group to brainstorm ideas. It might also be useful to ask your school’s administration about their expectations for the current pandemic situation. Perhaps they will be flexible about your contractual obligations.

Naga Rama Kothapalli
Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK 73019, USA.
Email: ramakn@ou.edu

Have you thought about how much time you have been devoting to conducting lab work, writing manuscripts, securing grants, managing students, and reading? Many young scientists are pressured to focus on publications and funding to the exclusion of other important aspects of a career in academia. This time presents an opportunity to find a balance. Consider helping the graduate students and post-doctoral students in your lab. Spending some time bonding with these researchers, professionally and personally, will help you support them. Help them contribute by asking them to think in innovative ways. Fostering new networks will help you excel in the post-COVID world.

Garima Singh
Fleming Fellowships (Antimicrobial Resistance), South Asia, Delhi, India.
Email: singhg20@gmail.com

Step back and rethink

How can you use this time in non-traditional ways? Science teaches us to adapt when new information arrives or situations change. I have found that using my creativity has helped inspire my best science and service. I suggest that you find ways to be innovative by making art, learning about a new topic or perspective, volunteering for peer review, doing outreach, educating others, or taking part in citizen science.

Daniel Ari Friedman
Department of Entomology, University of California, Davis, CA 95616, USA and Remotor Consulting Group, Davis, CA 95616, USA.
Keybase: @docxology

What is the one experiment that you are most excited to complete? I have noticed from my work-from-home experience that it is good to stop and rethink the research from time to time. By prioritizing different experiments, goals become clearer. You might realize that you can avoid doing tangential experiments that are not necessary to support your primary hypothesis. This introspection will make your time in the lab more efficient when you return.

Felix Man-Him Cheung
School of Biomedical Sciences, University of Hong Kong, Hong Kong, China.
Email: felixcheung@connect.hku.hk

How can you use this time to protect your mental health? We always complain about not having enough time to read and learn everything we need. Now that many of us have plenty of time, it is important not to waste this gift. Remember to save some time for leisure. Read a romance novel, play a game, or listen to music. When you go back to the lab, you need not only the knowledge to complete your experiments but also the mental health to continue your work.

Wagner Eduardo Richter
Department of Chemical Engineering, Technological Federal University–Paraná, Paraná, Brazil.
Email: richter@utfpr.edu.br

Explore a new field

Have you considered reading current literature outside of your primary area of expertise? Waiting for funding outcomes necessary to commence data collection is stressful, but it does provide opportunities to spend time in other ways. Reading widely enabled me to bring novel perspectives to my research areas, which led to my highest-funded and most rewarding projects. Although reading broadly will not result in immediate publications, it can help differentiate you from your peers, which will ultimately help you stay in academia long-term.

Samuel Nathan Kirshner
School of Information Systems and Technology Management, University of New South Wales, Sydney, NSW 2052, Australia.
Email: s.kirshner@unsw.edu.au

Would your papers, science, and current datasets benefit from a shift in paradigm? Early in my career, I found that working with oral historians exposed me to a new way of seeing the archaeological landscape. It made my science more accessible to a general audience, brought community support for my work, and even helped pass legislation protecting archaeological remains in the countries where I recorded stories. I encourage you to keep an open mind and be flexible. Taking a step away from the lab could create an opportunity to examine your experimental paradigm, expand your literature searches to include fields outside your own, and seek different perspectives by opening dialogue with members of another field.

Felicia Beardsley
Department of Anthropology, University of La Verne, La Verne, CA 91750, USA.
Email: fbeardsley@laverne.edu

Have you thought about taking a break from research? Moving away from academia for a short period helped me acquire new skills and gain momentum later in my career. I took a break during the third year of my Ph.D. program to do an internship in industry, where I started to look at problems with a new perspective. Later, I incorporated some of that experience into my thesis, my postdoc work, and even my tenure track position. I suggest that you take a break and look for “virtual” internship opportunities. You may acquire new skills that you can apply to your research later. You might even realize that there are many other options for you to apply your knowledge and skills, which will allow you to make better career decisions.

Xiao-Yu Wu
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NEXTGEN VOICES: CALL FOR QUESTIONS

Need advice? Ask your peers!

Do your COVID-19 experiences differ from this young scientist, who faces too much travel, health uncertainties, or limited career options? Are you facing unique challenges that others have overlooked? Science would like to support you by asking readers to provide peer mentoring advice. Do you have a question that you would like your peers to address? Send it to Science at the link below!

To submit, go to www.sciencemag.org/nextgen-voices-covid-19-questions

Please submit by 30 October. If your question is selected, Science will post it anonymously and ask young scientists to respond with advice to be published in a later issue.

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Funding fix: Spend time
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