

## Voices

# Recovering from the stress of the COVID-19 pandemic

For our special issue on stress, we asked scientists about recovering from the stress of the pandemic, including some who shared insights with us in mid-2020. They discuss the importance of teamwork, re-assessing priorities, and the added stresses of the cost-of-living crisis, funding cuts, and retaining scientists in academia.



**Samantha C. Lewis**  
UC Berkeley

### No return to normal

I struggle with the word “recovery” in reference to the current pandemic context because it implies a return to a pre-pandemic world as the normative baseline. I don’t believe that this has happened, and more importantly, I’d prefer to contribute to a new world that incorporates what we’ve learned from the pandemic into how we approach both research and public health measures instead of returning to what was.

The COVID-19 pandemic has had, and continues to have, significant impacts on the daily lives and productivity of individual scientists, particularly those disabled by COVID-19 infection/post-disease sequelae and those with major caregiving responsibilities for young children or elders. The months lost to illness, lack of childcare, and added teaching and service responsibilities during the brunt of the pandemic impact led me to reflect deeply on my personal goals and values and whether they are compatible with an academic career. Ultimately, I chose to recommit to this path, with the additional clarity of having reaffirmed my current priorities and enacted more robust boundaries to protect them—particularly time with my family—in what can be a burnout-rewarding academic culture.

I’ve observed the same realignment of goals and values in trainees and colleagues. Faculty are more transparent about the travails of tenure-track life than ever, and a generation of trainees are rightly wary of the current challenging funding environment for basic research and what it forebodes. Academic careers are unpopular at the moment. My hopes for a pandemic-informed rebirth are sustained by those who see that to change the world, scientists must be in the world. By training a vibrant ecosystem of scientists and science communicators to operate within and without academia, we can retain a diversity of talented scientists and enrich public science literacy. Both could potentially help to halt the next pandemic in its tracks.



**Alexis A. Jourdain**  
University of Lausanne

### Support is paramount to success

In January 2020, when I received the long-awaited offer of my dream faculty position, I hardly suspected that the world was on the brink of a seismic shift. While I felt fortunate to have a job offer at that time, the COVID-19 pandemic soon cast a shadow of uncertainty as the prospect of my position standing firm amid the chaos of the pandemic was far from clear. My then place of work, the Broad Institute of MIT & Harvard, had shut its gates for several months, preventing me from completing my work in Boston, and like many foreigners in the United States, I was not allowed to travel, even in the event of a pandemic-related family emergency. All of this added to the pressure of moving to another continent, opening a lab, finding housing, securing funding, hiring the right people (online!), and equipping a lab at a time when supplies were scarce as a consequence of the pandemic.

My lab eventually opened at the beginning of 2021, shortly after the second and strongest wave of COVID-19 in Switzerland. Today, I look back at that time recalling the blend of stress and excitement. Having fully recovered from the rush of finishing my postdoc and opening my lab during a pandemic, I can now take pride in the team I have assembled, celebrating our accomplishments and first publications in the field of mitochondria and metabolism. How did we get through it? The most significant factor that comes to mind is the help and support of friends and colleagues throughout these events: my lab mates in Boston, who shared the same struggle; the generosity of my

former mentors, Jean-Claude Martinou and Vamsi Mootha; the unwavering help from my new department; and the energy of my freshly recruited lab members. Not forgetting the unfailing support from my close friends and family.

The challenges, uncertainties, and lessons of the pandemic have left an indelible mark on my journey. I have learned that resilience, patience, adaptability, and a strong support network are paramount to success, and I have come to appreciate the importance of encouraging a sense of unity and collaboration within and outside the lab. Looking forward, as I work to create a thriving and resilient research community, I am confident that the lessons learned during this remarkable period will continue to guide my leadership in confronting the unknown challenges ahead.



**Brenda A. Schulman**  
Max Planck Institute of Biochemistry

### Re-equilibrating and re-establishing

The burden of the COVID-19 pandemic and its consequences—and living and working under extreme restrictions for over 2 years—was demanding, and our institute as a whole is still re-equilibrating. We are in a “log phase” of re-establishing in-person interactions. In fact, I feel that our trajectory will increase collegiality and collaboration to exceed those prior to the pandemic period. At our institute-wide weekly in-person seminars, staff, students, postdocs, and faculty delight in hearing the research from colleagues, for both research in progress presented by trainees and polished presentations from international leaders in the field. We are prioritizing social interactions, for example, through the retreats for students, postdocs, and departments and regularly scheduled institute-wide events. This is especially important, because coming together to celebrate achievements while also supporting each other through the uncertainties of basic research is one of the great facets of academic science.

The pandemic also taught us to appreciate the tremendous value of teamwork in solving problems, including unexpected challenges from a global health and social crisis. Teamwork has always been fundamental to our department’s culture. The obvious advantages of teamwork include the value of approaching scientific questions with diverse expertise, having more brains deliberating over perplexing results, the accelerated pace of progress, and the joy that comes from shared excitement over breakthroughs. Before and during the pandemic, I actively fostered such teamwork. However, since we have been back to working in person, it has been incredibly gratifying that, on a very frequent basis, members of the department or from across departments surprise me with exciting new concepts and discoveries that have come from their teaming up on their own.

In-person interactions by members of the lab, at conferences or during research exchanges, have ignited new research directions. While days of Zoom meetings were beyond exhausting during the pandemic, it is wonderful that it is now second nature to hold a spontaneous meeting with longtime or newly encountered colleagues several time zones away. Now we use videoconferencing to transform what might have seemed like adventurous ideas into active areas of research.



**Karen H. Vousden**  
The Francis Crick Institute

### **Battered but certainly not beaten**

As the stress of the pandemic starts to fade, it's interesting to consider how well the research community rose to the challenges. Labs introduced complex shift systems to prevent loss of momentum, new chat groups designed to keep people in touch sprang up, and many institutions set up internal COVID-19 screening systems to keep staff safe and confident. Research into COVID-19—including the development of the vaccines—proceeded at breath-taking speed. Meetings weren't cancelled but moved online, with increasingly innovative approaches to encourage interactive e-poster sessions and direct exchanges. Funding was cut, and the work suffered—undoubtedly. But, as predicted, we survived—maybe battered but certainly not beaten. Lab work has sprung back, and real-life meetings are in full swing. If anything, we appreciate the personal interactions even more now, remembering how impersonal and unsatisfying all the virtual meetings were.

At Cancer Research UK, the key focus throughout the years of the COVID-19 pandemic was to protect research as much as possible while continuing to make progress for people with cancer under exceedingly difficult circumstances. As the world's largest charitable funder of cancer research, Cancer Research UK had to make some very difficult decisions to reflect the impact that the pandemic had on its finances, but thanks to an incredible surge in support, our income has returned to pre-pandemic levels, remaining on track to spend £1.5 billion on research over a 5-year period. This is all heartening, but the globally challenging economic climate and the cost-of-living crisis affecting so many people mean there will continue to be difficulties ahead. There are some nuggets of good news—for example, the UK Government's recent announcement that UK researchers will again be eligible to access funding from the Horizon Europe association. However, I worry that the pandemic has somehow added to a growing concern among our trainees that a career in academic research is too insecure and uncertain to be attractive. Our next challenge may be to assure our brightest rising stars that this really is the best job in the world.

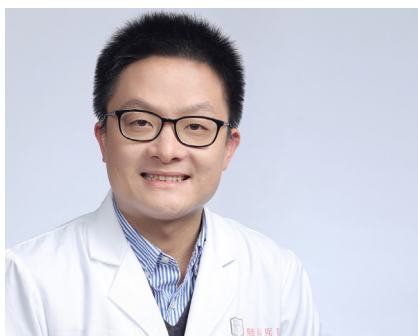


**Jacqueline M. Fabius**  
Quantitative Biosciences Institute, UCSF

### **Transition to teamwork**

Scientific research has not been immune to the wave of social disability that has shaken the world. Although all things are not back to pre-pandemic standards, some are falling back into place. It was a challenge to get people to come back to work in person, even in the lab, as many leaned toward the shifts that had been established during the pandemic. Until this past September, attendance at seminars was anemic. The 2 years of scientists being portrayed as saviors came down crashing with an anti-science sentiment on the rise. NIH funding, which moved SARS-CoV-2 research forward, seems to be on the decline in general. One worrying trend is that young scientists are increasingly seeing research as a “job” as opposed to a calling. A 9–5 mentality is permeating a sector that never had it, partially due to the nature of lab work. Many more scientists are moving on to industry instead of academia, where salaries cannot keep up with the increased cost of living. In our case at the Quantitative Biosciences Institute (QBI) at UCSF, we have forced certain situations by stopping hybrid events or meetings, creating more social occasions with food and beverages, such as happy hours, and teamwork activities at retreats. We have had events with bubble soccer, photobooths, and drum circles and have employed culture coaches to lead sharing sessions. On a positive note, although it is a challenge to keep the momentum that we had from 2020 to 2022, fueled by fear and the desire to find a solution, the pandemic showed that teamwork and collaboration were incredibly important to solve larger issues. Working together as a big group has become more popular, with many trying to do it more effectively, and as a result, publishing has become more inclusive. We exist in an overarching system that rewards the individual instead of teams, but things are changing. Another positive outcome of the pandemic is that the research community thinks more about the impact of its work on society and is working toward the treatment of disease, if not more directly, at least more consciously. Finally, at QBI, we have had a number of symposia and events with the attendance doubling the registration numbers. Without a doubt, people want to get back together to exchange ideas in

the human context as opposed to a screen. This bodes well for our future, in research and in society.



**Haipeng Liu**  
Shanghai Pulmonary Hospital, Tongji University

### Confidence is key

Clearly remembering the outbreak of COVID-19 in early 2020, as there was very little knowledge of the new coronavirus at that time, the uncertainty brought about a certain amount of panic. As a blessing, because of the city sealing control, I had spent the longest Chinese New Year in my hometown since I started working and enjoyed the precious time with my parents. However, it is true that we did not anticipate that the outbreak would last so long and have such a far-reaching impact globally. Since I was unable to conduct research, I made the most of the time to prepare manuscripts, one of which was later published in *Molecular Cell* and engraved with many memories of COVID-19.

COVID-19 spread globally and massively impacted scientific research. Shanghai has done a very good job in preventing and controlling COVID-19. In fact, as a lab based in Shanghai, we were lucky to be much less affected. However, the 2-month city closure of Shanghai in April 2022 led to the shutdown of the whole lab. This experience made the members of our group cherish the opportunity to carry out research in the lab. In December 2022, we experienced a particularly difficult time during the outbreak of COVID-19 in Shanghai. One after another, almost all the members of our lab were infected with serious symptoms. The lab was closed for more than 1 month. By chance, at that moment a paper came back from review by *Molecular Cell*. The uncertainty about when we could be back in the lab brought many concerns. Thanks to the flexibility of the revision policy during the pandemic, the editor provided us more time to revise the paper. Fortunately, we were able to overcome these difficulties, and the [article](#) was published.

In retrospect, my lab was officially established in July 2020 and started with only one PhD student, one technician, and one postdoc. The lab basically grew up with the pandemic in the past few years, and now we have formed a team of around 20 people. The pandemic has brought us huge challenges but also stimulated a magnitude of thoughts, especially how to find new opportunities in the crisis. In China, the pandemic seems to be far away, and all aspects are recovering strongly. Looking back on these years, one of the most intense feelings is that no matter what, confidence is the most important thing. I believe everything will be better.

### DECLARATION OF INTERESTS

B.A.S. is a member of the scientific advisory board of Biotheryx and is a co-inventor of intellectual property related to DCN1 inhibitors licensed to Cinsano. K.H.V. is a member of the *Molecular Cell* Advisory Board and is funded by and an advisor for Cancer Research UK.