SPECIAL EDITION: This issue features several articles touching on the important topic of mental wellness.

Student Mental Health Service brings student mental wellness to center stage

**Liz Terhune, BA**

During graduate school, Christitina Buckworth*, a CU Anschutz postdoc, almost believed that she was out of options. Her mentor was abusive, manipulative, and cruel. In her graduate program, changing labs was not permitted, and her committee was of little practical help.

After shutting the door to her garage and contemplating leaving the car running, she instead decided to seek counseling.

A 2017 study of over 3,000 PhD students found that 32% were at risk of a psychiatric disorder (DOI: 10.1016/j.respol.2017.02.008). A separate Emory survey estimated that 34% of graduate students had moderate to severe depression, with 7% reporting suicidal thoughts (DOI: 10.1007/s40596-014-0041-y). To anyone who has spent time in academia, these results aren’t surprising.

To investigate what is being done to help students at Anschutz, I spoke with Dr. Rachel Davis, MD, Director of the AMC Student Mental Health Service (SMHS). SMHS offers free individual and group counseling to students with the CU sponsored health insurance. SMHS is located on the 2nd floor of Building 500, with a welcoming staff and natural décor that make it feel like a calming spa. Dr. Davis has a lot to share. She rattles off a list of mental health initiatives that have begun over the last several years: Anti-Stigma Panels, De-Stress Fest, Peer Counseling, Improv for Anxiety.

Students themselves have worked through SMHS to start initiatives. Mackenzie Garcia, a 2nd year medical student, started Anti-Stigma panels as a forum for students to share personal struggles with mental health. Another medical student founded De-Stress fest, a festival with food, massages, yoga and other activities designed to reduce stress prior to final exams.

Nearly 600 students utilized SMHS with 3642 total visits to SMHS from 2016-2017 (See Figure on page 2). By percentage of the student body, medical and graduate students most frequently seek SMHS counseling. Dr. Davis explains that these students face unique challenges. “Med students have the sheer stress and anxiety from the workload,” while graduate students “must deal with a lack of structure, while still handling a lot of pressure.”

As Dr. Buckworth experienced, graduate students also frequently suffer from toxic lab relationships. Dr. Davis observes that graduate students “seem to struggle with interpersonal issues causing distress: problems with lab members, with their committee, their PI.”

Drs. Davis and Buckworth would agree on the helpfulness of available counseling. “I experienced anxiety through medical school and was helped so much from counseling,” Dr. Davis explains. “It really can make a difference.”

*Name changed*
Please take care of yourself, and ask your doctor if a Master’s is right for you!

I joined the PhD program in Bioengineering in 2014. This semester, I switched to the Master’s program, and I couldn’t be happier.

When discussing my struggles with graduate school, my peers would say “Everyone feels that way.” “It’ll be worth it!” “I mean, you don’t want to drop out, right?”

I heard and internalized all of these things, but ultimately, I wasn’t happy in grad school. My interest in my project was waning and I didn’t want a job in academia; I’d been dreaming of quitting for years.

Still, I wanted to be Dr. Hogan, so I did my best to stay afloat. I passed my comprehensive exam in December and got married three weeks later. But, a month after that I started going to counseling. I couldn’t keep up, and I wasn’t able to lie to myself anymore. I was diagnosed with severe anxiety and depression and given medication, which has significantly improved my quality of life.

Among these life changes, as I got a handle on myself again, I decided “sticking it out” for something that would take years wasn’t worth it. Even if I’d be looked down on for it, I realized I didn’t care.

At that point, the decision was remarkably easy.

I talked to my committee. They asked me why; they wanted to make sure it wasn’t a spur-of-the-moment decision. I told them I’d been thinking about it for months, and that grad school wasn’t healthy for me. They respected my choice and helped me tailor my project to a Master’s. I’m defending this summer.

If you think a PhD isn’t right for you, I encourage you to explore a Master’s.

The switch isn’t as horrible as you’re thinking. You’ll have an uncomfortable chat with your advisors, and you’ll plan your entry into the “real world” a few years ahead of schedule. For me, it was painless; my family and friends were incredibly supportive, and I feel liberated in a way I haven’t since I started grad school. Your health is far more important than any degree. Seeking help and realizing grad school isn’t for me has changed my life, and I want others to know that it’s a viable option.

Please take care of yourself and consider what makes you happy.

Laura K. Hogan, B.S.
Musings of a brickademic on career prospects for PhDs

Many students enter PhD programs with a plan to be successful in an academic career only to become disgruntled by the realization that faculty jobs are few and qualified candidates are many. I asked academic researcher and creator of Lego Grad Student (who asked to remain anonymous) a few questions about his take on the issue.

The creator of Lego Grad Student got his start making comics in his fifth year of graduate school. He now has a following of over 120,000 via Twitter and other social media platforms. He tackles many topics, both serious and light-hearted. His posts are available at http://brickacademics.com and https://legogradstudent.tumblr.com. You can also follow him on twitter @LegogradStudent.

Q: Now that you’ve finished your PhD, have you gone on to do a post-doc position?

A: Yes, I currently am a post-doc and just recently got a job as an assistant professor.

Q: Did you consider industry jobs? Was it a hard decision to remain in academia?

A: I ultimately went on the academic job market twice. Going through the job market process was so emotionally exhausting and demoralizing the first time around. The second time I went on the market, I told myself I would make one more earnest effort at becoming a professor but if unsuccessful, I would start to look at the private sector. I would spend some late nights looking at other job sites and postings to see what other positions I might be able to take if the academic market didn't work out. Looking back, this was 50% a coping mechanism and 50% a genuine reminder to myself that there are other ways to live a happy life that do not involve being an academic.

Q: Do you think authoring Lego Grad Student (LGS) helped or hindered your search for faculty positions?

A: When I started doing LGS, some colleagues told me I should not make it public because some humorless people on job search committees might find it off-putting. I hoped they were wrong (and I wouldn't want to work in a place that felt that way), but I kept LGS anonymous for a variety of other reasons. That said, it's become pretty clear over time that LGS has helped more than hindered. My own work-life balance has improved a lot, which has helped me become more productive overall. This restoration of a work-life balance was, and continues to be, the greatest long-term benefit I have had from doing LGS. And during one of my flyouts, several grad students who had figured out my identity quietly asked me about LGS. I don't know how much direct influence the grad students had on the decision, but I'd like to think that they appreciated the idea of having a sympathetic person joining their faculty.

continued on page 4
Q: What advice would you give to current grad students?

A: Find supportive people and be a supportive person. It is so important to connect with people with whom you can be completely open about your fears and insecurities about grad school—including the possibility of leaving grad school and pursuing another path. There should be no stigma about needing help or considering an outside option. I was lucky enough to have people like that around me, and I am not sure how I would have fared in grad school without them. I often see comments on my LGS posts from people who feel relief knowing they’re not alone. I’m glad I can help provide them that validation, but there is no substitute for having personal connections with people in your life—people that will share your struggle. It’s not always easy to find these networks, especially if a department is known for being cutthroat, but I would urge everyone to try, even if it’s just one person. It takes reciprocation, so find open people by being open yourself.

To read more about his journey from despairing fifth year grad student to social media microinfluencer, check out his self-authored article available at (https://www.flowjournal.org/2017/10/lego-grad-student/).

Britni Sanchez, B.S.

We will be miserable together

Last issue I wrote an article full of hope and lies. The advice was solid, but it won't make grad school all clear skies and smooth sailing. The truth is, grad school can be a lonely and miserable experience. Experiments will fail, committees will fight, papers will get rejected. Other students will get grants and publications, and you will feel like you don't belong. Worst of all, the people you rely on -- family, friends, significant others, won't understand.

Grad school is such a strange experience that outsiders can’t relate. No, your buddy who did a two-year MBA while working full time doesn’t count. Grad school is weird because we are “pushing the bounds of human knowledge” while “learning to work on our own”. This means that we can’t expect things to work all the time, or even most of the time.

To the uninitiated, this looks like failure. In “normal” jobs, you have a roadmap and deliverables. In grad school, you will feel lost most of the time. This is the point, but it’s hard to explain. When equipment failure and negative results delayed me by a year, my then girlfriend exclaimed, “You haven't done any work for a year?!” You’ll work all the time and your friends will think you’re a slacker for going skiing on a Tuesday.

Go skiing on a Tuesday.

I’m not telling these stories to make you regret grad school. I’m sharing them so you know you aren’t alone. We all feel like imposters. We look around at better projects and easier committees, and think we aren’t good enough. We project outward success (“I make cyborgs!”) and inner criticism (“I’m doing a little thing that might help. Maybe”).

You’re not the only one who feels like an idiot. Every doubt you have about yourself and your work, we’ve felt that too. Build a support network with other grad students. Lab equipment broke for the 50th time? Advisor responded to a 30-page chapter draft with a one-word email? Committee is fighting again? Just need a beer? We are here for you.

You’ll learn humility and perseverance whether you want to or not. If you wanted to succeed just by working hard you should have gone for a different title. You’ll have bad stretches and great moments. It can be awesome. But in the terrible, biblical sense.
Takeaways from the 2018 National Postdoctoral Association Annual Conference

The 16th annual National Postdoctoral Association (NPA) conference was held in Cleveland, OH April 6-8, 2018. The CU Denver/Anschutz Postdoc Association (PDA) and Postdoc Office (PDO) were in attendance to represent the achievements of the University and to hear about exciting new ideas on improving postdoc training from other institutions.

One of the most exciting sessions reported data from a recent survey of US postdocs by Dr. Erica Westerman and Dr. Erin Heckler (currently in review for publication). Their study provides further evidence for the “leaky pipeline” phenomenon in STEM, reporting that while just over half of postdocs are women, and the majority of postdocs are interested in tenure-track faculty positions, only about 35% of current faculty members are women. The survey also highlighted pay discrepancies among postdocs, as they found that international postdocs generally are paid less than their peers. These data emphasize the areas where postdoc training can be improved, and hopefully will be a catalyst for upcoming policy changes.

Another session, led by former CU Anschutz postdoc Dr. Tullia Bruno, now Assistant Professor at the University of Pittsburgh, reported findings from a recent NPA survey on sexual harassment. Dr. Bruno found that 27.8% of postdoc respondents reported being sexually harassed at some point in their career, and that the majority of these incidents occurred during graduate school or postdoc training. These findings emphasize the need to provide resources and support for victims of sexual harassment, and much of the discussion centered on the need to implement programs that hold offenders accountable without putting the careers of victims at risk.

There was also great emphasis on the need for recent PhDs to be strategic when searching and interviewing for postdocs. The best way to ensure your postdoc mentor will be supportive of your career goals is by being proactive upfront: ask questions and set expectations, even as early as during the interview process. Attendees encouraged pointing graduate students towards resources on selecting a postdoc position, such as the NPA’s “Graduate Student Resources for Choosing a Postdoc” at http://www.nationalpostdoc.org/page/GradStudentChoose.

Overall, it was a great meeting full of ideas to help improve postdoc experiences and training. For more information about the NPA meeting, contact the PDA at postdocassociation@ucdenver.edu or read through live-tweets from the conference on Twitter with the hashtag #NPA2018.

Hannah Hathaway, PhD
President, CU Denver/Anschutz Postdoc Association

Funding shake-up abroad: the birth of the NIH in the UK

Imagine witnessing the start of the National Institutes of Health (NIH). In the US, that would’ve meant being alive in 1887, when a one-room laboratory dedicated to serve public health formed the root of what is now the largest biomedical research agency in the world. For the United Kingdom, that day has only just arrived. April 1st, 2018 the UK opened a new organization called the UK Research and Innovation (UKRI) to combine eight formerly independent funding agencies under one (conceptual) roof. The UKRI encompasses the equivalent of the NIH together with the National Science Foundation and the National Endowment for the Humanities, creating a huge re-shuffle of how the UK funds biomedical research.

The opening of the UKRI is strategic, as policy leaders hope to create a unified scientific front in the face of Brexit negotiations. These ongoing negotiations will impact collaborative efforts between the UK and Europe, potentially creating openings for improved relationships with other countries. While the UKRI annual budget of approximately $8 billion represents a large increase in UK’s R&D budget, it doesn’t quite match the scope of the NIH budget of $31.3 billion. In good news for US scientists, the recently approved funding bill aims to boost this number by another $3 billion. Still, the UKRI is hardly starting small. Questions of what the UKRI will become, and how it will compare to the NIH funding system, make it an exciting time for science policy in the UK.

Sarah E. Clark, PhD
1. Why did you decide to pursue your current career?

I was in graduate school when I became interested in forensic science. While studying neuroscience under Dr. Karl Pfenninger, I had the opportunity to learn more about forensic science due to a crime in our neighborhood. At the time (1995), DNA forensics was just beginning so I was at the right place at the right time with the required training to help implement the DNA program at the Denver Police Department. This is a case of following the opportunity and applying my passion for living to my new career.

2. What do you find most rewarding about your current career? What do you find least rewarding about your current career?

The most rewarding thing is dealing with a changing environment daily. My world changes by the minute and that is invigorating. We have a great team in Denver and help people find the truth in criminal matters. I am also a people person and thrive in dealing with people in all types of situations. I welcome confrontation because I think that is how the truth comes out, and it is a direct and honest way to interact with others.

3. How did your scientific training prepare you for your current position? What other training was, or would have been helpful?

I was trained in molecular biology, statistics, and medical genetics as well as many other areas like physics and electronics. My scientific training made me adept in the important skill of critical thinking, which was refined under the amazing intellect and mentorship of Dr. Richard Spritz. I will always be thankful to him for developing my disciplined and contemplative way of thinking, to quickly reach to the roots of problems and derive approaches of efficient solutions. Dr. Spritz also has a command of the English language that few possess. His critical evaluation of my writing improved how I interact with the world, which pays dividends almost daily.

4. What do you think you will be doing 5 years from now?

The short answer is I really don't know. I am retirement eligible within 5 years and that may occur depending on the climate then. The governing philosophy in my career has always been to perform as best in today's role as possible and not worry about what is next. Life has ways of sidelining ambitions that are too forward looking, so I am working to improve the Forensics and Evidence Division here today within the constraints that we face. My research interests continue to be within cancer genetics and forensic science as well as computational genetics -- all are interesting and will be relevant for many years to come.

5. What advice would you give to a current CU Denver/Anschutz trainee who wants to transition to your profession?

The central thing is to understand that you will be working in a more regulated environment compared to a research laboratory in academia. Compliance with ISO 17025 standards requiring detailed documentation and structure is necessary. Some people with academic research backgrounds excel once they are accustomed to these norms, while others are unable to understand the differences with academia. When your experimentations can impact others' lives directly, there is a high degree of accountability requiring careful management and organization. Otherwise, there can be disastrous outcomes destroying careers and reputations of the agency, which take decades to recover.

I would also caution not to expect that the workplace will yield to your past training. What counts is how you implement your expertise. In forensic science you are evaluated with more emphasis on your latest case, not your previous track record. Things here are very immediate, critical and require people who are flexible and great team players.

Interview by Rwik Sen, PhD
More than 50 researchers greeted Colorado lawmakers entering the Capitol Building on January 19th with the aim of raising awareness of the importance of research. For this event, called Capital Investments, colorful posters highlighting the young scientists’ projects lined the rotunda’s walls, and the presenters’ lively voices explaining their work bounced around the room’s large marble structures.

“This is such a great event,” said Hannah Hathaway, PhD, president of the University of Colorado Postdoctoral Association, as she stood amid the array of posters targeting a wide range of disciplines, from biomedical to atmospheric research. “Not only do we get to present our work in a unique way, but we also get to see other research going on in Colorado.”

Early-career scientists representing 11 state institutions of higher education, including CU Anschutz Medical Campus, CU Denver and CU Boulder, attended the event, hosted by the CU Anschutz chapter of Project Bridge. Bruce Mandt, PhD, director of the CU Postdoctoral Office, and Jerry Johnson, the CU contract lobbyist for state relations, helped the group with the event.

“The goal of Project Bridge is to give scientists more tools to succeed by teaching them to communicate outside the world of academia,” said Erin Golden, PhD, president of the CU Anschutz chapter of the national student organization. “We accomplish this through holding trainings, inviting speakers to campus and engaging in a variety of advocacy events like Capitol Investments.”

Golden launched the CU Anschutz chapter last year after coming from Johns Hopkins University, where Project Bridge was founded. Golden hopes Project Bridge will grow to include more events and that Capitol Investments will become an annual event. This year’s event boasted 71 of 100 state legislators, who pledged their attendance as co-hosts. Gov. Hickenlooper declared January 19th, 2018 as “Early Career Scientist Day” to commemorate the event, aimed at showing lawmakers the importance of funding research.

The Career Corner

You Are More Than What You Do

If I asked you to introduce yourself, what would you say? Would you include your research area? Would you mention the techniques that you use? If you’re currently in academia, my guess is that what you study will be an integral part of your introduction to who you are. That’s not all bad, but for your career (and life) satisfaction, you need to understand that who you are is much more than what you do.

Why is this academic identity a problem? Well, I see two main issues. First, when we focus so much on our discipline-specific skills, we lose sight of our broad abilities. When I was a researcher, I clearly saw my western blot skills – what I didn’t see was that at my core, I’m a problem solver, a communicator, a mentor, etc. Those aren’t just skills, that’s who I am, regardless of the specific work that I do.

Second, if we contemplate leaving academia (which about 75% of us will do), it doesn’t feel like we’re just changing careers, it feels like we’re changing who we’re supposed to be. We’ve come to believe that our only valuable contributions are to the academic enterprise. If we no longer do that, then we’ve wasted our training and our lives -- and that is pretty scary. So, despite our unhappiness, we stay put … and further cement our academic identity.

Understanding your true identity won’t just help your happiness, either – it’ll also help you get a job! Everyone interviewing for a position has the technical capability to do the job. What employers are really trying to figure out is how that person fits within the organization or department. If you want to stand out from the crowd, then you need to let them see your personality and values.

So, what are your values? What are your strengths? How can you find out? Self-awareness and reflection are key. You can begin your discovery with personality assessments like the StrengthsFinder, but no matter how you do it, it’s time to get back to YOU. Knowing who you are will both empower you to make meaningful career choices and give you an edge in explaining to potential employers why you are the right person for the job. You have a lot to offer – it’s about time to remember that you’re more than what you do …