On May 18, 2016, it was announced that the United States Department of Labor (DOL) would update the Fair Labor Standards Act's (FLSA) regulations for minimum wage and overtime pay by requiring employers to provide overtime pay for work in excess of 40 hours per week for professional employees earning less than $47,476 a year. This new rule, which increases the previous threshold of $23,660 a year, was originally scheduled to go into effect December 1st.* While many employees of higher educational institutions, such as teachers, coaches, and students, are exempt from the overtime provisions, postdoctoral researchers are classified as professional employees and are not covered by any of these exemptions. This means that universities, hospitals, and institutions that employ postdocs have two choices: either carefully track postdoc's hours and pay overtime accordingly or raise salary levels above the minimum threshold.

In response to the revisions in the FLSA, National Institutes of Health Director Francis Collins announced that the NIH will increase the starting base stipend level to $47,484.3-5 While these new rates only apply to fellows supported by Ruth L. Kirschstein National Research Service Awards (NRSAs), it is expected that many other funding mechanisms and agencies will follow the NIH’s lead. At Vanderbilt University, the Dean of the Graduate School, Mark Wallace, has indicated that all postdocs will need to be paid at least the minimum $47,476 annualized salary. While the NIH has recognized that supporting these increased salaries will present financial challenges to the entire biomedical research field, the organization has said it plans to “work closely with leaders in the postdoc and research communities to find creative solutions to ensure a smooth transition.”

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Meet the Dean: Interview with Dr. Mark Wallace
by Jan Varadarajan, Ph.D.

The separation of Vanderbilt University (VU) and Vanderbilt University Medical Center (VUMC) led to the creation of the new Office of Postdoctoral Affairs (OPA) under the Graduate School to serve and connect all the postdoctoral fellows in different schools and colleges across campus. Dr. Mark Wallace, Director of the Vanderbilt Brain Institute, took office as Dean of the Graduate School earlier this year and also oversees the postdoctoral affairs in this capacity. I had the opportunity to chat with Dr. Wallace about the VU-VUMC split, how it impacts postdocs, and about the new OPA. Read on to learn more about these and to get to know the dean as well!

**What is the primary reason for VU & VUMC to become separate entities?**

**Dr. Wallace:** First, VUMC is in the process of developing a very large health affiliated network, Vanderbilt Health Affiliated Network, and this involves developing partnerships with regional hospitals across 6 or 7 states. It was very cumbersome to build these relationships under the university governance architecture model. Therefore, it was to VUMC’s advantage to have a leaner administratively organizational structure, serve solely as a clinical entity to focus more on healthcare and clinical education and seed all the educational endeavors to VU.

Second, prior to the split, VU was yoked to a very volatile economic structure because the hospital is a very large and expensive entity, and has large fluctuations in terms of its revenue from year to year. The split now provides the university with a very stable structure and there will not be the sort of fluctuations that were there in these past years. So, now the University has more fiscal stability because it now doesn't have to have the local help of the hospital as one of its principal drivers.

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Postdoc Stipend Levels to Be Increased
by Boone Prentice, Ph.D.

On May 18, 2016, it was announced that the United States Department of Labor (DOL) would update the Fair Labor Standards Act's (FLSA) regulations for minimum wage and overtime pay by requiring employers to provide overtime pay for work in excess of 40 hours per week for professional employees earning less than $47,476 a year.¹ This new rule, which increases the previous threshold of $23,660 a year, was originally scheduled to go into effect December 1st.* While many employees of higher educational institutions, such as teachers, coaches, and students, are exempt from the overtime provisions, postdoctoral researchers are classified as professional employees and are not covered by any of these exemptions.² This means that universities, hospitals, and institutions that employ postdocs have two choices: either carefully track postdoc’s hours and pay overtime accordingly or raise salary levels above the minimum threshold.

In response to the revisions in the FLSA, National Institutes of Health Director Francis Collins announced that the NIH will increase the starting base stipend level to $47,484.³⁵ While these new rates only apply to fellows supported by Ruth L. Kirschstein National Research Service Awards (NRSAs), it is expected that many other funding mechanisms and agencies will follow the NIH’s lead. At Vanderbilt University, the Dean of the Graduate School, Mark Wallace, has indicated that all postdocs will need to be paid at least the minimum $47,476 annualized salary. While the NIH has recognized that supporting these increased salaries will present financial challenges to the entire biomedical research field, the organization has said it plans to “work closely with leaders in the postdoc and research communities to find creative solutions to ensure a smooth transition.”³⁵

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Antibiotic-resistant bacteria have been emerging at alarming rates in recent years, putting the benefits of modern medicine, such as organ transplantations, chemotherapy, and general surgery, at substantial risk. One such bacterium, Clostridium difficile, is the most common hospital-acquired pathogen in the United States and was classified as an “Urgent Threat” by the Centers for Disease Control and Prevention (CDC) in 2013. Patients taking antibiotics may become susceptible to C. difficile infection (CDI) due to a loss of healthy organisms in the gut. Interestingly, non-antibiotic-associated CDI cases are also on the rise, suggesting that other environmental, nutrient, and host factors influence disease susceptibility.

One such factor that can also disrupt gut microbiota and cause susceptibility to infection is diet, specifically the level of dietary metals. For example, zinc (Zn) acquisition is an essential nutrient for many pathogens and dietary Zn is linked to an increased risk of some gastrointestinal infections. While dietary metals are known to cause susceptibility to numerous infections, they have been largely unexplored in gut microbiota homeostasis and C. difficile pathogenesis. A recent study led by Dr. Joseph Zackular in Professor Eric Skaar’s laboratory at Vanderbilt University Medical Center explored the effects of dietary Zn on microbiome diversity, CDI susceptibility, and CDI severity.

Zackular and coworkers developed mouse models of CDI to examine the effect of Zn supplementation on CDI. Using inductively coupled plasma mass spectrometry (ICP-MS) and next generation sequencing, they found that increased levels of dietary Zn alter Zn levels in tissue and dramatically reduce microbial diversity. Histological analyses of infected murine ceca tissue confirmed that excess Zn intensified CDI severity and decreased the minimum threshold of antibiotics required for the mice to be susceptible to infection. This severity and susceptibility was shown to be the result of an increase in C. difficile toxin activity and altered host immune response.

This work demonstrates that CDI is not only influenced by antibiotic use, but also by environmental and host factors. Although their study focused on animal models of CDI, Zackular believes that these findings will have significant implications on how patients at high risk for developing CDI are treated in clinical settings. “These findings caution against megadosing nutrients, such as Zn, as this excess supplementation may have unintended consequences on the gut microbiota and decrease resistance to infections,” said Zackular. In an era of increased societal awareness about the threat of antibiotic-resistant bacteria, this work adds to the growing evidence that dietary metals and metal availability are also important factors influencing infectious disease.

References:
Meet the Dean: Interview with Dr. Mark Wallace

by Jan Varadarajan, Ph.D.

How does this split impact the postdocs at Vanderbilt?

I was part of the graduate education study group that was tasked by the provost to look at the structures for graduate education and postdoctoral training here on campus. Everyone on the committee was unanimous in that there was a very fragmented structure for the postdocs in campus. While the BRET office has done a wonderful job in supporting the lion's share of the trainees in the biomedical space, the postdocs across the other schools were largely disconnected. For example, postdocs in the college of arts and science, engineering, and now an increasing number in Peabody College, did not have any framework. So, it seemed most sensible to now bring all the biomedical and non-biomedical postdocs under one umbrella, that of the graduate school. The advantage of this is the idea of creating a graduate sense of community across all the schools so that postdocs in engineering feel more tightly connected to the postdocs in medicine and arts and science.

What new initiatives is the new OPA planning for this academic year?

The top priority for the OPA this year is community building. A lot of it is going to revolve around making sure that we have lots of opportunities where we can bring the postdocs together as a community, have them meet one another, have them interact with one another about their research, career interests etc. We would also like to continue to do all the functions and events the BRET office did, the social events, picnic and postdoc symposium, specifically targeting Alumni Hall as the new home for the postdoc events.

We have also identified within each of the schools and colleges, faculty members who will work with the OPA to serve in an advisory capacity. There are two advantages to this postdoc advisory council: 1) there are a surprising number of commonalities (between the different schools/departments) and the advisory council can work together to make sure that best practices are shared across the schools; and 2) when there are discipline specific questions, we will now have somebody who is uniquely qualified within the schools to address those questions as well as have an open line of communication about what the individual challenges are.

What is your advice for a wholesome and beneficial postdoc experience at Vanderbilt?

The unique advantage of VU is diversity of the community here. We are at a place where we have an enormous advantage in terms of interdisciplinary culture. Allowing our postdocs to take advantage of the interdisciplinary science/culture that we have here is going to prepare them to go out into the world and be more successful than they would be if they worked within one discipline. My advice to postdocs here is to try their best make use of this interdisciplinary diversity to get a fruitful and successful experience during their fellowship. If you come and don't make use of the interdisciplinary diversity, then you have missed out on an opportunity to broaden your training profile.

Fun facts about the Dean!

Originally from: Philadelphia and grew up there. I was the first one in my family to go to college. I started out with the aim of becoming a medical doctor but caught the bug for research during my pre-med and realized I would be much happier doing research.

Favorite super hero: Spiderman. I like the idea of using radioactivity to create good mutations!

Likes about Nashville: Scale of the city, it's a much more manageable atmosphere here than Philadelphia. Nashville has, however, gone through a remarkable period of growth and renaissance with great restaurants, entertainment and country music. My wife and I enjoy it a lot here!

Outside work interests: I love to read. (Check out Dr. Wallace's recommendations in the Good Reads section)

Current work-life balance (on a scale of 1-10, 10 being highest): "6" since I took over the position of Dean of the graduate school. It will probably take a year or two to get my head around this job and then it might be better.

One thing that Dr. Wallace is unwavering about is his coffee! He takes it with cream and sugar but it must be Espresso! He says he has also owned an espresso machine wherever he has been!

Postdoctoral Association Announcements

SAVE THE DATE!!
11th Annual Postdoctoral Association and Shared Resources Symposium
When: April 19, 2017
If you would like to volunteer to help plan the 11th Annual PDA and Shared Resources Symposium, please email Loren Lapointe at loren.m.lapointe@vanderbilt.edu

CALL FOR ARTICLES!
Would you like to contribute an article or a topic idea for the postdoc newsletter?
The postdoc newsletter committee invites article contributions from postdocs who would like to share their experience, a story, accomplishments, food recipes, good reads or other informative topics. Please contact jan.varadarajan@vanderbilt.edu to contribute your entries.
It's the holiday season, when family, friends, and acquaintances stand around punch-bowls and dessert tables and inquire: “so, what do you do?” As postdocs, we often work in fields closely aligned with our PhD research, and “I'm studying X” becomes “I am an X-ist/ian/er.” But what answer applies when one’s graduate research and postdoc work seem only tangentially related?

In May, I completed a PhD in Ancient Mediterranean (Greek and Roman) Archaeology at the University of Virginia. As an archaeologist, I used material and visual evidence to shine a light on the parts of history that are left out of - or distorted by - literary narratives. My dissertation, for example, studied how musicians were represented in 5th and 4th century BCE South Italian (Apulian) figure-decorated vases. By analyzing the iconography (literally, “image-writing”) of the vases in my dataset, I demonstrated that vase-painters had many different motivations to create representations of contemporary musical culture which did not always align with actual musical practice. My research contributes to the growing body of evidence about ancient Greek and Roman music, as well as demonstrating that ancient images cannot be treated as direct illustrations of real life.

This August, I came to Vanderbilt on a Council for Library and Information Resources (CLIR) postdoctoral fellowship in data curation for the sciences and social sciences. Here, my work contributes to the CLIR mission to “forge and strengthen connections among library collections, educational technologies, and current research.” Working with the Digital Scholarship & Scholarly Communications team in the Vanderbilt libraries, I offer data curation services to all members of the university while exploring new avenues in 21st century academic librarianship.

It may seem odd to move from studying ancient pottery to working in the expansive world of data curation, digital scholarship, and librarianship. Indeed, it sometimes feels like a huge conceptual leap, as I spend my days learning new programming and encoding languages, exploring the behind-the-scenes work of librarians, and memorizing a litany of unfamiliar (and lengthy) acronyms. Nevertheless, I think of the relationship between my archaeological research and postdoctoral work in data curation as a move from the concrete to the abstract. In order to answer my dissertation research questions, I spent a substantial amount of time cleaning and standardizing my data and modeling all of the relationships between data types. Actually putting words on paper was practically an afterthought, once I had figured out how to accurately query my restructured dataset. Now, as a CLIR postdoc, I get to grapple with the methodological issues which my dissertation research brought to light - namely, how to manage large, unwieldy datasets, ensure their long-term preservation and (re)usability, and define best practices in data management for new and ongoing projects. If you would like to leverage my research experience to help you organize, model, think about, and disseminate your data, come by and say ‘hi’ at one of our Digital Scholarship Workshops, or feel free to drop me a line anytime.

Opportunities at the Center for Science Outreach

by Loren LaPointe, Ph.D.

Postdoctoral fellows and trainees at Vanderbilt are offered a plethora of opportunities to diversify their training. I discovered this in August when I approached Dr. Virginia Shepherd about possible teaching opportunities with the Center for Science Outreach (CSO). The CSO was actually looking for a postdoc to help co-teach the Day of Discovery program; a middle school STEM program held on Vanderbilt’s campus. With my research advisor in the Department of Biochemistry, we worked out a dual appointment so that I could add teaching to my postdoctoral training. Now, I teach in the mornings and do research in the afternoons. I have added a challenge to my day, but I am still engaged in my research studying the molecular basis of Alzheimer’s disease. I am also able to provide an unique experience to students, who now interact with scientists on a weekly basis. In the Day of Discovery, we are able to explore any STEM projects that the kids are interested in, so it provides an experience that is above and beyond their traditional school setting and was much more than I was offered when I was a 7th grader.

This dual appointment has been a valuable experience for me as I start to transition out of academic research and into an alternative career. That new career is still being worked out, but I hope to become a policy analyst with a focus on K-12 STEM education. Let this be a lesson to all Vanderbilt postdocs who are looking to pursue a “nontraditional” career with their PhD: don’t be afraid to ask about opportunities that might add valuable experience to your training. We are all going down different roads and our training is going to look different from postdoc to postdoc. The Postdoctoral Association (PDA) can help be a bridge to these types of opportunities.
Postdoc Stipend Levels to be Increased

by Boone Prentice, Ph.D.

Underlying this discussion of postdoctoral compensation is the more existential debate about the future of the postdoctoral position. Should there be limits set on the length and number of postdoctoral terms? Should the overall number of postdoctoral positions in fields be capped? Should the composition of labs (i.e., postdoctoral fellows versus permanent staff positions) be altered? While there are varying positions on these proposals, the FLSA ruling may inadvertently end up driving changes in the general postdoctoral workforce. I recently sat down with Dr. Aaron Bowman, Associate Professor of Pediatrics, Neurology, and Biochemistry and Director of the National Institute of Environmental Health Sciences (NIEHS) T32 Training Program in Environmental Toxicology at Vanderbilt University, to get his opinion on how the increases in stipend levels would affect the scientific field at large.

What is your opinion on the NIH’s decision to increase postdoc stipend levels to a starting base salary of $47,484?

Dr. Bowman: This was a critical decision since, without it, many labs would be unable to take on postdoctoral fellows supported by T32 or NRSA stipends (and similar support) due to an inability to find non-federal dollars to make up for the salary discrepancy between previous NIH levels and the new DOL salary rules. Ironically, without this change, many labs may have had to advise trainees that they can’t afford for them to get a training grant or apply for their own funding.

How has/will the new postdoc salary level demands affect you as a PI in particular?

Dr. Bowman: The increase itself may have only a measured impact on budgets for full-time postdoctoral fellows. However, the new rules that part-time postdocs are not exempt for the minimum annualized salary of $47,467 has already created a problem for a graduate student that wanted to stay on part-time in my lab while she ramped up other professional efforts. Assuming other agencies follow the NIH and modify postdoctoral stipends to follow the new DOL guidelines, the potential challenges of needing to find non-federal dollars to cover any discrepancies should be minimal.

What impact do you think these financial changes will have on postdoc positions and the field in general?

Dr. Bowman: It is foreseeable that, as salaries of postdoctoral trainees rise, the demands and expectations on these positions will also rise. Further, labs may be less inclined to ‘take a chance’ on a postdoc whose background is not quite the right fit – thus the number of positions may decline and competition for these positions may become more stringent.

“UPDATE: Complicating this matter further, on November 22, 2016 a federal judge in Texas issued an injunction against the new regulation, suspending its implementation.” While the injunction only temporarily halts the regulation until the judge can issue a ruling, many expect the regulation to be struck down. It is unclear what legal action the Department of Labor may take in the final days of the Obama Administration. Support for the new FLSA regulation had already been cast in doubt with the election of Donald Trump as president on November 8th. It is unclear how this process will proceed and whether any legislative middle ground may be agreed upon by the Trump administration and the Republican Congress, both of which have criticized aspects of the regulation. As many large employers have already implemented pay raises to comply with the regulation, there may be some support for a compromise. However, the NIH has pledged to stick with its plan to raise the minimum postdoc salary and many other institutions have followed suit. As of this writing, there has been no official report on any policy changes Vanderbilt University will enact in light of the recent injunction.

References:
2. B.L. Benderly, “Postdoc pay to increase due to new overtime rule,” Science May 19, 2016, DOI: 10.1126/science.caredit.a1600081.
2016 Postdoctoral Association Social Events

PICNIC IN DRAGON PARK

HALLOWEEN SOCIAL

NETWORKING EVENTS
My Coffee Break with New Faculty: Dr. Krystle Lang Kuhs

by Laura Daniel, Ph.D.

Krystle Lang Kuhs, Ph.D., is a new tenure-track assistant professor of medicine at Vanderbilt University Medical Center, who began her appointment April 1st, 2016. Prior to her appointment at Vanderbilt, Dr. Lang Kuhs did a post-baccalaureate at The National Cancer Institute (NCI). This was followed by graduate work at the University of Pennsylvania where she obtained her Ph.D. She then returned to NCI to do her postdoctoral fellowship. In her lab at Vanderbilt, her primary research interest is prevention of virus-associated cancers. Recently, I had the pleasure to speak with Dr. Lang Kuhs. I asked her questions about the application process including how she prepared and her thoughts on negotiating an offer.

As a postdoc, looking for a faculty position can seem very daunting. Where do we even begin?

When it came to applying for faculty, my philosophy was “I might as well.” Spread a wide umbrella and apply to several positions even though they may not seem directly related to your work.

Make sure as many people as possible know you are on the job hunt. This begins by having a discussion with your mentor. Faculty members have connections at other universities and it’s not uncommon for them to be approached by these connections asking if they know anyone on the job market. I had my résumé disseminated to several places using this approach.

I also found job openings by leveraging the resources of my postdoc office, which was similar to the BRET office. I found the Vanderbilt opening on Epimonitor.net after a colleague suggested the site. Initially, I didn't apply since I didn't think I fit the position. Ultimately, I was convinced to apply after attending a conference, ASPO (American Society for Preventive Oncology). I met a tenure track professor from Vanderbilt that told me I was a good fit for the position and encouraged me to apply. This is not an uncommon, I have spoken with several people that applied to a position that they heard was open at a conference. Talking with people at conferences is also a great way to become familiar with the resources available at the institution you are applying to. Having this knowledge will help in your job talk.

Of note, don’t be surprised when you don’t get a rejection letter. A lot of universities will not send one, even if they are not considering you for the position.

How did you prepare for your interviews?

In my job talk, I had to give a seminar about my past and future research. The most helpful thing I did to prepare was practice, practice, practice. I had a good network of people that let me practice my talk multiple times and I’m glad I did. Half-way through my job talk, the power went out. I had the choice to either stop talking, losing my chance to convince these people to hire me, or to continue from memory. Fortunately, I had practiced so much I was able to finish the talk, in the dark, without any slides.

What was unexpected about the interview process?

It wasn't as hard as I thought. You know your data better than anyone and no one will try to trap you. They are just trying to see if it is a good fit for both of you. The hardest part is getting the interview.

Do you have any tips for negotiating an offer?

Negotiating points include salary, start-up funds (the most flexible), moving expenses, a position for your partner, and office space (I asked for a window).

If you are going to try and negotiate anything, I would suggest startup funds. It is very difficult to use start-up funds in the first year and several places have a use-it-or-lose-it policy. If that is the case, you should ask for a smaller amount during the first year and have the funds increase over the next couple years. This will give you the same amount of total funds, but it will be spread out over a few years.

Salary is a hard thing to negotiate, but if you are going to try, it would be helpful to know what others in a similar position are making. Also, know the cost of living differences between where you came from and where you are going. You want to make sure that, if you are moving to a place that has a higher cost of living, you will not have a decrease in your standard of living.

What was the most difficult part of the whole process?

I had the first interview pregnant and the second a few weeks postpartum. I thought going to the interview 8+ months pregnant would be seen as a negative. Instead, one interviewer later contacted my mentor to say that it showed my strong commitment to my career.

Any last words of advice?

Apply for as many awards – internal and external – as you can. Apply even if you think you won’t win. Apply for a K award as a postdoc. NIH is phasing out some of these awards for early faculty.

Also, don’t worry about work/life balance when you are thinking about a new career. If it is something you think you’d like to do, just jump in. You can figure things out as you go. Don’t close any doors by making a choice out of fear.
Congratulations Postdoctoral Fellows!

Dr. Danila Barskiy is a postdoctoral fellow in Dr. Ed Chekmenev's lab of the Vanderbilt University Institute of Imaging Sciences. Dr. Barskiy has had two first authored manuscripts accepted to be published, and both his articles have also made it to the cover of the journals. Dr. Barskiy's research focus is on the development and applications of hyperpolarization techniques for nuclear magnetic resonance spectroscopy (NMR) and imaging (MRI).


*Abstract: Parahydrogen-induced polarization (PHIP) is an NMR hyperpolarization technique that increases nuclear spin polarization by orders of magnitude, and it is particularly well-suited to study hydrogenation reactions. We show that hydrogenation products prepared by PHIP can be irradiated with a weak alternating magnetic field and consequently efficiently detected at low magnetic field. The detected hyperpolarized signals from several reaction products at tens of millimolar concentrations were enhanced by 10000-fold.

Dr. Ralph Hazlewood is a postdoctoral fellow in the Kuchtey Lab of the Vanderbilt Eye Institute. Dr. Hazlewood was selected for a platform presentation and received a full travel award for the National Organization for professional advancement of Black Chemists and Chemical Engineers (NOBCChE) conference in November in Raleigh, North Carolina.

The NOBCChE Advancing Science Conference Grant (ASCG) offers registration and lodging to scholars (undergraduate, graduate or postdoctoral) attending the annual conference. There is no fixed amount as travel grant winners have their accommodations paid for up front without the need for reimbursement. The award is offered to those who present a poster or talk at the conference and have shown scientific promise in the submitted abstract.

Dr. Huzaifah Salat is a postdoctoral fellow in the Abdel-Kader Lab of the Division of Nephrology and Hypertension. Dr. Salat is a recipient of the American Society of Nephrology (ASN) Kidney Students and Residents (STARS) grant. The goal of ASN Kidney STARS program is to stimulate interest in nephrology careers in medical residents and trainees, who possess a strong intent to pursue a future career in nephrology. In addition to tailored events and networking opportunities, this program provides travel support, complimentary registration to attend the ASN Annual Meeting at Kidney Week, in Chicago, IL, and complimentary membership to the society. To be considered for the award, Dr. Salat had to submit his CV and an essay justifying his reasons for attending the meeting and why he deserved this travel grant.

This award follows Dr. Salat's nomination as the first Vanderbilt medical doctor to be selected as one of 6 finalists of the ASN 2016 Innovation in Kidney Education Contest for developing a nephrology board game "Revenge of the Nephron". To validate this game as a teaching tool and assess the learning outcomes, he is currently serving as the principal investigator of a multicenter study, which aims to study the effectiveness of this game in increasing knowledge of nephrology among medical residents.

Please join us in congratulating these postdocs and wishing them success in their endeavors!
Slacker’s Guide to Work-Life Balance
by Laura Daniel, Ph.D.

Between juggling work and home lives, I always have more to do than I have time. Some of this is my own fault by agreeing to do pointless and thankless tasks such as writing an article about work-life balance. Some of it is unavoidable like cleaning your home and grooming yourself unless you want to live in a place that looks post-apocalyptic and smell as if you just returned from Bonnaroo (although that would reduce your social obligations). So how does one create a happy work-life balance and is it something real or is it something that has been created by the liberal media to make everyone miserable for not being able to accomplish it? I’ll give you my two cents worth but it’s probably not worth the ink (or pixels) that it is written with. To make the article as enjoyable as possible, I’ll tell you in list format because Cracked.com told me everyone loves a list.

4 THINGS TO DO TO ACHIEVE OPTIMAL WORK-LIFE BALANCE

4. Set boundaries. Like that creepy uncle everyone has, setting boundaries is necessary for creating an enjoyable work-life balance. Trying to segregate work-life into two completely separate aspects of your day can lead to unhappiness in both. However, just like you have to see your creepy uncle at holidays work will spill over into your personal life and vice-versa. The key to combating this is to set boundaries and try not to create a scene when your uncle says something inappropriate.

Avoiding phone time when you are at home or out with friends will allow you to focus your attention. Checking work email can distract your time off. For example, I took yesterday off but made the mistake of checking my work email and encountered a problem that could not be fixed by dropping everything and going to work; however, I let it ruin the rest of my day. If you let problems at work creep into your time off, you will never achieve a happy work-life balance, regardless of how few hours you put into your work week.

The same principle applies to home spilling over into work. When you are at work don’t worry about personal obligations you can not control while at work.

3. Be productive. I know many of you, like me, have fallen into the trap of equating long hours with productivity but that is just not true. When I hear that a colleague worked until midnight, the guilt switch flips; however, working longer hours does not always mean that you will accomplish more. Just like an electric car you need time to recharge. Stop by Cracker Barrel and recharge both your car and yourself.

If you have a lot to get done at work on a particular day/week/month do not let that be a reason to resign yourself to staying late. If you assume you are going to have a 15-hour day you might not be as efficient as possible. Try an experiment, have a week or two in which you work no more that 9 hrs/day, regardless of what is going on. You will be surprised at how much more focused and productive you are at work freeing up more time during in the evening for something fun like happy hour or a nice walk in the park.

Studies have suggested that the optimal work week is between 35-40 hours and that your productivity goes to *censored* after 55 hours. Being able to accomplish the necessary things in this amount of time might require not completing everything that is on your to-do list. However, is everything on your to-do list also on your must do list? This brings us to setting priorities.

2. Set priorities. So many things get piled on us that it can be very overwhelming at times. Make a list of all the things you think you need to accomplish. Prioritize your list and determine the items that are most important to you and the items that are necessary to complete. Don’t let the length of time required for a certain task affect the order you complete your list. Once you realize that all the things on your list don’t have to be accomplished it will free up time for the more enjoyable items. This list should represent not only work items but also items that are important for your sanity. Once you have your list organized it is time to get organized and create a calendar.

1. Create a Calendar. Creating a calendar can help ensure that you make time for both work and home. Divided the day into work and life. Remember, in order to be most productive do not typically schedule more than 50 hours/week or 10 hours/day for work. In addition, schedule in at least 7.5 hours of sleep and 1 hour for a personal item. Include the small stuff on your calendar. Warren Buffett will schedule in time for a haircut. AOL CEO Tim Armstrong and CEO of LinkedIn schedule uninterrupted time for thinking into their day.

If you are career-minded, put networking time into your calendar by adding a pertinent time slot in the week to reach out to someone about meeting up for coffee. Also, your health is important and exercise can make you feel better. I find that exercising in the middle of my work day helps me be more productive during the second half of my day. I can skip my afternoon coffee and still get things accomplished.

Working 80 hours per week is not the secret to success, hard focused work is.

Creating a positive work-life balance is about time management and realizing what are reasonable expectations for you, both personally and professionally.
Policy Fellowships: Gateways to Science Policy Careers
by Daniel O’Brien, Ph.D.

Science policy careers offer an opportunity for researchers to utilize their firsthand scientific knowledge to impact policymaking. But how would a scientist, particularly a Vanderbilt researcher, prepare for and attain a science policy position? Also, how are these scientists using their expertise to impact policy? To answer these questions and learn more about science policy careers in general, I interviewed two former Vanderbilt alums, Dr. Barbara Natalizio (AAAS Science and Technology Policy Fellow at the NSF) and Dr. Stephanie DeLuca (AAAS Congressional Fellow), who have entered careers in science policy through parallel routes.

What led you to pursue a career in science policy?

As a postdoctoral fellow in the Department of Cell and Developmental Biology at Vanderbilt, Barbara became interested in policy through her experiences with the Vanderbilt University Postdoctoral Association (PDA). Barbara’s tenure as senior co-Chair of the PDA coincided with the budget sequestration of 2013. As a result, she became very interested in how federal funds are allocated and prioritized. She also became involved with the National Postdoctoral Association (NPA) and was inspired to make change as she met others interested in the challenges that face postdoctoral scholars.

As a graduate student in the Chemical and Physical Biology Program at Vanderbilt, Stephanie became interested in science policy through interviewing one of the panelists presenting at the 2010 BRET Career Symposium, Dr. Larry Kerr. After interviewing him about his experience in science policy for a quarterly newsletter at Vanderbilt, she pursued activities focused on honing her communication skills. In particular, she volunteered with Aspirnaut helping to teach rural students about science.

How did you utilize the resources at Vanderbilt to help you become a competitive candidate for a science policy fellowship?

Barbara and Stephanie utilized the BRET career development office and opportunities at Vanderbilt to further their career aspirations. Both cited the annual Career Symposium as a great resource that they used to learn more about scientific career opportunities. In addition, Stephanie attended the brown bag lunches sponsored by the BRET office where she met scientists in a variety of fields and learned about their professions. Barbara and Stephanie also took advantage of the Aspirnaut program in order to refine their communication skills while teaching school-aged children about science. Beyond this, Barbara participated in the TechVenture Challenge, where she gained valuable experience with interdisciplinary teams and with communicating science to non-scientists. Stephanie worked closely with the Director of Aspirnaut, Dr. Hudson, to develop online science communication curriculum for the American Society for Biochemistry and Molecular Biology.

What was the most challenging aspect of moving from the bench to the policy fellowship?

Both agreed that science policy careers are a complete change from research. Barbara noted the different mindset and fast pace of policy work as deadlines are much quicker and priorities are in flux. Moreover, she mentioned the AAAS professional development program, which is designed to hone policy, communication, and leadership skills. In particular, Barbara commented on her involvement with the AAAS S&T Fellows Affinity Groups, in which she and like-minded fellows focus on addressing issues surrounding policy topics of shared interest such as higher education and research evaluation. Stephanie likened starting out in policy to starting graduate school, where you learn entirely new material very quickly. In particular, she remarked that fellows must learn how various factors and differing points of view impact policymaking and that science and data are not the only things that inform decisions.

What do you do in your current science policy position?

Barbara began her AAAS S&T Fellowship with an interest in improving education and career development for graduate students and postdoctoral fellows. As a fellow serving in the Division of Graduate Education, her work aims to support higher education reform in the STEM fields. In the first year of her fellowship, she focused on gaining an increased awareness about how evaluation can determine program effectiveness, efficiency, and impact.

Stephanie joined the office of Senator Elizabeth Warren in early October 2016 as the Biophysical Society / AAAS Congressional Science and Engineering Fellow. In this position, she covers healthcare and education policy, focusing on issues involving drug prices, FDA regulation, NIH funding and policy, Medicaid, home and community based services, as well as “a smidge” of higher education policy. She meets with constituents, lobbyists, and advocates and aims to figure out how to work together to achieve common policy goals. Previously, as the American Chemical Society Science Policy Fellow, she worked in the ACS Office of Public Affairs, where she liaised between ACS members and federal agencies, such as NIH, helped draft policy statements, and conducted an independent policy project on synthetic biology.

What advice do you have for Vanderbilt trainees interested in science policy?

Barbara and Stephanie both agreed that trainees should get involved in activities outside of the lab to further their science policy career aspirations. Barbara highlighted the importance of showing initiative and demonstrating an ability to use your skills to give back to the community. In applying for science policy fellowships, Stephanie emphasized that trainees should think broadly about their research focus and how they can apply this expertise in the policy realm.
Could you tell us a bit about your background and your research?

I came to Vanderbilt from Russia shortly after finishing my PhD. I graduated from Novosibirsk State University, or NSU, where I studied Chemistry. Novosibirsk is the third biggest city in Russia located in the heart of Siberia, and yes, it can get very cold there with temperatures ranging from 90°F in summer to -30°F in winter. Nevertheless, Novosibirsk is a big cultural, industrial and scientific center of the country. I started my PhD as a chemist working on Nuclear Magnetic Resonance (NMR) spectroscopy to investigate chemical reaction mechanisms and catalysis. In my PhD work, I used NMR to study hydrogenation reactions using Parahydrogen-Induced Polarization (PHIP), which enhances NMR signal for the observation of species formed in very low concentrations.

What prompted you to pursue a postdoctoral fellowship in the U.S.?

Since my undergraduate years, I realized that science is really what I like and potentially want to do during my all life and that I need to work abroad in order to acquire more knowledge and experience to start my own lab. Fortunately, while I was still a Ph.D. student, my lab started a collaboration with Ed Chekmenev, Professor of Radiology at Vanderbilt, who wanted to use PHIP for hyperpolarized Magnetic Resonance Imaging (MRI). After a short summer visit to Vanderbilt in 2013, I started considering going here as a postdoc and, luckily, Ed was happy to invite me to join his group.

As a postdoc, I shifted the focus of my work from solving fundamental problems in chemistry and physics to the application side: how can I produce hyperpolarized molecules in seconds which can be injected in animals or humans in order to monitor metabolism by MRI in vivo? To elaborate on this briefly, MRI relies on the ability to detect alignment of magnetic atomic nuclei with an applied magnetic field, which normally is very low — on the order of 0.0001% to 0.0005%. In the context of MRI, the term hyperpolarization refers to a procedure that drives nuclei, temporarily, into a significant alignment along the external magnetic field, increasing signal. PHIP is one such technique, and I work towards bringing fundamental knowledge I obtained during the course of my PhD into a real clinically relevant technology.

What was the best/most exciting part about transitioning to a postdoc position in the U.S.?

The most exciting part is the chance to meet new people. You never know where you will end up in several years, but you are sure that the people you meet will become friends for the rest of your life. This is why I believe that living in new environments is necessary to broaden the borders of your perception. I also enjoy traveling, and since I came here, I have visited NYC, Niagara Falls, New Orleans, Chicago, and many other interesting cities and places. Here in Nashville, I enjoy an atmosphere of music and culture. Visiting music concerts, art exhibitions, sports games — all these kinds of activities are amazing and bring me a lot of joy. However, it is also worth mentioning that I am gratified by the scientific workflow in the U.S. Indeed, here you can be very fast and productive, especially because of the ease with ordering reagents and lab equipment. Sometimes, you can order something and it will be on your table the next day. This is really exciting!

What was your biggest challenge as a postdoc coming from abroad?

One challenging thing was to organize my life. When you come here, you do not have a car (attention postdocs from abroad, you will really need it!), driver's license, bank account, social security card, etc. And when you go to one place trying to get, say, a social security card, you are asked about driver's license and bank account. At the bank, they ask you about driver's license and social security card and so on. At the beginning, it seemed like a vicious circle. Luckily, I made a bank account first and then, step-by-step, completed everything else.

What advice would you give new international post-docs who are looking to make a smooth transition to post-doc life at Vanderbilt?

First, learn English well, by watching more movies in English and learning about region-specific things like what a southern accent sounds like. Second, try to communicate and build a network here. People are really friendly, and they like to help and share their experience regarding anything you may ask. This is important no matter what you would like to do after your postdoc. Third, be prepared to work a lot. Being a postdoc is not a relaxing time: this is the time when you start your career and depending on how well you start it will depend on how far you can jump.

Second, do not be shy, try to participate in various activities. Investigate the VU website beforehand and make a plan of what you should do once you are here. This may save a lot of time which you can spend getting into your new working environment or exploring interesting places here. And if you are willing to do a postdoc in U.S., I would, of course, recommend doing so, especially at Vanderbilt. I believe that, despite the political instability in the World, the exchange of ideas and experiences is the only way to improve the situation and, in the long run, to make everybody live better!
RECOMMENDED READS

*“The Unbearable Lightness of Being” by Milan Kundera is set in 1960s Prague and tells the struggles of four individuals with love, politics, and the military occupation of their country.

*“One Hundred Years of Solitude” by Nobel Laureate, Gabriel García Márquez tells the story of the rise and fall of a mythical town of Macondo through the history of the Buendía family.

“Dear Committee Members” by Julie Schumacher is a superb satire of the current state of academia, as penned by a college professor in his letters of recommendations.

“We Are Not Ourselves” by Mathew Thomas is a saga of three generations of an Irish-American family living in Queens, New York, their dreams and the effect of Alzheimer's disease on a family.

“When Breathe Becomes Air” by Paul Kalanithi is a memoir about a young neurosurgeon faced with terminal cancer diagnosis.

*These entries were recommended by Dean Mark Wallace.

“Super Easy Mincemeat Pie”
by Laura Daniel, Ph.D.

Prep time: 10 min
Cook time: 40-45 min at 350°F

Ingredients:
- Mincemeat (you can find it in the baking aisle)
- 2 Apple granny smith apples diced
- ½ cup of chopped pecans
- Pillsbury double pie crust (room temperature)

Method:
1. Mix the first three ingredients together in a medium bowl.
2. Place the first layer of pie dough in a pie pan.
3. Spread the mincemeat mixture over the pie dough.
4. Top with second layer of dough.
5. Pinch ends of pie dough together.
6. Cut a few vent holes in the top layer and bake at 350°F.
7. Allow to cool completely before cutting and serving.

About this Publication

POSTDOC TALK

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A publication seeking to highlight events and resources of relevance to the postdoc community and also to share the accomplishments of University and Medical Center postdocs with the broader Vanderbilt community.