Intramural Research Traineeship Award (IRTA) Fellow Program
Application Tips from UMD Alumni

Featured alumni:
Dominique A. Phillips, B.S. Psychology, Class of 2017
Postbaccalaureate IRTA- Section on Development and Affective Neuroscience- National Institute of Mental Health, NIH
Mary V. Tipton, B.A. Psychology, Class of 2018
Postbaccalaureate IRTA- Office of the Clinical Director- National Institute of Mental Health, NIH

What is the IRTA Fellow program?
The NIH Postbac IRTA program is a fellowship that provides recent college graduates who are planning to apply to graduate or professional (Ph.D/Psy.D medical/dental/pharmacy/nursing/veterinary, etc.) school an opportunity to spend one or two years performing full-time research at the NIH. Postbac IRTAs work side-by-side with some of the leading scientists in the world, in an environment devoted exclusively to biomedical research. It provides both hands on and independent research experience as well as support and resources for applying and interviewing for graduate and professional programs. (Dominique Phillips)

IRTA fellows work internally at an NIH campus (i.e. not at one of the external sites that are providing funding to a university or non-NIH hospital settings) and are paid a set stipend (the award) that is allotted monthly. Fellows are also eligible for health insurance benefits (either individual or family coverage) through the Foundation for Advanced Education in the Sciences (FAES) should they choose to enroll. Insurance benefits are paid by the institute on behalf of the fellow.

Strengths of the program for Psychology majors (Mary Tipton)
The IRTA program, in my opinion, provides the opportunity to learn more about a research topic that you were not otherwise able to explore or learn skills you didn’t have the opportunity to learn in undergrad.

- Post-bacc research positions are usually encouraged to recent psychology major graduates who are working towards a Ph.D/Psy.D program but do not have enough “research experience” (i.e. skills, interests, mentors to provide credible letters of recommendation) to be competitive when applying to these graduate programs.
- A lucky number of undergraduates may have been able to work in a research lab that matched with their interests while still a student. But this is often not the case for most.
- Therefore, obtaining a post-bacc research position after graduation is normal for a lot of psychology graduates and not viewed as “time off” but a logical next step towards a graduate degree.

IRTA positions at the NIH vary greatly. There are 27 NIH institutes focused on cancer, heart/lung/blood, mental health, eyes and everything in between. For psychology majors, the NIMH (National Institute of Mental Health) usually houses more psychology-based research topics. Any students looking for post-bacc positions who are working towards medical school may find that other institutes are better suited to their interests. All labs at the NIH understand the non-permanent nature of the IRTA program and are not looking to hire a research assistant for 3+ years. This is a temporary position 1-2 years, with two years being preferred.

Locating Openings for IRTA
Explore research topics/groups:
Conduct an internet search for your area of interest and "NIH". Identify researchers in that area, read any research articles that come up on the topic and look into the authors on the paper to see where they conduct their research.

- Principal Investigators sorts by scientific focus area.
- Explore research groups by institute. For example, look here for NIMH.
- Search the NIH Intramural Annual Reports for current funded projects.

Reach out:
If you know anyone who is currently an IRTA, ask them if they know anyone who studies what you are interested in.

Ask advisors and mentors about any contacts they may have at the NIH.
Experience with IRTA

Mary Tipton ‘18
B.A. Psychology
Postbac IRTA
Office of the Clinical Director
National Institute of Mental Health, NIH

My experience with the NIMH has been an overall positive one. As a student interested in suicide research, I was unable to find a research lab at UMD that aligned with my interests. I knew that if I were to apply to a clinical psychology PhD program that focused on suicide research, I would need to get my feet wet first to know exactly what I was getting into. That is where I started my search at the NIMH, looking for researchers who study suicide.

I contacted with the then-IRTA for Dr. Lisa Horowitz, the PI (principal investigator) for the lab, who conducts research on validating and implementing suicide risk screening tools for medical settings. I have been fortunate to gain a lot of mentorship from my her and the rest of our research team.

A few unknown perks of working at the NIH/NIMH
(I can only speak for the opportunities available at the Bethesda campus).

- **Graduate school courses:** The NIH offers graduate courses to IRTAs that they can pay to take, or their PI can sponsor. These courses can be opportunities to learn more about statistics, research methodology, biology, chemistry, etc. It is possible to transfer the credit to graduate school but be cautious as graduate programs may not take the credit. In this case, you could think of them more as extra opportunities to get a leg up on graduate school course content, rather than the course credit.

- **Presentations:** Many notable medical professionals and researchers come to the NIH to speak about their findings related to rare diseases in medicine and psychiatry. Attending these talks is a way to keep up on the latest science and learn what researchers and clinicians in the field are discovering.

- **Learning environment:** The NIH’s multidisciplinary approach to science/clinical work means that fellows will interact with many people outside of their domain. As someone interested in clinical psychology, I have worked with family physicians, bioethicists, psychiatrists, statisticians, social workers, neurodevelopmental psychologists and many others.

Dominique Phillips ‘17
B.S. Psychology
Postbac IRTA
Section on Development and Affective Neuroscience-
National Institute of Mental Health, NIH

My experience in the IRTA program has been amazing! I have had the opportunity to really delve into research and clinical work and develop and hone my skills for graduate school.

**Lab experiences**
I have learned a great deal about anxiety research with children and families. I have been able to conduct independent research projects within that domain. These experiences have added to my depth and breadth of knowledge about the research process, confirmed my interest in pursuing a career in clinical psychology research, and made me a more competitive applicant for PhD programs.

**Gained a mentor**
I have learned from an incredible mentor, Dr. Daniel Pine, and had the opportunity to manage collaborations with other research sites that have bolstered my networking opportunities.

**Access to research**
Furthermore, working at the National Institute of Mental Health has allowed me to attend talks and engage in research with some of the top worldwide names in the field of Psychology, which is truly unmatched learning experience. I have absolutely loved being a part of the IRTA program.
**Undergraduate experiences that were helpful for IRTA:**

*Dominique Phillips’ Perspective:*

Being in a clinical lab at the NIMH, it was helpful for me to have taken Psychology classes focused on research methods, psychopathology, development, social processes, and neuroscience. It was also very useful to have worked in the research lab as an undergraduate research assistant for a few years.

- Both my academic and research experiences gave me a strong foundation upon which I could enter the IRTA position with confidence that I was interested and prepared to engage in the work.
- Additionally, having a few years of part-time work and clinical volunteer experiences were very helpful in preparing me for how to conduct myself in a professional and clinically-sensitive work environment.

*Mary Tipton’s Perspective:*

Students may find that there are multiple different experiences that can be help them be successful in the IRTA program. This depends on the area of science you are interested in and what type of graduate program you would be applying to. If you are not sure what courses, research experiences or clinical experiences match-up with your interests, I recommend that you talk with a Psychology Academic Advisor.

**Classroom experiences:**

Courses like research methods (PSYC300), child psychopathology (PSYC330), adult psychopathology (PSYC353), clinical psychology (PSYC436), developmental psychology (PSYC355), and biological basis of behavior/biopsychology (PSYC301 or PSYC206) were extremely important because of my interest in psychopathology and the relationship between the brain and behavior in physical and mental illness.

**PSYC303: Professional Development for Psychology Majors.** It is a course that EVERY psychology major should take. It helps you prepare your CV, develop interview skills and learn about all of the career options that exist for psychology majors. The direct mentorship and guidance from the professor are invaluable resources and, in my opinion, this course should be mandatory for all psychology majors.

**Out of classroom experiences:**

**Psychology Department/Psi Chi Sponsored Events:** Events led by the Psychology Department and the Psi Chi Psychology Honor Society were so helpful. Everything from resume workshops to career panels to talks by recent graduates and current graduate students; the information available and connections they allow you to build are invaluable and should be attended at any possible time. Additionally, any student looking to hone their leadership skills should look to organizations like Psi Chi or the Undergraduate Psychology Office for opportunities, as there are many.

**Undergraduate Research Labs:** This is where you can get your feet wet with research and learn more about what types of research you may like or dislike. Whether you have a deep interest in the subject matter of the research or not, you will gain skills that you can apply to future research/lab experiences. Ideally, you should work in a research lab for two full semesters; for many, this is enough time to hone that research skill-set and create a meaningful relationship with your research PI. Many students who stay more than two semesters in a lab may be able to participate in research projects and take on more responsibilities or leadership roles, which can teach you so much more and provide you with more opportunities to expand your knowledge/skill-set and learn more about your research interests.

**Seek out relationships with advisors, research mentors and professors.** You will need their support to find out more about possible IRTA positions available and to write you a letter of recommendation. In a way, they are vouching for your abilities as a student/future researcher/medical student/scientist. Developing these relationships is key.
What to expect from the work:

**Dominique Phillips’ Perspective:**
The IRTA position is a lot of work and often the work is collaborative. Within my lab I work together with 7 other IRTAs and often engage with even more in our larger branch. I also work directly with multiple postdoctoral fellows on research projects within our lab’s larger clinical study, so there are significant responsibilities – administrative, research, and clinical in nature – that I have to manage each week. Most IRTAs work on research protocols and may assist with Institutional Review Board (IRB) submissions, task or study protocol development, multisite research coordination, and recruitment and data collection for their lab.

In addition, IRTAs assist with data analyses, presentations, and manuscript preparation, which can lead to participation in conferences and publications in scientific journals. The hours and responsibilities differ from lab to lab.

**Key skills used each day:**
- Being collaborative
- Ability to manage multiple tasks at once and stay on task
- High level of work ethic, organization, and flexibility with work load management

**Mary Tipton’s Perspective:**
I work one-on-one with my PI. There are not 5-6 other IRTAs working on the same projects as me, as is sometimes the case in larger labs. My PI and I spend a lot of the day together in meetings working on our multiple projects. In my position, I have many research and administrative related responsibilities as well as clinical shadowing opportunities.

- **Research Responsibilities:** I contribute to manuscripts, help write abstracts used in submissions to conferences to present our findings, prepare literature reviews, prepare PowerPoint slide decks for presentations/conferences, communicate with our collaborators at our study sites and handle IRB (Institutional Review Board) reviews and amendments to the written protocol of our studies.

- **Administrative Responsibilities:** Write emails to research collaborators, answer questions about our suicide risk screening tools from the general public, schedule meetings and phone calls, and other miscellaneous office tasks.

- **Clinical Opportunities:** Housed in the Office of the Clinical Director is the Psychiatric Consultation Liaison Service which provides psychiatric and psychological consultations for patients enrolled in clinical protocols at the NIH Clinical Center. As an IRTA in the OCD, I shadow attending psychologists and psychiatrists on the service to observe consultations called for depression, anxiety, suicidal ideation, sleep disturbances, delirium, etc.

This IRTA position is a match for what I wanted from a post-bacc position, as I wanted to focus and improve on my scientific writing, become familiar with working with IRB procedures, travel to and present research at a national conference and gain more clinical exposure by interacting with patients.

**Work schedule:** I work 8:30 a.m.-5 p.m., rarely take work home with me, and do not come in on the weekends. I do know other IRTAs who work later at night because their research studies involve interacting with adult participants who are only available after 5 p.m.

I also met an IRTA working in a primate lab and her schedule revolves entirely around the primates’ schedule, so she must be available to come in to the lab earlier, later and even on weekends. Again, each lab is different. But I would say most IRTAs work the standard 9 a.m.-5 p.m. with late nights every so often to rarely, not normally.
Application Tips
Submit your application as early as you can! Aim for November or December of the year before you graduate to make sure you don’t miss out on any labs that have an earlier recruitment cycle.

- Craft a good curriculum vitae (CV) and cover letter.
- Working with advisors and research mentors on this can be very helpful and can help you with the framing of your prior experiences.
- Make sure to read through your application and make sure there aren’t any typos or mistakes.

Once you have submitted your application, reach out to principal investigators (PIs) via email to let them know you are interested in working in their lab and see if they are bringing in new IRTAs for the upcoming year. Make sure the email is concise and professional, and attach your CV. Let them know that you’ve already applied so they can pull your application if they think your interests match their lab.

What is the application like?
There are sections to...

- fill in your basic education information;
- list every class you have taken plus your grade in the course (no place to upload your transcript);
- include keywords about your interests;
- add a cover letter;
- paste/type in your CV (cannot be uploaded as an attachment, you will have to type it out or copy/paste but beware formatting that may not carry over); and
- add three reference names and emails for letters of recommendation.

What if I am interested in several different labs?
This is very common at the NIH. However, I caution gearing your cover letter towards one PI or lab. For example, do not state “I want to work with Dr. Smith”. Many PIs look through the IRTA applicant online pool (my lab included) and search for keywords they think are relevant to their research (i.e. suicide, development, MRI, etc.). They will read through your application to get a feel for your past experiences/interests and how you may fit with their lab. If you point someone out by name, other PIs may think you don’t want to work with anyone other than that person, which may close off your options. (Mary)

Do I need a cover letter?
Your cover letter is very important. In it you should discuss...

- what your interests were in undergrad;
- how that drove you to the activities you completed/positions you had;
- what skills you gained;
- what interests drive you now; and
- how you want to bring all of that to the NIH (and the specific institution you are applying to) because you are driven to learning more about your area of interest in preparation for grad school. Be sure to explicitly state that your long-term goal is graduate school, whether it is MD or Ph.D.

Additional tips:

- Be honest. From experience interviewing potential new IRTAs, the cover letter will let the PI know what knowledge and skills you want to gain. They are trying to gauge 1) if you match with their lab in interests/skills and 2) if the skills and mentorship you are aiming for is a match for what they can provide to you.
- Do not write what you think they want to hear because if you are invited to an in-person interview and the PI realize that the fit is not right, it has wasted a lot of time. Additionally, to exaggerate on your interests and end up in a position that is not the right fit for you, may not be beneficial in the long run.
- Ask your current research mentors and advisors to read your cover letter and give you feedback. This will help the organization and tone of your cover letter and allow your mentors to learn more about your goals which could help them write their letters of recommendation for you.
Stand out in a bad way: grammar issues, typos, messy or hard to follow formatting and writing, unclear goals in your cover letter, and lack of consistency in your descriptions of activities in your cover letter/CV and your letters of recommendation. (Mary)

Stand out in a good way: clear, succinct writing in an easy to follow CV/cover letter, strong letters of recommendation, and describe the meaningfulness of your research experiences as they relate to your next steps/goals. (Mary)

Are there hiring timelines?
Recruitment cycles vary lab to lab, but some start as early as November the year before you would start. Most IRTAs are hired by March at the latest to start that upcoming summer (June/July). Apply early so you can have the best chances to interview at the most labs!

- Current IRTAs that are applying to graduate schools will be interviewing at potential schools from January-March. Some labs may look at IRTA applications as early as November-December to take advantage of any winter breaks that current undergraduates may have so that they can more easily travel to the NIH for an in-person interview (the majority of labs will not pay for your travel, it is all out of pocket).
- The rule of thumb is to apply as soon as possible; get your application into the system the earliest you can. This would be late November - early January, but no later than mid-February. I made contact in late December (the lab was already looking at potential applicants), interviewed in early February and was hired one week later. I know of some IRTAs who were hired in March and some who were hired in June. It is very lab dependent, but the aforementioned timeline is a norm that many labs follow. (Mary)

Interview:
- Mary shared that she contacted the PI (principal investigator) for a lab that conducted research on suicide risk screening. From there, she engaged in email conversations with the current IRTA and the lab PI, after which an in-person interview followed. After the in-person interview, the PI requested a writing sample to accompany her application.
- If there is no official job posting (as there rarely are) and you reach out to the PI on your own, you may know about their lab/research, but not about what an IRTA’s place is in the lab. It is important to determine what the IRTA’s required duties will be, given that your post-bacc experience should enhance your existing skill-set and you want to know what skills you will be strengthening in their lab. The take home message is to do your research on the positions you are applying to as much as possible and ask questions during the interview.

Additional Resources

- Intramural Research Training Award (IRTA) Hiring Mechanism for Postdoctoral, Pre-Doctoral, Post-Baccalaureate, Technical, and Student IPDs
- Facts about the program
- Applying to the NIH Postbac Program (video)

Article: Why you should do a NIH POSTBAC IRTA before applying to Medical School