## Episode 30 – Undergraduate Research Round 2 – REUs

Welcome to Grad-post! I'm your host, Brian S. Mitchell and we're here to talk about life before, during, and after graduate school, and whether an advanced degree is right for you. I'll draw upon my experiences as a graduate dean and research mentor, as well as my network of students, colleagues, and experts to bring you the most complete information on graduate education that I can.

In Episode 16 I introduced you to your grad school application superpower: undergraduate research. I hope some of you took my advice and are working on an undergraduate research project this year, or are thinking about it for next year. Even if you are not currently involved in undergraduate research, there are some opportunities coming along this summer that you should think about. They go by various names, but they are generally referred to as research experiences for undergraduates or REUs. At least that's the terminology used in STEM fields, but I am by no means limiting this discussion to STEM. The National Institutes of Health has what they call Summer Internship Programs available at training.nih.gov for students from high school through medical school. But "internship" connotes a little different meaning than what these experiences can be. That's why I like using REU, because it's a little more descriptive of the types of experiences I'm talking about here – those for undergraduate students.

If you are in the arts and humanities, you should check with your university for summer opportunities because unlike the health sciences and STEM disciplines, many of these programs are funded through local, state, or regional initiatives. Some are even funded solely by the institution. For example, <a href="Pacific University">Pacific University</a> has a web page devoted solely to listing summer research opportunities in the arts and humanities, and web sites from the <a href="University of Texas at Austin">University</a> have fairly comprehensive lists that include non-STEM opportunities.

In the STEM disciplines, the National Science Foundation has a searchable database for REUs they fund. You can filter opportunities by state or research topic, among other criteria. There are also international research opportunities for STEM students through the International Research Experiences for Students (IRES) program. The IRES program website has a way to search for these opportunities by state, but finding these programs can be a little tricky outside the campus that sponsors them. There are other NSF-funded internship and undergraduate research opportunities through multi-institution research centers that you can look for on your campus. There are also other STEM-related summer research opportunities though many federal agencies, including NASA, Department of Energy, and the Department of State. The latter has many non-STEM internships, as well. Keep in mind that many of these federally-funded summer research and internship programs have U.S. citizenship and even security clearance requirements, so consider these opportunities carefully. It is an unfortunate fact that there are simply fewer summer research opportunities in the United States for international students than for domestic students, but don't let that discourage you! Check in your home country as well and include international organizations in your search.

Summer can also be a great opportunity to get that international experience without taking an entire semester away for study abroad. And it can be much less expensive! You may want to check with your study abroad office for these opportunities. For example, the German Academic Exchange Service - or DAAD as it's known for its German-language acronym – has great summer research opportunities in Germany for undergraduate students from a variety of countries, including the United States. The RISE Germany program offers generous stipends for summer research internships at top German universities and research institutions. The unique aspects of the German research infrastructure means that even as a non-citizen you have research opportunities not just at their colleges and universities, but at some of their top research centers like Max Planck and Frauenhoffer institutes. And because of the strong international

collaborative component of these institutes, you don't even need to know German to participate. It always helps, of course, and I always encourage students going abroad to take advantage of the language and cultural opportunities these experiences provide. There are also summer programs for undergraduate students in Japan, France, and many other countries around the world. Don't let a language barrier stop you from enjoying a summer international research experience.

Don't let money stop you, either. In most cases, these opportunities offer stipends, housing, insurance, and even cover travel costs. You'll find programs that you can pay to participate in for the summer - much like a summer course - but why pay for these opportunities when you can get paid to do them? As I mentioned before, paid summer internships are harder to find outside the health sciences and STEM disciplines and for international students, but the industrious student will find a way to get some meaningful research, scholarly, or industrial experience while getting paid to do it. Start your search now!

The deadline for these opportunities are fast approaching and in some cases already past, so if your plan is to go on a research experience this summer, you will want to move quickly. But if not for this summer, keep them in mind for the remaining summers of your undergraduate experience, including after you graduate. It may not help you with your grad school application as a senior, but if you decide to take a gap year it can still look great on your resume. It will also help you decide if grad school is right for you. Plus, these are just fun and rewarding experiences to have regardless of your career goals!

Thank you for joining me today. All the links provided in my podcast are available on grad-post.com. There you'll find additional resources and information to help you plan your adventure for an advanced degree.

Make every summer and every degree count!

## Links

https://spotifycreators-web.app.link/e/xe1KglwLXPb

https://www.training.nih.gov/research-training/pb/sip/

https://new.nsf.gov/funding/initiatives/reu/search

https://www.nasa.gov/learning-resources/internship-programs/

https://www.energy.gov/careers/student-experience-program

https://careers.state.gov/interns-fellows/us-foreign-service-internship-program/

https://www.pacificu.edu/academics/research/undergraduate-research/get-involved-students/campus-summer-research-experiences/arts-humanities

https://undergradcollege.utexas.edu/academics/undergraduate-research/conducting-research/summer-research-opportunities

https://envsci.northwestern.edu/off-campus/nsf-reu/

 $https://www.nsf.gov/awards/award\_visualization.jsp?org=NSF\&pims\_id=505656\&ProgEleCode=7727\%2C080Y\%2C079Y\%2C288Y\&from=fund$ 

https://www.daad.de/rise/en/rise-germany/