

Answers to open-ended survey

Q1

We are currently applying for a renewal of the Multidisciplinary Training Grant and would greatly appreciate your feedback about your experiences. We have just a few questions (this screen only).

First of all, what was most useful to you about being supported by the training grant?

Being able to afford housing.

Having funding through the training grant allowed me to focus on my research instead of having to teach. But more than that it was my introduction to federal funding which has been very important as an independent investigator to show that history.

The most useful thing was getting exposure to multidisciplinary research in aging. While on the training grant, I was able to interact and even collaborate with researchers across multiple distinct disciplines. Because of this training, I am now able to bridge a variety of disciplines in my current research, which has really improved the quality and scope of my work.

Flexibility to work with multiple faculty members and take advantage of many multidisciplinary learning opportunities rather than being tied to a single funded project.

Being supported by the training grant offered increased academic and professional freedom. Allowing pursuit of objectives beyond the primary focus of the lab, and enabling multidisciplinary pursuits.

I was able to pursue research with a mentor who shared my interest and work closely with that mentor, without having to take on a separate job.

Learning more about all the different science going on at USC and getting to know other students in the training program and the faculty was invaluable.

The interdisciplinary focus exposed me to diverse research perspectives and methodologies that shaped my own research (and continues to influence my research). The seminar exposed me to exciting new research, and the courses enhanced my knowledge of the study of gerontology. In addition, being on the training grant meant having funding without having to be a TA or RA, which ultimately allowed me to spend more time on my own research.

The financial support and release from TA requirements

By far, the most useful support I received by the training grant was the mentorship I received by Margaret Gatz and Eileen Crimmins. When I started on the training grant, I had very little research experience in gerontology and grant writing. During the 2 years I was on the grant, I got crucial feedback from Drs. Gatz and Crimmins on conducting epidemiological research on Alzheimer's disease, writing grant applications with them (successfully securing one from the Alzheimer's Association), and building collaborations with USC faculty, like Christian Pike and David Conti, and post-doctoral scholars like Joseph Saenz and Jennifer Robinette.

I thought the regular meetings with other fellows were useful and the talks that we were invited to attend.

Additional training and mentoring opportunities through the seminar class (eg: focus on professional development topics including grant prep and job applications)

Getting to know students in other areas of gerontology expanded my academic network and knowledge base

Relief from TA responsibilities allowing for greater focus on research

Mentorship from successfully funded research scholars, exposure to high quality scientific research in action.

The fact that I didn't have to TA was a big help. The freedom to work on research around the clock was the most useful aspect of the support.

I learned a lot by interacting with senior researchers (e.g., post docs, Eileen, other professors and guest speakers). They shared their experience with us, which was extremely helpful.

In my doctoral program, I did not receive any training in issues related to aging. This postdoctoral program was a unique experience that supplemented my prior education.

Because my salary was not tied to my preceptor's grant, it also allowed me greater freedom to pursue my own research questions.

In thinking back, what I found most useful--and interesting--was the program's interdisciplinary focus, not only as reflected in my fellow post-docs' research interests but also in the faculty's research pursuits. In my view, we researchers tend to take comfort in our silos, but innovation often takes place between silos. The USC program promoted that cross-fertilization.

The ability to primarily focus my own dissertation work (and related projects) without other potentially competing interests.

Q2

What opportunities did it offer you?

A roof over my head and meals in my belly while conducting research.

Being on the multidisciplinary training grant allowed me to gain a broader perspective of all the research occurring across campus with regards to gerontology / the biology of aging. I was able to collaborate and network within a wider scope than I would have had I not been on that training grant.

It facilitated collaborations with researchers outside of my immediate field. It also provided great career development training, from grant writing to oral presentations. It also afforded me funds for traveling and presenting at scientific conferences--increasing my visibility in the scientific community.

Opportunity to pursue multiple multidisciplinary opportunities - I worked not only with my primary advisor, but with multiple other faculty members and was able to publish a lot as a grad student. The network created by offer members of the training grant, combined with outside funding offering increased freedom, allowed and enabled interdisciplinary collaborations which otherwise would not have been possible.

The main opportunity was to work in a multidisciplinary environment and learn to understand and appreciate research in other disciplines on aging and value each discipline contribution to the work and the power of working together.

In future grant submissions, it has helped me score a 1/9 as a candidate, which offered other funding opportunities post-grad school.

It offered the opportunities to meet with researchers outside of my discipline (psychology), to learn from diverse researchers and academics, and (as noted above) to have more time protected for research.

More time to focus on research

The training grant afforded me the opportunity to attend the gerontological society of america meetings, the annual behavior genetics association meetings, and attend 2 (!) genomics workshops (one at the University of Colorado, Boulder and another NIA-sponsored workshop at the University of Michigan). As a result of these conferences and workshops, I have new collaborations in place and am currently writing a manuscript with two colleagues I met (one from each workshop).

The training grant afforded me the opportunity to take Liz Zelinski's grant writing course, which I am all but certain is why I succeeded in receiving an Alzheimer's Association Research Fellowship.

One new opportunity the training grant afforded me is the chance to learn about biomarkers. As a result, Morgan Levine (another trainee) and I are working together with a group of behavior genetic researchers to integrate biomarker data collection into a longitudinal twin study of midlife cognitive ability. We will submit a R01 to NIA in October 2018.

I was able to hear talks by other scientists that I might not have otherwise known about.

See previous answers

Access to mentors, data, training, resources, and a community of high level scholars.

To meet others. Gerontology is highly multidisciplinary, and it takes a lot of effort to stay updated on the research of others in the department.

It gave me the opportunity to learn about other fields in Gerontology other than my own and to develop the ability to explain my research to people who are not in my field.

Eileen's candid feedback to my research and to others was very helpful in improving my presentation skills. It also helped me look at the big picture.

Observing postdocs giving a job talk was helpful in preparing for my future talks.

I was given many opportunities to learn about aging from a multidisciplinary perspective. In addition to the multidisciplinary seminar (which was required of trainees), I also elected to attend department colloquiums and audited several of the graduate classes in gerontology.

I was also able to broaden my research program to include questions related to age-related changes. All of my prior studies had focused only on younger adults.

I developed a working relationship with one of my preceptors that eventually led to my current position.

I readily had access to fellow trainees and preceptors who provided critical feedback on my research and professional development.

Q3

Do you think it influenced your career? If yes, how?

It did not.

Yes! It was my introduction to NIH funding. After being on the training grant I was able to get a pre-doctoral fellowship. Each of these grants played an important part of my doctoral experience and prepared me for my postdoc and beyond. I believe that they were the stepping blocks to bring me to where I am now.

I think being a trainee had a tremendous impact on my career. I am well regarded as a very interdisciplinary researcher, and I owe that to the training I received at USC. I was also well prepared for each of the sequential steps I took in my career (e.g. applying for academic positions, submitting grants, etc.).

I left the doctoral program with about 6 peer-reviewed publications in press with multiple faculty members, which gave me a huge leg up for both post-docs and subsequent faculty opportunities.

Yes, definitely. The training grant is directly responsible for my multidisciplinary growth and development. The focus of the gerontology department, it was facilitated by support from the training grant.

I am positive that it did as I am skilled at working in a multidisciplinary environment.

Yes, it greatly helped in securing post-doctoral funding.

Yes. I remained focused on gerontology, including completing a postdoctoral fellowship at a Memory and Aging Center focused on neurodegenerative diseases associated with aging. I also continued interdisciplinary research, including working with neurologists, neuroradiologists, oncologists, nurses, and have recently discussed the possibility of writing a grant with an anthropologist. Probably because of the Training Grant, I have rarely done research that is NOT interdisciplinary.

Yes, it allowed me time to publish which gave me a leg up in the postdoc job market.

Yes, the training grant had a strong influence on my career. As a result of the mentorship received by Drs. Gatz, Crimmins, and Zelinski, I secured a tenure-track assistant professorship in clinical geropsychology. Not sure what else to add here. This is about as influential as I think the training grant could be on me.

Yes, of course. Being exposed to ideas was influential.

Yes. While I'm now in a Psychology Department, I have a very broad base of knowledge relative to many of my Psych colleagues. This is evident in my research topics, teaching/mentoring abilities, and list of current/former collaborators. Interdisciplinary research and applied work are also increasingly valued by funding agencies, so I have more opportunities in the grant domain.

Absolutely. I had better training than I would have had without the grant as well as the recognition of others in the field that I had come from an excellent, well-funded program. The exposure I got to grant writing and research are skills I use everyday and pass on to my own students.

It definitely helped me obtain my postdoctoral position due to my increased productivity during the latter stage of my graduate education.

Yes it influenced my career. It gave me a realistic view of getting a job in academia (positives and negatives).

Yes!! It changed my research trajectory. I now primarily study issues related to aging. It also allowed me to obtain a tenure-track position. I was trained as a cognitive psychologist. However, the tenure-track positions that I have been offered have all been in developmental psychology. I would not have been considered for these positions if not for the training grant.

A mentor's work inspired me enough to shift my research focus from nursing home residents to palliative care patients.

Yes, undoubtedly it helped me understand how a career in academic research looked, and it cemented my desire to pursue a career in academia.

Q4

What could we do to improve the training experience for future trainees?

Increased concurrent career guidance beyond direct support from the trainees advisor would be helpful.

It has been several years since I was at USC. I felt that everything was positive from the multidisciplinary lecture series to the support from the other trainees and the mentors.

It is not needed, but it may be helpful to have a stats workshop/discussion group where trainees could bring their statistics problems and discuss as a group how to tackle them.

N/A

No suggestions, could not be happier with how it was run.

Provide opportunities for curriculum vitae writing and job search skills.

Provide workshops for grant writing

Alternative career workshops could really help introduce trainees to professionals in the area with non-academic careers.

I can't think of any improvements.

More 1-on-1 mentoring with faculty or postdocs to review degree progress and career goals

No comment.

additional career development, additional mentorship, additional resources on grantwriting
Increase opportunities for inter-lab collaboration (trainees co-authoring with other PIs, or formal co-mentoring). This really helps with developing more research tools/approaches and getting strong letters of rec from different faculty who have supervised your research.

USC's program already does an excellent job of interdisciplinary exposure and excellent mentorship. I would continue to offer that and add training in new cutting edge methodologies and continued experience with grant writing.

Provide technical workshops related to statistical programming and other related technical skills.

I think it would be helpful to give a little more specific expectations for future trainees in an encouraging manner.

No suggestions.

Seriously: Nothing that they are not already doing comes to mind.

Learn more about grant writing and obtain critical feedback on a grant proposal. This could be in the form of: 1) preparing Specific Aims and having fellow trainees and preceptors critique them, or 2) a mock NIH study section where trainees review a grant and act as pseudo NIH study section reviewers. I have received this training outside of the Multidisciplinary Training Grant and found it to be incredibly helpful.

Q5

Are there any specific suggestions you have for improving training in developing oral and written presentations?

no.

Christian Pike was my mentor for my PhD and his mentorship and guidance on giving presentation and writing grants was invaluable! I received excellent training in those areas through hands on experience working with Christian.

No, the program already has great opportunities for training in oral and written presentation.

No. I found the training very effective.

Having trainees present their research to each other, maybe in a weekly fashion, would greatly improve the practice they get to present in a comfortable setting.

Workshop for grant writing would be important. I would even say that there should be a class with a requirement to write a full NIA or equivalent grant to submit at the end of the course with intense faculty support.

Holding an annual symposium for the trainees with poster presentations and/or oral talks would help facilitate these skills.

Not that I can think of.

No, just more opportunities to practice presentation skills.

No comment.

hold a workshop in both - "best practices" or "tips" type of topics

No.

I had excellent opportunities on a regular basis (at least twice per year) to present my work and get feedback from multiple sources. It was excellent.

Mandatory workshops related to presenting and writing, and mandatory presentations with other trainees.

Receiving feedback from Eileen and other professors was helpful. More of those would be helpful.

No.

I recognize that TED-talk type presentations would be inappropriate for most academic conference presentations, but we researchers nevertheless could learn presentation lessons of value from these talks, and these lessons are readily available online in the form of articles and websites.

Provide additional opportunities for presenting our work. This could be in the form of 10-15 minute presentations of research-in-progress in order to provide enough time to enable 3-4 trainees to present/meeting session.

Encourage or facilitate writing groups. While I was there, a few trainees organized an unofficial writing group to encourage writing and keep each other on task. It was a nice way to be productive and continue to build more connections among fellow trainees.

Q6

Are there any specific suggestions you have for improving training in skills needed to apply for fellowship and grant support?

no.

see above

Provide lists of types of grants that may be relevant (e.g. F32, F31, K99, AFAR, etc.), and share successful applications.

I spent a summer at NIA Extramural as an intern, which was extraordinarily valuable, and I would encourage others to do the same.

No suggestions

Part of the training program could require applying for external funding--including a grant writing class that helps you create each of the necessary documents in a non-rushed manner throughout the semester with guidance from peer review and professors' input as well.

Perhaps having a grant-writing group that provides instruction and instrumental support throughout the grant-writing process (and deadlines!) would help.

Weekly grant writing workshop with peer-review and mentoring; weekly "writing retreats" (students and faculty participate together!) to create a culture of productivity and get work done where it matters...publications!

Liz Zelinski's grant writing course should be mandatory. It was very helpful.

Yes, the more help you can provide with supporting students with grant writing, learning about opportunities appropriate for us, etc. the better

Make submitting an application for external funding mandatory! And go through the process with internal "review" to improve the chances of funding and the quality of the training experience.

More practice with writing independent applications (for example pre-doc IRTAs, NSF awards for students, etc.)

No.

I think more hands-on guidance in planning and writing a grant would be helpful.

Relevant comment: Liz came as a guest speaker and gave us tips on grant writing, which was great.

I found Liz Zelinsky's talk on the F31/F32 funding mechanisms very helpful. Liz also was very generous in providing feedback on my proposals even though she was not my mentor. Perhaps there could be a more formalized way for students to receive additional feedback?

In my graduate program, we also kept hard copies of all funded proposals. Students could read them for examples of successful applications. I found this very helpful.

None come to mind.

As stated in an earlier response, having sessions dedicated to successful grant writing would be invaluable. This was a skill I wish I had more exposure to during graduate school. It is a skill that takes several years to develop well, and it would be very helpful to 'get a head start' on laying the foundation on persuasive grant writing.

Q7

Is there anything we could do to improve trainees' competitiveness on the job market?

helping to achieve publications and individual grants is very important!

No, I felt very prepared for and competitive on the job market.

Non-academic careers are not promoted or explored at all. Academic career competitiveness is very well addressed.

See above-

Workshops on curriculum vitae writing and job search skills

Work on grant writing - see above

Helping trainees understand how to write CVs and resumes for academic and non-academic jobs.

I'm primed to be thinking of it, but probably more focus on grant-writing would increase competitiveness.

More engagement in the training program from students' primary mentors; also help trainees identify second and third mentors to work on research together--these faculty members should be second and third letter writers for when the student is on the market

No comment.

help with structuring academic resumes, help with putting together job talks, help with networking

More grant-writing training and multi-faculty mentoring will help.

Perhaps a specific workshop on applying, interviewing, and negotiating for jobs.

Provide technical workshops related to statistical programming and other related technical skills.

In my last year at USC, I was able to teach an undergraduate course on the Psychology of Aging. This was definitely helpful for me on the job market. It showed teaching experience, particularly within the field of aging. It could be helpful to have this as an option for other trainees.

I do not feel qualified to offer recommendations, for my career track by choice has always been somewhat different from those pursued by my colleagues.

Have trainees utilize the Multidisciplinary Trainee website more. I have seen other graduate schools 'highlight' students who are going on the market and found this to be a nice way of 'getting to know' a potential candidate. On their website, each student has his/her own profile link where they post their CVs and have a blurb about themselves. I believe the Gerontology department has this for PhD students, but it could extend this to the Multidisciplinary Trainees as well.

Q8

Is there anything we could do to improve trainees' preparation for independently conducting research and directing research teams?

So much of this comes from the individual mentor but maybe a lecture series specific on these topics: conducting research, managing a research team, writing grants, managing grant budgets...etc.

I had opportunities to collaborate with other trainees, but maybe facilitating more of this.

I feel that this is already well addressed by the training program.

Helping facilitate undergraduate research mentorship or high school summer mentorship in the laboratories--unless your advisor has a steady flow of undergraduate research applicants, some people may not have the opportunity to help teach and lead younger student's research.

Not that I can think of.

Allow grad students to train undergraduate RAs and oversee their work

I can better answer this question in a year, as I'm currently in the process of figuring what works and doesn't work with respect to forming a lab and directing students.

exposure to folks who can explain what it takes to do this work

Professional development seminars on mentoring logistics from different faculty.
Each lab was quite different, so some may have had more or less exposure to managing others. I personally, was able to lead small teams and work in peer groups and I got good experience from that.

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Focus on dealing with overly high expectations that new researchers often have.

A few lectures on independently conducting research and directing research teams would be very helpful. I don't remember discussing this topic.

I have no suggestions.

Explicit instruction in team management would be helpful, even if it was nothing more than an introduction to the best literature on this topic. Speaking for myself, I am not a natural manager of others, but I do believe management skills can be learned and are worth learning if one intends to conduct large research projects.

Perhaps including more leadership based workshops could be helpful. This could include how to be a successful PI, organize and direct a research team, prepare a grant budget, etc. I acknowledge there are many skills that need to be learned and this may be adding too much, but they could be seen as brief introductory sessions.

Q9

If you have any other comments/suggestions, please fill them in here. Many thanks for your help with this!

I am very thankful for my time on the training grant. I do feel like being a part of that grant in combination with the collaborators and mentorship with Dr. Pike set me up to be successful in my career.

I think the Multidisciplinary Research Training in Gerontology is wonderful program that I am very grateful to have been a part of.

None! I feel honored to have been a part of the training grant and feel that it will continue to guide my career development.

Overall, being a trainee on this grant was such a wonderful opportunity. This training program was extremely important in my career development.

The Training Grant was a wonderful experience for me. I don't know if I'd be in an academic position today had I not had been a part of it.

Thank you! My time on the training grant was invaluable.

Good luck!

No.

Thank you for having me as a trainee. I learned a lot and will do my best to apply the knowledge gained through this grant.

Thank you again for the opportunity to be part of the training grant! It was career-changing for me!