

**Don Pedersen
Research Grant
Return on Investment
Report**

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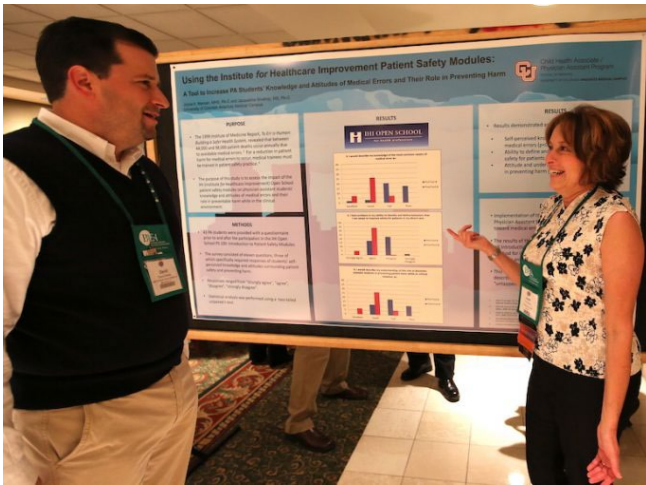




Background

In 1997, Don Pedersen, PhD, PA-C and Kathy Pedersen, MPAS, PA-C made a donation to PAEA to fund the APAP Research Institute Small Grants program, which is now known as the Don Pedersen Research Grants Program in honor of Dr. Pedersen's generous support and contributions to PA education. The current endowment, with donations and subsequent board contributions, was created in 2013 to fully fund the program.

The Don Pedersen Research Grants Program is intended to foster PA faculty development in research. The program encourages research about both PA education and workforce issues.



Sara Lolar M.S., PA-C, 2019-2020 Don Pedersen Research Grant Grantee

Grant Objectives

The grant seeks to fund proposals investigating all aspects of PA education and workforce issues, **preference will favor:**

1. PA faculty who are early-career or new to research who have not been previously funded by another PAEA research grant program
2. PA faculty and full-time PA program staff who are early-career or new to research who partner with senior researcher co-investigators
3. Proposals that address PAEA's priority areas:
 - a. Increasing capacity in clinical education
 - b. Attracting and retaining students and faculty from diverse backgrounds.

Grant Achievements

1. Between 2001-2021, **241** PA faculty members have applied for the grant.
2. Between 2001-2020, PAEA has awarded **68** grants for a total of **\$358,370.64**.
3. Since 2011, **14** manuscripts published and/ or under review in academic journals directly related to grantees' projects
4. Since 2011, **13** presentations submitted and/or given at academic or professional conferences.
5. Since 2011, **17** poster presentations submitted and/or given at academic or professional conferences.
6. Since 2011, **10 of 19** of the researchers who applied to present at a conference, submitted a manuscript for publication, which is a 52.6% conversation rate. This is comparable to the 47% overall conversation rate from presentation to publication that [Mitchell Peake et al](#) found in five-year review of abstracts from the American Association for Hand Surgery Annual Meeting. **Because PAEA requires grantees to apply to present or publish their work, we only measure whether they submit their abstract and manuscript for presentation and publication.**

Don Pedersen Research Grant

We are proposing to reduce the number of grants from three to two grants and increase the funding from \$7,000.00/grant to \$10,500.00/grant, which will provide more funding while maintaining multiple grants. The 2021-2022 cycle has allowed us to pilot this proposition. Because there is only one Don Pedersen Research Grant awarded for the 2021-2022 grant cycle, PAEA increased the funding for Professor Samuel Paik's grant to \$10,500.00. Competitive applications include a thoughtful dissemination timeline and budget and are likely to yield high-quality, peer-reviewed scholarly work.

The grant supports:

- Equipment
- Supplies/materials
- Operations
- Labor, personnel, or consulting costs
- Travel or other expenses related to the preparation of posters or presentation of findings
- Applying for matching institutional support is encouraged, but not required.

The grant does not support:

- Indirect or administrative costs
- Capital improvements, construction, or purchasing costs
- General operating expenses
- Fundraising campaigns
- Personal expenses for educational advancement

Funding for the grant has fluctuated over the years, which has led to the number of proposals and funded projects varying each year between 2001-2021. In addition, reviewers consider the likelihood of the project being published in a peer-reviewed publication or presented at an academic or professional conference. For example, in 2020, only two projects were funded because they are the most likely to be published.

Note, in the records, there weren't any proposals listed in 2002.

Don Pedersen Research Grant				
Year	Proposals	Amount Requested	Funded Projects	Funding
2001	18	\$208,059.72	2	\$14,730.00
2002	N/A	N/A	N/A	N/A
2003	20	\$77,792.71	6	\$20,000.00
2004	20	\$24,897.61	6	\$19,975.61
2005	10	\$21,410.90	4	\$12,324.80
2006	15	\$64,558.37	6	\$24,245.72
2007	11	\$51,792.67	4	\$16,554.67
2008	7	\$34,107.00	3	\$14,064.00
2009	13	\$78,700.21	4	\$27,924.00
2010	9	\$54,077.50	4	\$19,999.00
2011	7	\$47,217.00	3	\$17,734.00
2012	6	\$37,173.32	3	\$20,000.00
2013	10	\$66,008.00	3	\$20,464.00
2014	18	\$109,932.00	3	\$19,171.00
2015	13	\$87,626.70	4	\$24,590.00
2016	16	\$105,425.00	3	\$19,287.00
2017	7	\$52,080.00	1	\$7,000.00
2018	5	\$52,080.00	3	\$20,997.00
2019	8	\$20,997.00	3	\$20,795.84
2020	6	\$41,500.00	2	\$11,514.00
2021	8	\$54,982.05	1	\$7,000.00
Total	219	\$1,235,435.71	68	\$358,370.64

Demographics

Between 2001-2020, the demographic data was not collected regularly and as a result, are relatively sparse. Since 2018, PAEA Research has made a concerted effort to collect demographic data in grant applications through our OpenWater (OW) system. Note that the demographic questions in the application are not required and applicants can choose not to answer them.

Race/Ethnicity (Primary Investigator)										
Year	Am. Indian/ AK Native	Asian	Black	Native Hawaiian/PI	White	Prefer not to answer-Race	Other	Hispanic	Non-Hispanic	Prefer not to answer – Ethnicity
2018	0	2	0	0	4	0	0	0	5	0
2019	1	0	1	0	5	0	0	0	7	1
2020	1	0	1	0	3	1	0	0	6	0
2021	0	1	1	0	5	1	0	0	7	1
Total	2	3	3	0	17	2	0	0	25	2

Gender (Primary Investigator)				
Year	Male	Female	Non-Binary	Prefer not to answer/ No answer
2018	1	4	0	0
2019	1	7	0	0
2020	3	3	0	0
2021	1	6	0	1
Total	6	20	0	1

- The demographics of the primary investigators from 2018-2020 are 62.96% white, 92.6% non-Hispanic, Latino, or Spanish in origin, and 74.1% female.

Race/Ethnicity (Co-PI, Co-I, Other Collaborator)										
Year	Am. Indian/ AK Native	Asian	Black	Native Hawaiian/PI	White	Prefer not to answer - Race	Other	Hispanic	Non-Hispanic	Prefer not to Answer-Ethnicity
2018	0	0	0	0	8	5	0	0	6	7
2019	0	2	1	0	13	3	0	0	16	4
2020	0	0	2	0	4	1	0	0	5	1
2021	1	1	1	0	12	3	0	0	15	3
Total	0	3	4	0	37	12	0	0	42	14

Gender (Co-PI, Co-I, Other Collaborator)				
Year	Male	Female	Non-Binary	Prefer not to answer/ No answer
2018	5	6	0	2
2019	5	13	0	1
2020	1	6	0	0
2021	3	12	0	2
Total	14	37	0	5

- The demographics of the Co-PIs, Co-investigators, and other collaborators are 66.1% white, 75% non-Hispanic, Latino, or Spanish in origin, 66.1% female.
- Despite the lack of diversity within the applicant pool: We would like to highlight projects that are funded for non-White faculty:
 - Darin Ryujin, MS, MPAS, PA-C, an Asian, male primary investigator received a grant in 2018 and a Dipu Patel, MPAS, PA-C, an Asian female co-investigator was a member of a team that received a grant.
 - Sara Lolar, MS, PA-C, a Native American, female received grant in 2019.
 - In previous grant cycles, Gerald Kayingo, PhD, PA-C, a Black, male primary investigator was awarded a grant in 2011 and 2012. In addition, a team of Black,

female PA faculty researchers led by Sheena D. Brown, PhD, MSCR was awarded a grant in 2016.

- o In 2021, Samuel Paik, PA-C, an Asian American male and Lucy Kibe, PhD, PA-C, of Charles Drew University, an African American female, are the first investigators from a minority serving institution (MSI) to earn a grant.
- Overall, increasing the diversity of applicants and grantees remains a priority for PAEA Research. PAEA has improved its outreach to members, especially members from diverse backgrounds. Our collaboration with our marketing consultant, Jennings as well as our work with Black PA program directors and faculty through the HBCU Consortium and PAEA-IAMSE Scholars Program have yielded better results as we continue to build a more inclusive research community.

Training Early-Career PA Faculty Researchers



Left to Right: 2020-2021 Don Pedersen Grantees, Bethany Grubb, MPH, MPAS, PA-C; Mirela Bruza-Augatis, MS, PA-C

CONCLUSION

Grant Evaluation

The Don Pedersen Research Grant has grown since it started in 1997 and the PAEA Research Team is using the Kirkpatrick evaluation model to ensure that its outcomes align with its objectives. The grant is an opportunity that focuses on the development of PA faculty research.

Ultimately, the goal is to help early-career researchers build their skills and confidence to become the next generation of contributors to the growing body of PA literature, elevate the PA profession, and become PA research leaders. As a result, the objectives seek to change the grantees' behavior in respect to research by providing them resources to conduct research and partnering them with experienced PA researchers.

Throughout their projects, the grantees submit progress reports that inform PAEA about their achievements or challenges with their milestones, analysis, manuscript production, or delays in the timeline. These updates show how the awardees are increasing their skill sets and using resources to advance their research.

Kirkpatrick Model		
Level of Assessment	Objective	Data Collected
Level 1: Reaction	The grant seeks to fund proposals investigating all aspects of PA education and workforce issues.	Between 2001-2021, 241 PA faculty members have applied for the grant and PAEA has awarded 68 grants for a total of \$358,370.64 .
Level 2: Learning	Preference will favor PA faculty who are early-career or new to research who have not been previously funded by another PAEA research grant program	Gerald Kayingo asserts that the grant allowed him and his team to broaden their research skills, increase their scholarly productivity and expand their research network. It has been crucial for their subsequent promotions and increasing their recognition as leaders in the field.
Level 3: Behavior	Preference will favor PA faculty who are early-career or new to research who partner with senior researcher co-investigators	Mirela Bruza-Augatis, MS, PA-C found that "If you are new to research, it is important to network and collaborate with other researchers who are interested in a similar topic. This was the most crucial step for me." Her co-investigator Bettie Coplan, PhD, MPAS, PA-C, has been an invaluable contributor and mentor in her project, Investigating Potential PA Program Application Barriers for Underrepresented Minorities .
Level 4: Results	Preference will favor proposals that address PAEA's priority areas: <ol style="list-style-type: none"> Increasing capacity in clinical education Attracting and retaining students and faculty from diverse backgrounds. 	Kayingo and his team published their findings of their study on the <i>Impact of Patient-Centered Medical Homes on Primary Care Clerkship Experiences</i> in three peer-reviewed journals and several poster and national presentations. One of their manuscripts was published in <i>Family Medicine</i> , which increased PA exposure to other health professions.

Grant Outcomes

In the last two decades, Don Pedersen Research Grantees have used their research findings to enhance the PA literature and propelled them to pursue more substantial grants and projects. Between 2001-2020, PAEA has awarded **68** grants for a total of **\$358,370.64**. Because our grant tracking was inconsistent before 2011, our knowledge of grant outcomes is incomplete. Since 2011, 28 researchers received funding. Overall, 19 of 28 grantees have submitted and/or given at academic or professional conferences or have a manuscript published and/ or under review in academic journals directly related to grantees' projects which has produced 14 manuscripts published and/or under review, 13 presentations, and 17 poster presentations. In addition, 10 of 19 of the researchers who applied to present at a conference, submitted a manuscript for publication, which is a 52.6% conversation rate. This is comparable to the 47% overall conversation rate from presentation to publication that [Mitchell Peake et al](#) found in five-year review of abstracts from the American Association for Hand Surgery Annual Meeting. **Because PAEA requires grantees to apply to present or publish their work, we only measure whether they submit their abstract and manuscript for presentation and publication.**

Because of the intensity of the didactic and clinical phases in PA education to prepare PA students for practice, PAs are not always trained in academic research. Therefore, the Don Pedersen Research grant allows PA faculty to grow their research skills and prepare to apply for larger grants. In reflecting on her growth as a researcher, Virginia Valentin, DrPH, PA-C, a 2018-2019 Don Pedersen Research Grantee, has used PAEA research grants to develop skills that led to her successful application for a \$1.5 million HRSA training grant. She emphasized that grant writing is an important skill that helps you frame your work and provides you with due dates and an expected outcome. In the end, she said that the experience gained from these grants increases the likelihood of project completion and publication, which is especially helpful when you are applying for promotion or academic tenure. Valentin also noted that most of PAEA's funding opportunities require a mentor, which is critical to success. "My path has not been planned and has been built upon the path laid by many PA researchers before me. Due to their work and their mentorship, I have been able to build my own research path."

Next Steps

As we go forward, we are trying to attract more applicants from diverse populations. Monica Miles, PhD is currently working with the HBCU Consortium and the IAMSE-PAEA Scholars Program to develop HBCU educators and researchers. This work also highlights the importance of demographic information. Currently, grant and fellowship data are tracked in separate spreadsheets. The same person can apply to different grants and provide different answers to demographic questions, and it is difficult to reconcile the conflicting information, we are using the last submitted responses. Therefore, we are collaborating with Amanda Gunter, MS, Chief Digital Officer and her team to add grant applicant demographics and outcome metrics into Salesforce. Having a greater understanding of our member demographics will support of research goal of recruiting and retaining faculty and students from diverse backgrounds.

Broadly, PAEA Research recognizes that many PA faculty still require foundational training in academic research. Over the last two years, applications have increased. However, increased support is needed for applicants to increase the quality of the proposals. During their evaluations, reviewers often point out significant issues with a research question, research methods, and analysis, which they believe point to areas in which professional development can be provided. The PAEA research team hopes to develop PA faculty research skills to the point where reviewers are debating the merits of research proposals rather than the feasibility.

In addition, feedback from some applicants asserts that this amount of money does not justify rigorous, original research. As you know, many large, research-intensive institutions often receive greater funding, nonetheless, we believe many PA programs would still benefit from the grant. Ultimately, we need to ensure that the grant still serves its purpose of developing early career researchers in conjunction with continuing to contribute to PA literature. While the purpose of the grant remains clear, it is reasonable to ask what the best way is to achieve it.

Given the current application quality and feedback about the amount of funding, there may be an opportunity to find common ground. We propose reducing the number of grants from three to two grants and increase the funding \$7,000.00/grant to \$10,500/grant. This would provide greater funding while still offering multiple grants for applicants to pursue. We welcome any feedback or recommendations as we seek to strengthen the grant going forward.



GOAL ACHIEVEMENT

Between 2001-2021, 241 PA faculty members have applied for the grant. Since 2011, 19 of 28 researchers have produced 4 manuscripts published and/ or under review in academic journals directly related to awardees' projects. 13 presentations submitted and/or given at academic or professional conferences. 17 poster presentations submitted and/or given at academic or professional conferences.



INVESTMENT

Between 2001-2021, PAEA has awarded 68 grants for a total of \$358,370.64.



DIRECTION

We are focused on integrating grant applicant demographics and outcome metrics into Salesforce to help attract applicants and grantees from diverse backgrounds, use PAEA Office Hours to enhance PA faculty research skills and knowledge, and consider consolidating the Don Pedersen Research Grants Program into two grants rather than three grants to attract high-quality research proposals.