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Diversity Graduate Student Research Grant Report
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SACNAS Two-Step Mentoring Program Towards Diversity in STEM Fields

This proposal involved a two-step mentor program: to facilitate the success of diverse students already enrolled within the science fields at the University of Delaware; as well as recruit and give potential diverse students with an interest in science opportunities to learn and understand how science can become a permanent part of their future.

We were able to accomplish using the following strategies:

1. By facilitating 3 different career workshops
2. By providing a summer research experience and mentor program for 2 high school students of diverse backgrounds

This program used a two-step mentoring program to help future and current science students learn and understand more about what a career in science truly entails. This program recruited diverse new cohorts of STEM field students here at the University of Delaware.

The second part of this two-part mentoring program involved industry scientists from outside the University of Delaware. These industries all hire graduates in STEM fields and would have essential information for students that could be potential coworkers in the future. Furthermore, these events were opportunities for students to network and understand where their potential careers could be headed in the future. This type of networking is critical for all students since in STEM fields, most graduates do not stay in academia and instead go on to work in industry. These speakers will help facilitate this transition to the work force more smoothly by answering questions and being a networking tool.

Our first seminar took place on January 31, 2014 and was attended by 78 graduate students. We had 6 speakers listed below, including our keynote speaker:

- Neal Hall, M.D., Partner; Clara Swanson, Social Media Behaviorist & Director of Social Media;
- Marina Zekova, Social Media Specialist
- T. Ben Hsu, Ph.D., M.B.A.: Chief Financial Officer, QPS Holdings, LLC
- Jessica A. Chichester, Ph.D.: Senior Scientist, Immunology, Fraunhofer USA Center for Molecular Biotechnology
- Shailaja Rabindran, Ph.D.: Assistant Director for Plants and Planting, U.S. Department of Agriculture
- Laura K. Povlich, Ph.D.: AAAS Policy & Technology Policy Fellow, Division of International Training and Research, National Institutes of Health
- Keynote speaker: Joanne Kamens, Ph.D.: Executive Director, Addgene Smooth Transitions, her talk was entitled, "Top 10 List: Things Scientists Ask About Finding an Industry Job"

Another seminar was also given involving writing a CV and resume, as well as an IDP workshop session. Dr. Justin DiAngelo ran this seminar from Hofstra University, NY. 35 students attended this program with disciplines ranging from Biology, Phycology, Engineering and Mathematics.

Our second seminar took place on February 6th, 2015 and was attended by 64 graduate students.

- Nicole Buist, Ph.D.: Principal Scientist Merck & Co., Inc.
- David J. DeGraff, Ph.D.: Assistant Professor Pennsylvania State University
- Chris Ahmer, P.S.M.: Marketing strategist DuPont Titanium Technologies
- Jeffrey B. Safran, Ph.D.: Patent Attorney Pottter Anderson & Corroon LLP
- Tricia Jones Kalafut, Ph.D.: Associate director Incyte Corporation
- Srinu Chigurupati, DVM, MVSc, Ph.D.: Office of Regulatory Science Food and Drug Administration
- Michelle Pusey, M.S.: Research Associate ONCOVEDA Cancer Research Center
- Sarah Cardozo Duncan: Career Strategist

This program was also able to fund and mentor two high school students in research labs during the summer of 2014. The two students were Ashton Noble an incoming junior at Dickinson High School and Aishwariya Iyengar, a sophomore of the Charter School of Wilmington. These students worked in the labs of Dr. Salil Lachke and Dr. Erica Selva. They worked approximately 20 hours a week for 6 weeks in the summer and were exposed to both lab techniques and culture. They both presented for their perspective labs during a lab meeting and wrote up a small summary of their summer work for their research mentors.

Both Ashton and Aishwariya completed a post-summer experience questionnaire which focused on questions like “What to did you hope to gain from this experience, and what do you feel like you gained from this experience?” Ashton said that he was looking to find experience in a lab and that he learned, “how complex but interesting science can be.” Ashton in the future said that he “hopes to have a job that's science related.” Ashton plans to apply for college this year and is applying to the University of Delaware as well as other schools. HE is now considering biology as a major.

Aishwariya said that, “This experience helped me gain knowledge on how to work and study in a lab. This opportunity helped understand what it is going to be like in my upcoming college career.” She said, “Before this experience I did not have a specific role model in science.”

By using this two-step mentoring model this program tried to give students at all levels more opportunities to learn and understand more about science and why science is so important. Research can be difficult and when new scientists are beginning there are many obstacles to over come. By having both graduate and undergraduate students interacting with both high school and senior scientists created opportunities to facilitate discussion and seek out scientific and career advice. This program focused on giving students opportunities to learn and grow for their future benefit.