

## Scholars Connect launches third year of internships

By Kelly Lenox

Now in its third year, the NIEHS Scholars Connect Program (NCSPP) got off to a busy start June 2-4, with an intensive training program taught by NIEHS postdocs.

Open to students in science, technology, engineering, and mathematics (STEM) majors from nearby universities, the internship attracts young adults with a wide range of academic experiences. Scholars in NCSPP will work full time over the summer, and 15 hours per week during the academic year.

### Linked Video

#### [Watch NCSPP interns at work and hear what the program offers. \(3:23\)](#)

Huei-Chen Lao of the NIEHS Office of Science Education and Diversity developed the training session, to ensure that each of the six new interns has the basic skills necessary for a successful start in the lab. The 2013 session (see [story](#)) was so successful, NIH requested that NIEHS interns in its [Community College Summer Enrichment Program](#) ([https://www.training.nih.gov/ccsep\\_home\\_page](https://www.training.nih.gov/ccsep_home_page))

- Coral Backman, Laura Finerty, and Atif Rafique - be included in this year's NCSPP training. This year's scholars, listed below, work in labs throughout NIEHS and NTP.

- **Brianda Elzey**, a senior at St. Augustine's University, works with mentor Natasha Clayton in the [Pathology Support Group](#), headed by Ronald Herbert, D.V.M., Ph.D.
- **Nichole Flynn**, a senior at North Carolina State University, works with mentor Ruben Orihuela Garcia, Ph.D., in the NTP [Neurotoxicology Group](#), headed by Jean Harry, Ph.D.
- **DeAsia Lewis**, a junior at St. Augustine's University, works with mentor Natalie Ren, Ph.D., in the NIEHS [Metabolism, Genes, and Environment Group](#), headed by Xiaoling Li, Ph.D.
- **Aaron Manning**, a junior at St Augustine's University, works in the NIEHS [Nuclear Magnetic Resonance Group](#), with staff scientist Geoffrey Mueller, Ph.D.
- **Carri Murphy**, a senior at North Carolina Central University, works with mentor Daniel Menendez, Ph.D., in the NIEHS [Chromosome Stability Group](#), headed by Mike Resnick, Ph.D.
- **Nicole Sciortino**, a senior at St. Augustine's University, works with mentor Linda Yu, Ph.D., in the NTP [Molecular Pathogenesis Group](#), headed by Darlene Dixon, D.V.M., Ph.D.

### From intro to bioassays in three days

The laboratory boot camp kicked off with a talk on molecular biology, followed by lessons on scientific methods and techniques.

The following two days involved hands-on lab experiences that ranged from learning to use the pipette and balance, to preparing the bicinchoninic acid protein assay and gel electrophoresis.

The tasks assigned the students were more than exercises. Instructor Misty Thomas, Ph.D., postdoctoral fellow in the NIEHS Macromolecular Structure Group, surprised the students when she revealed that the gel electrophoresis they would perform was part of her current research.

### Diversifying the scientific community

NCSPP was started in 2012 to help diversify the biomedical workforce. It offers paid internships to STEM students from historically black colleges and universities and other nearby academic institutions with students from underrepresented populations.

Promoting diversification of the biomedical workforce and training the next generation of environmental health scientists are among the priorities identified in the NIEHS [Strategic Plan](#). Last year's scholars completed successful research projects and delivered polished lectures at the end of the internship (see [story](#)), demonstrating the broad-based value of the experience. This year's group promises to be every bit as impressive.



Instructor Miranda Bernhardt, Ph.D., postdoctoral fellow in the NIEHS Reproductive Medicine Group, displays the manual dexterity that years of lab work can develop in a researcher. (Photo courtesy of Steve McCaw)



From left, interns Rafique, Finerty, and Elzey looked on as Thomas demonstrated one of the assay preparations. (Photo courtesy of Steve McCaw)



In the wrap-up session, Lao emphasized the importance of planning. "Before the end of the summer, talk to your mentor and establish the big picture for what you will accomplish over the fall, then set shorter term goals by the week and month," she said. (Photo courtesy of Steve McCaw)



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*Murphy got plenty of practice with pipette technique in the gel electrophoresis lab. (Photo courtesy of Steve McCaw)*



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*The small group allowed one-on-one instruction for student Manning, right, from Bernhardt. (Photo courtesy of Steve McCaw)*



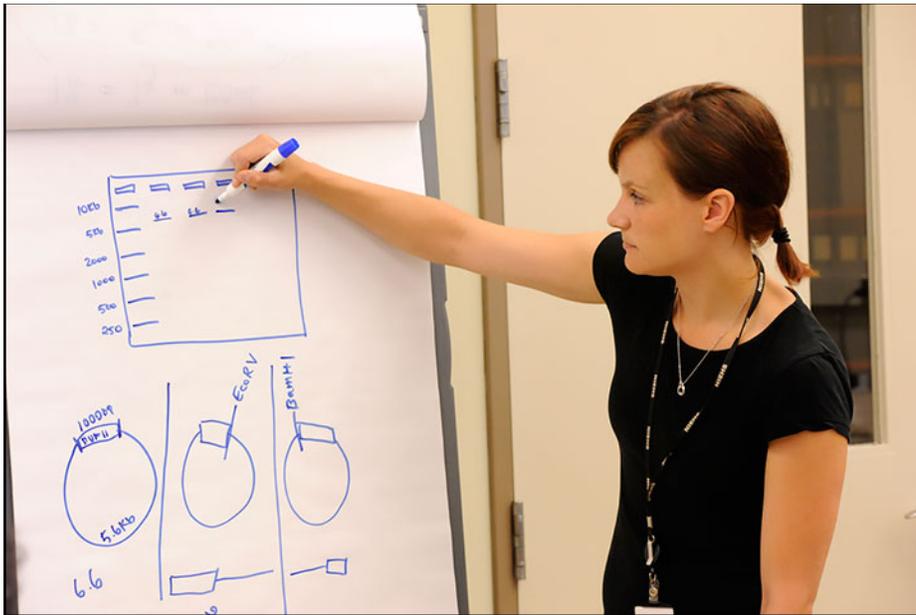
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*Murphy, left, and Backman paid close attention during one of the lab instruction sessions, which alternated with hands-on work. (Photo courtesy of Steve McCaw)*



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*Backman loaded protein samples for the gel electrophoresis. (Photo courtesy of Steve McCaw)*



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Thomas illustrated the possible outcomes of the diagnostic tests students were to perform. (Photo courtesy of Steve McCaw)



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Finerty and Rafique collaborated to complete the lab exercise. (Photo courtesy of Steve McCaw)

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