UCONN | CENTER FOR ACADEMIC PROGRAMS

RONALD E. MCNAIR POST-BACCALAUREATE ACHIEVEMENT PROGRAM

Center for Academic Programs, McNair Post-Baccalaureate Achievement Program

Lighting the fire: The McNair Fellows Program

INTRODUCTION

In fall of 2012, the U.S. Department of Education awarded the University of Connecticut a Ronald E. McNair Post-Baccalaureate Achievement Program grant. The UConn McNair Scholars Program, which is housed within the Center for Academic Programs and focuses on STEM fields, was met with enthusiasm from faculty members. Many offered support and guidance regarding program development and, during a series of meetings held by McNair staff, voiced the importance of early exposure to research. As a result of this feedback, the McNair Fellows Program was established.

Each year for two weeks in May, selected first and second year students participate in an intensive and structured residential experience at UConn, during which they attend faculty lectures, tour labs, shadow researchers, and explore career paths with mentors. The program culminates in the writing of academic papers and presentations of research findings. By the end of the two weeks, McNair Fellows have gained a solid academic base and laboratory skills while establishing important relationships with faculty members. They depart confident in their abilities to pursue full undergraduate research projects.

The McNair Fellows Program has quickly become a valued resource as the University seeks to strengthen STEM-based education and research in Connecticut. It also serves as a recruitment pool for the McNair Scholars Program. Interested students submit an application for the program, along with letters of recommendation and transcripts; eligible candidates are interviewed by members of the McNair Advisory Board. The first Fellows Program, launched in May 2013, included seventeen students, nine of whom are now McNair Scholars. Twenty-three Fellows participated in May 2014, five of whom were accepted into our newest cohort of Scholars. The list of interested students for the May 2015 program currently stands at forty.

First group of McNair Fellows May 2013

Second group of McNair Fellows May 2014

PROGRAM OUTLINE

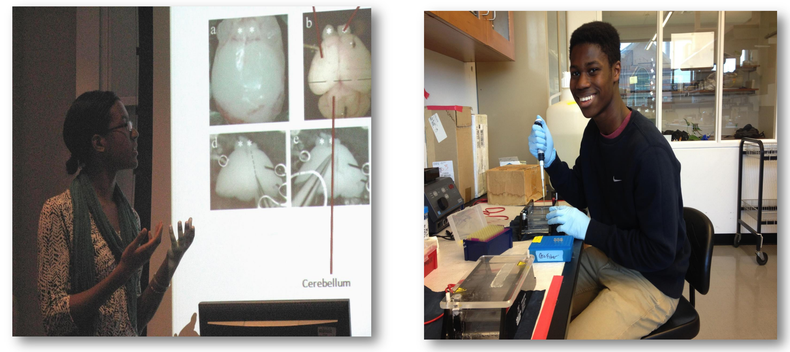
- **January/ February**: Call for applications; invite STEM professors and Ph.D. students to serve as mentors for McNair Fellows to shadow researchers.
- **March:** Applications due, interview candidates (rising sophomores and rising juniors)
- **May, Fellows Program:**
  - Starts immediately after spring semester
  - On-campus housing and meal plan are provided
  - Students log time with research group each day.
- **STEM Research Shadow Sites:**

Animal Science	Civil Engineering	Environmental Engineering	Pathobiology
Allied Health	Clinical Psychology	Materials Science	Pharmaceutical Sciences
Chemical Engineering	Electrical Engineering	Mechanical Engineering	Physics
Chemistry	Ecology and Environmental	Molecular and Cell Biology	Physiology and Neurobiology

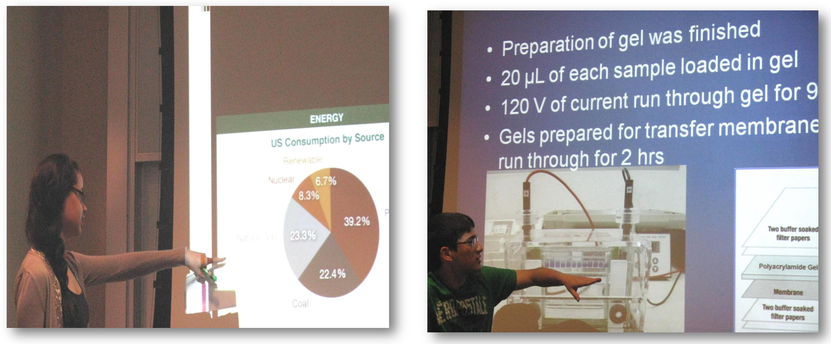
- **Days 1 – 3:** 5 STEM research talks and tours through research spaces on a rotating schedule, Writing workshop #1: Learn about writing an academic research paper; environmental health and safety: biological and chemical safety training
- **Day 4:** Writing workshop #2; begin hands-on shadowing with researchers
- **Day 5:** Shadow researchers all day
- **Day 6:** Saturday workshop: STEM Ph.D. student discussion panel
- **Day 7:** Sunday workshop: GRE and MCAT timeline; presenting your academic research
- **Days 8 & 9:** Shadow researchers all day
- **Day 10:** Career services internship workshop; writing workshop #3; shadow researchers
- **Day 11:** Field trip, cultural event (CT Science Center; Museum of Natural History)
- **Day 12:** Submit academic research paper on STEM topic; present McNair Fellows Research Experience

BY THE COMPLETION OF THIS PROGRAM, THE MCNAIR FELLOWS HAVE …

- ✓ Explored their interests in STEM
- ✓ Gained confidence speaking in front of a group, recording data, writing an academic research paper
- ✓ Networked with UConn faculty and Ph.D. students



Allison is describing neurobiology assays performed on rodents to learn about concussions; Limmond is preparing a DNA gel electrophoresis to study morphogenetic traits in flour beetles.



Gabrielle is explaining what she learned about energy and fuel combustion in a Mechanical Engineering laboratory; Jacob is sharing his gel electrophoresis experiment for protein identification with relation to acetaminophen toxicity.

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