With the start of the new school year, the EMU McNair Scholars hit the ground running by attending at the 18th annual 2014 MKN McNair Heartland Research Conference in Kansas City, MO. Ten EMU McNair Scholars presented their current research, visited a huge graduate school fair, and made connections with students and faculty from across the Midwest. Two EMU McNair Scholars share their insights into their time in Kansas City, while another scholar talks about the meeting of a lifetime, below!

Shahana Ahmed,
McNair Challenger Guest Editor

Dr. Tara Ruttley, Associate Program Scientist, International Space Station, and EMU McNair’s Kryn Marie Ambs

Dinner with an Astronaut by Kryn Marie Ambs, Senior in Aviation

During our McNair adventure to the Kansas City, MO Heartland Research Conference, I was asked to introduce the keynote speaker, Dr. Tara Ruttley, Ph.D., Associate Program Scientist for the International Space Station. It turned out that Dr. Ruttley has had an experience quite similar to mine. She first attended Michigan State University, leaving the institution with a GPA of well under 3.0. She headed off to Colorado, where she earned her Bachelors of Science in Biology at Colorado State University (CSU). While working on her undergraduate degree, Dr. Ruttley participated in the McNair Scholars Program and the Engineering Club, which led her to pursue her Master’s degree in Mechanical Engineering at CSU, and later her Ph.D. in Neuroscience at the University of Texas Medical Branch. She has served as an aquanaut on the NASA Extreme Environment Mission Operations 6 (NEEMO 6), as the lead hardware engineer for the International Space Station (ISS) Health Maintenance System, and is currently the Associate Program Scientist for the ISS. Dr. Ruttley, like me, has always held unwavering dreams of working for NASA, and has worked fearlessly to succeed.

Over dinner, I remember Dr. Ruttley’s burst of excitement about a recent Space X launch. “Did Space X launch?!” she asked, reaching for her phone. While most students check their Facebook and Twitter accounts, McNair Scholars are constantly checking their grades and the latest news in their field, too. It was not only an honor to introduce Dr. Ruttley, but it was humbling to realize that she shared a story parallel to all McNair scholars. Dr. Ruttley taught me that no matter how many times we fail, we must always find a way to persevere, and not lose sight of our dreams.
Tatanka Iotanka, better known as Sitting Bull, once said “Let us put our heads together and see what life we will make for our children.” That is one of the reasons I loved every minute of the MKN Heartland Conference. Often times we are surrounded by people that simply do not care about making the world a better place. However, at the MKN Heartland Conference, all the presenters showed a passion for improving the world through their research.

It is my belief that many of the participants in the conference will go on to make significant changes in science, government, and many more fields, and I was extremely grateful to meet them! I felt as though many of the other McNair Scholars, as well as the graduate program recruiters, were interested in my topic, which really eased some of my apprehensions about speaking. Afterwards, the comments were very helpful and are already being added to my research.

The graduate school fair was a great experience. Researching schools online is helpful, but actually being able to talk to a representative/recruitment advisor in person was far more beneficial. The representatives from each school showed enthusiasm and knowledge about their respected programs. Most importantly, I was able to add a few schools to my watch list that I otherwise might not have considered. It was an honor to attend the MKN Heartland Research conference with so many motivated students, supportive participants, and informative graduate school representatives!
Applying to Graduate Programs: A Survivor’s Guide
by Adam Natoli, EMU McNair Graduate Assistant Extraordinaire!

Here it comes again: graduate school application season — a time of excitement (and stress), optimism (and pessimism), and hours upon hours of time dedicated to completing your applications (and Netflix). Graduate applications can be scary, but you will get through them alive, and wiser from the experience. Speaking of experience, let me share with you a couple of things I’ve learned from my own history with the graduate application process.

- Have you created a list of programs and faculty you would LOVE to work with? Good!
  - The best thing is to get an early start compiling as much information as you can about potential graduate programs and potential mentors and about EACH program’s application process and the materials (remember those Graduate Program Spreadsheets you did for McNair???)!

- Did the faculty members from those programs respond to you very professional inquiry about their research? Are they looking for potential graduate students during this application cycle?
  - Remember: you must CONTACT FACULTY! Don’t feel as if you’re overreaching!
  - However, BE PREPARED when contacting them. You MUST be well informed about their research! Ask intelligent questions about it (e.g., “I recently read your publication on blank and I found it quite ______. I’m quite interested in learning more about this research’s future direction in your lab.”)

- ASK FOR HELP!
  - Many of us are always hesitant to ask for help. But where does that get you? Why not be independent by reaching out for help? Why not be strong by knowing when you could use some help? The thing is, asking for help IS a way to help yourself!

- There’s a secret ritual through which all great personal statements go.
  A. Write a draft.
  B. Ask someone to review your draft.
  C. Go back to “A.”
  D. When you feel you’re ready to submit your personal statement, go to “B” once more. Then submit and smile. Always smile.

- Make the process easy for those writing your letters of recommendation. Provide them with a packet that includes the following:
  - A thank you letter that also provide them with any further assistance in the process and your contact information.
  - A complete list of the programs and faculty to which you’re applying, and each program’s instructions for submitting a letter of recommendation.
  - A sample personal statement.
  - Your curriculum vitae.
  - A list of research, lab work, courses, and projects you were involved in with them.
  - Any letter of recommendation forms necessary with your personal information already filled out. (Always waive your right to review).
  - Pre-addressed and stamped envelopes, if necessary!!

- Finally, how do you become an expert and produce an impeccable product? You obsess.
  - Now, don’t forgo all other areas of your life, but allow a certain level of obsession into your graduate application process. Over-prepare, over-organize, and hope to be overwhelmed with acceptance offers!! GOOD LUCK!!!
Who is McNair? What is McNair? We are McNair!

Ronald Erwin McNair was born October 21st, 1950 in Lake City, SC. He attended North Carolina A & T State University, where he graduated Magna Cum Laude, with a B.S. degree in Physics in 1971. McNair then enrolled in the prestigious Massachusetts Institute of Technology. In 1976, at the age of 26, Ronald E. McNair received his Ph. D. in Physics. Dr. McNair soon became a recognized expert in laser physics while working as a staff physicist with Hughes Research Laboratory. He was selected by NASA for the space shuttle program in 1978, and served as a mission specialist aboard the 1984 flight of the Space Shuttle Challenger. Tragically, on January 28th, 1986, Ronald E. McNair and the rest of the seven-person Challenger crew died in an explosion shortly after take-off.

To honor the numerous achievements and the legacy of Dr. McNair, the Ronald E. McNair Post-Baccalaureate Achievement Program was begun in 1989 to offer support services to high achieving students on their quest to attain a doctoral degree. Eastern Michigan University is one in a highly elite group of institutions selected by the U.S. Department of Education to host a McNair Program. The ideal McNair Scholar is goal-oriented, disciplined, creative and inquisitive. McNair Scholars enjoy learning and are willing to listen and grow through their interaction with their mentors, advisors, and peers. Membership in the McNair Scholars Program is challenging, but the rewards are great. EMU McNair Scholars are the pride of our staff, professors, and the Eastern Michigan University community!

Adapted from the Eastern Michigan University “Ronald E. McNair Post-Baccalaureate Achievement Program Student Handbook,” written by Program Director, Dr. Heather Neff, Ph. D.