In addition to my role as director of our McNair Scholars Program, I am also privileged to serve on the board of the San Antonio Education Partnership and on the SA2020 Commission on Education. I’d like to make a few observations from this vantage to help underscore the key role that the University plays in the city’s PK-16-plus education landscape.

Many in the Trinity University community are aware that the McNair Scholars Program has an on-campus counterpart in Upward Bound, another federally funded program that prepares first-generation, low-income high school students for success in college. In fact, a few of the McNair Scholars now preparing for graduate study gained their initial up-close glimpse of higher education while still in high school by taking part in the Upward Bound Program housed in the University’s education department. Together, McNair and Upward Bound are among eight federal TRiO programs that offer educational support services to those from disadvantaged backgrounds.

San Antonio boasts a number of TRiO programs at all of the city’s universities and at most of its community colleges; these serve thousands of high school and college students who might otherwise fall through the cracks in the local education pipeline. Any sober-minded analysis of the K-12 and college education pipeline in San Antonio quickly identifies gaping cracks. Local think tank Intercultural Development Research Association puts the public school attrition rate in Bexar County at 25 percent; this means that one in four ninth graders fails to complete her or his high school degree three years later.

Fortunately, a number of public and private institutions have stepped up to help fix the leaks in the education pipeline. Local voters recently approved a tax increase to support the Pre-K 4 SA program, which provides quality instruction for local three- and four-year-olds. Longtime public school superintendent and Trinity alumnus Richard Middleton, along with education department chair Shari Albright, serve on the Pre-K 4 SA board of directors.

Even students who successfully navigate the primary school landscape have a difficult time translating their experience into college success. For this reason, a number of local organizations (such as the Education Partnership) provide much needed college access programming. One such organization—Advise TX—makes its home on the Trinity campus and draws from the talents of recent Trinity graduates who fan out across the city to help make college a reality for local high schoolers.

With so much going on locally, the P16 Plus Council of Greater Bexar County was created to convene stakeholders and to provide guidance to institutions at all levels of education, from early childhood to postgraduate. Among the P16 Plus leadership team is Trinity University president Dennis Ahlburg, who serves on the group’s board.

The education pipeline metaphor falls far short of describing the intricacies and difficult challenges of the educational system; students and schools require more than a skillful plumber and Teflon tape if they’re to thrive. Fortunately, Trinity University students and alumni play active and indispensable roles throughout the system, from student teachers and volunteers to school CEOs and elected officials.

Seen in this light, the McNair Scholars Program is one player in a much larger and truly formidable Team Trinity.

Michael Soto

A Message from the Director

The McNair Scholars Program kicked off the fall semester with its annual welcome back meeting hosted by program associate director Teresa Morrison at her home in San Antonio. It was a full house as eleven new Scholars—eight sophomores and three juniors—joined the ranks with 17 returning Scholars. In addition, we also welcomed incoming tutorial faculty member, Prof. Rosana Blanco-Cano.

Introductions started things off and then it was on to an ice-breaker, getting Scholars ebbing and flowing in “tidal waves” across the living room as they responded to questions about whether or not they have met anyone famous, traveled anywhere out of country, or if they were an only child. After general announcements, guests were invited to help themselves to a buffet of home-cooked spaghetti and meatballs, salad, and garlic bread.

Program director, Prof. Michael Soto, gave the keynote address in which he described his own experiences as an undergraduate and his path to becoming a faculty member. The night ended with an ice-cold dessert of fruit sorbet (a returning favorite), Program reminders, and a question and answer period. We are looking forward to a great year.

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2014 Summer Research Experience (SRE)

From May 19 to July 25, fifteen Scholars (seven rising juniors and eight rising seniors) completed the 2014 McNair Summer Research Experience (SRE). During that time, twelve Scholars resided on campus, while three Scholars were off-campus. The majority of the Scholars worked with Trinity faculty members, although four Scholars worked with external mentors at DePauw University (Greencastle, IN), the Musk Ox Farm (Palmer, AK), The University of Texas Health Science Center at San Antonio (UTHSCSA), and the San Antonio Education Partnership (SAEP). Scholars completed a wide variety of thought-provoking projects ranging from measuring Benzyl Alcohol adsorption thermodynamics on supported gold catalysts to studying the film and television industry in mainland China, and from investigating ADHD and art therapies to exploring the association between microglial activation and prefrontal-cortical dysfunction in human postmortem brain samples.

At the end of the ten weeks, each Scholar had the opportunity to present his or her research via an oral or a poster presentation at the 9th Annual Summer Undergraduate Research Conference and 30th Annual Department of Chemistry Research Symposium held at Trinity on July 24-25, 2014. Local Scholars culminated their experience at the 2014 McNair Summer Research Banquet on July 24 at the Holt Conference Center on campus. During this event Scholars and their mentors were recognized for their accomplishments over the course of the SRE. Councilman Rey Saldana of District 4 (and TRiO alumnus) delivered the keynote address.

Leslie Cook (senior) worked with Prof. Bert Chandler (chemistry) on “Characterization Studies of Gold Nanoparticle Catalysts Using the Selective Oxidation of Benzyl Alcohol.” Here Leslie is in front of the hood showing the stir plate stand where the reaction took place, along with the nitrogen gas that flowed over the reaction.

Namchi Do (junior) worked to create a browser-based IDE for functional Scala as well as media and reactive Scala libraries that can be used in Scala.js, a Scala to Javascript compiler. Namchi completed her project, “Scales IDE: A web-based development environment for teaching functional reactive programming using media computation,” at DePauw University under the supervision of Prof. Brian Howard (computer science).

Giovanna Espinoza (junior) worked with Drs. Rosana Blanco-Cano and Rita Urquijo-Ruiz (modern languages and literature) to complete, “Empowerment of the U.S. Latina: The Role of Higher Education in the Films Real Women Have Curves (2002) and Mosquita y Mari (2012).”

Sonny Luna (junior) worked with Prof. Rocio Delgado (education) to determine “How Students with Learning Disabilities Respond to Art Education.” She spent many hours in the classroom and transcribed observation notes.

Franchesca Escapita (junior) completed “Measuring the Impact of the San Antonio Education Partnership’s Services on Student Access and Success” with Eyra Perez at the SAEP. Franchesca led multiple focus groups to gain much of her data.

Anthia Liu (senior) participated in the Shanghai Faculty-Led Summer Program, working with Prof. Jie Zhang (modern languages and literature) on her research project, “Challenges of Mainland China’s Film and TV Industry.” Anthia visited the Shanghai Film Museum, where she collected information on the history of film and TV in Shanghai.

Ismerai Monreal (senior) spent her summer coding data from United Nations Committee reports. Her project, “The Unusual Suspects: The Reasons behind Human Rights Violations in Developed Countries,” was completed with Prof. Rosa Aloisi (political science).
Gabriella Montemayor (senior) worked with Prof. Charlene Davis (business) to complete, “Reducing Overpopulation by Offering Low-Cost Health Services.” Gabby worked closely with San Antonio Pets Alive (SAPA) to understand the issue of animal overpopulation and its effects on the community.

Rosa Olivares (senior) looked at “Fiesta Fundraising: Filling the Gaps of AIDS Service Organizations in San Antonio,” working with Prof. Amy Stone (sociology). Rosa’s research included transcribing interviews with professionals at several service organizations.

Christian Tovar-Vargas (senior) worked with Prof. Harry Wallace (psychology) on “Narcissists are Less Prone to Come Up Short (Literally) Under Pressure.” To complete his study, Christian evaluated participants’ performance on a target-aiming task.

Mary Moscosa (junior) completed, “Disciplines as a Cultural Factor and Its Contribution to CEO Success or Failure,” conducting case studies of several business men and women with Prof. Deli Yang (business).

Tae Sakong (senior) grew cell cultures of astrocytes to complete his project, “ApoE in Astrocytes: From Gene Expression to Production and Secretion,” Tae worked with Prof. James Roberts (neuroscience).

Arnulfo Tuñon (junior) completed an “Assessment of Peripheral Immune Parameters as Non-Invasive Measure of VNS Efficacy: A Pilot Study” with Prof. Jason O’Connor (pharmacology) at UTHSCSA. Here Tuna was examining blood smears stained for white blood cells.

Swanson Recognized as a “Model” Scholar

Sophomore Scholar Nick Swanson (Engineering Science and Physics) got a nice surprise when his model for the Center for the Sciences and Innovation (CSI) was presented to Congressman Lamar Smith during a recent visit to campus. The model was offered as a memento of the Congressman’s tour of the CSI facilities, where the McNair office is housed, to learn more about our campus.

Nick has been working with Prof. Jack Leifer, associate professor of Engineering Science and McNair Tutorial Faculty, on various projects in Leifer’s lab for some time. Earlier this summer, at the request of director of Campus Planning and Sustainability John Greene, Leifer tasked Nick with designing a model of CSI in Creo, a solid modelling program that is taught in first-year engineering design (ENGR 1381). “Nick took the project and ran with it, and produced an excellent replica of our buildings that has been printed out using our 3D printer,” Leifer told us. “John Greene was part of the tour, and he came bounding up to my office and asked for the model, which I gave him with no hesitation.” He further beamed that Nick should feel good about what he’s done with the project so far, which is still getting some finishing touches.

When asked about this honor Nick said, “I’m absolutely ecstatic! The project taught me that there is a world of difference between perception and reality when it comes to design. What a client wants and perceives in something like a model is far more important than the actual dimensions of what you’re modeling.” Nick’s work, and what he has programmed the 3D printer to do, are pretty amazing and we couldn’t be prouder.
Alumni Spotlight: John Kerr

With the help of the Trinity University McNair Scholars Program, alumnus John Kerr has found his niche. “I wouldn’t be where I am today without the hard work and care of all the people involved with the McNair Program at Trinity. I absolutely mean this from the bottom of my heart, thank you all so much.”

John graduated with a Bachelor of Science in engineering science from Trinity University in 2012. “The engineering program at Trinity gave me the solid foundation of knowledge and skills that allowed me to excel in my future studies. Unlike other 4-year programs that focus specifically on one field of study, the goal of the engineering program at Trinity, in my mind, is to produce well-rounded graduates that are ready to solve any engineering puzzle.”

With this foundation of education, he sought a graduate program that could build on what he’d learned and give him a focused understanding of computer architecture, a field he is truly passionate about. He found what he was looking for at Cornell University, where he earned his Master of Science in engineering in electrical and computer engineering in 2013. “The one-year engineering master’s program at Cornell was the most intense and grueling year of my life, a true test of my mental and emotional stamina. Though, as with many things in life, the higher the difficulty, the greater the reward. I got exactly what I needed out of my time at Cornell, and was able to land my dream job working as a graphics hardware engineer at Intel.”

At Intel, John is the validation unit owner for a cluster of units contained within the graphics pipeline of Intel’s on-chip integrated graphics. His responsibility is to ensure that a very specific part of the processor is fully tested and functional before it is passed along to be fabricated and used to run whatever device necessary: phone, tablet, laptop, desktop computer, etc.

While he had originally planned to move from being a validation unit owner to a design unit owner after gaining more experience with the Intel architecture, he says, “I absolutely love my job right now. Design is still something that I am considering, but I may just stick with validation and move up to greater responsibilities within that field.”

John has learned a lot about what he wants and how to get it. “I won’t lie, the road ahead is tough. Graduate school is definitely not something to take lightly. However, I guarantee you that whatever challenges you face in your respective fields, Trinity has prepared you for them. Any time it gets seemingly overwhelming, know that it is absolutely worth it, and that you can and will find the determination to carry on and succeed.”

Alumni Spotlight: Peggy Guo

Peggy Guo has found what she truly loves to do. “I work long hours now but the work hours pass by so quickly. It sounds nerdy but I am actually quite sad that it’s Friday now because I won’t get to go see my patients and follow up on them over the weekend. It’s really true that when you do something you love, you will never work a day in your life.”

After graduating from Trinity in 2012 with a Bachelor of Science in biochemistry and molecular biology, Peggy enrolled at UT Southwestern Medical Center at Dallas. Now, she is a third year medical student in the wards, researching the use of electronic medical records and how they have impacted patient care and teaching in an academic medical setting.

Peggy is considering going into pediatric residency and perhaps specializing in hematology or oncology. “It’s great because I still have so many options open for me.”

Her advice to current scholars? Don’t sweat the small stuff. “Looking back, that B+ I got in physical chemistry really doesn’t mean anything when I’m in the hospital taking care of patients. Pre-meds like to complain, a lot. That’s fine because it lets you decompress, but don’t forget to stand back and take a deep breath once in a while.”
On Wednesday, June 11, we were lucky enough to visit with three McNair alumni. With the expertise and dedicated assistance of Paul Feuerbacher, media productions technician in Trinity’s CLT, we were able to touch base with Scholars from all over the country via Skype at our SRE Weekly Wednesday Workshop.

During the second annual “Graduate Research: A Virtual Symposium” we were joined by alumni Scholars Rebecca Carey (B.A., May 2012), Mellissa Delcont (B.S., December 2012), and Devon Powers (B.S., May 2013). Rebecca has just entered her third year at Stanford University in Palo Alto, CA, working toward her Ph.D. in Psychology. Mellissa is in her second year of a Medical Scientist Training (M.D./Ph.D.) program at the University of Colorado School of Medicine in Denver, CO, while Devon has just begun the second year of a Ph.D. program in Chemical and Biological Engineering at Vanderbilt University in Nashville, TN.

These Scholars were invited to share their experiences with research at the graduate level, including how their undergraduate research and participation in other McNair programming was helpful in their graduate pursuits. They graciously answered questions from the summer researchers and McNair staff and offered a lot of great stories, tips, and advice. We hope to continue to host this extremely beneficial event in the coming summers.

Prof. Rosana Blanco-Cano Joins the Program

We would like to welcome Prof. Rosana Blanco-Cano, associate professor in the Department of Modern Languages and Literatures, to the McNair Scholars Program. She joins us as the new tutorial faculty member, working with this year’s sophomore class. A Mexico City native, Prof. Blanco-Cano received her B.A. in Hispanic Literature from the National University of Mexico. She completed a Masters and Ph.D. in Spanish, with a specialization in Mexican cultural studies, at Tulane University in New Orleans.

During her years at Trinity she has taught a wide variety of courses on language, writing, literature, and culture. She has created a number of new classes in which she favors an interdisciplinary approach and has participated in several teaching and academic experiences in Mexico with Trinity students, tying her teaching in a number of ways to her scholarly research, which focuses on (trans)national Mexican cultural studies, gender and performance studies, Latin American cinema and Spanish cinema.

Prof. Blanco-Cano lives with her daughter, Maya, her husband, Javier, and their two dogs, Uma and Chachi (whom she can’t live without!). She loves the arts, especially cinema from everywhere. “I feel so fortunate to have a job in which I get paid to do what I love the most,” she told us. She’s also currently developing an interest in gardening. On working with our Scholars Prof. Blanco-Cano said, “I feel very honored to serve as a McNair faculty tutor. When I was an undergraduate in Mexico City, I was fortunate to find a couple of mentors who gave me the support to believe in myself. I have been given so much in life, so I feel it’s my turn to give back. Passing on what I know to students is very rewarding for me.”

Alumni Updates

All alumni Scholars should regularly update their information via the Alumni Update Form (web.trinity.edu/x28826.xml) on our website.

This data is for our Annual Performance Report (APR) for the Department of Education and is critical in maintaining Program funding. Your help ensures we will continue to be able to provide services to other Trinity students like yourselves.
Welcome New Scholars for 2014-2015

This fall 11 new students joined the McNair Scholars Program! Along with an overview of upcoming activities and events they heard at the Welcome Back Meeting, all new Scholars also attended a McNair 101 session to learn even more about the Program, what it provides, policies and procedures to be followed, and Scholar responsibilities. In addition to the updated Scholar Handbook, new Scholars also received a McNair t-shirt, a flash drive, and an iPad mini so they can utilize the McNair Postbaccalaureate Access Network (PAN) to help them succeed in the Program. We are excited to welcome the following new Scholars:

- **Karina Cabrera**
  - Class/Major: Sophomore/Biochemistry and Molecular Biology
  - Hometown: Humble, TX

- **Amanda Cantu**
  - Class/Major: Sophomore/Biology
  - Hometown: San Antonio, TX

- **Liliana Diaz**
  - Class/Major: Sophomore/International Business
  - Hometown: Fort Worth, TX

- **Cole Evans**
  - Class/Major: Junior/Psychology & Neuroscience
  - Hometown: Dallas, TX

- **Martel Matthews**
  - Class/Major: Junior/Business Marketing
  - Hometown: Houston, TX

- **Yvette Muniz**
  - Class/Major: Sophomore/Geoscience
  - Hometown: San Antonio, TX

- **Heather Robinson**
  - Class/Major: Sophomore/Music Composition
  - Hometown: San Antonio, TX

- **Anthony Sanchez**
  - Class/Major: Sophomore/History & International Studies
  - Hometown: Sinton, TX

- **Megan Medrano**
  - Class/Major: Sophomore/Economics & Sociology
  - Hometown: Houston, TX

- **Steven Sannoh**
  - Class/Major: Sophomore/Accounting
  - Hometown: Houston, TX

- **Nicholas Swanson**
  - Class/Major: Sophomore/Engineering Science & Physics
  - Hometown: North Richland Hills, TX

- **Anthony Sanchez**
  - Class/Major: Sophomore/History & International Studies
  - Hometown: Sinton, TX

- **Megan Medrano**
  - Class/Major: Sophomore/Economics & Sociology
  - Hometown: Houston, TX

- **Steven Sannoh**
  - Class/Major: Sophomore/Accounting
  - Hometown: Houston, TX

- **Nicholas Swanson**
  - Class/Major: Sophomore/Engineering Science & Physics
  - Hometown: North Richland Hills, TX
Cultural Event: “Summer Researchers Experience the Zootennial”

Back by very popular demand, we once again had the pleasure of visiting the San Antonio Zoological Gardens & Aquarium on July 13 during the Zootennial celebration. Mr. John Gramieri, Mammal Curator, and several zoo staff gave us a wonderful behind-the-scenes look, highlighting a number of animals and showing off some of their newest exhibits and additions. We got the day off to a roaring start with a cautious tour of the lion house, where we got up close and personal with two African lions, as well as a mother Sumatran tiger and her cubs. Although there was still a wire cage between us, trust when we say they are MUCH larger and even more majestic and beautiful in person that you could ever imagine! We also saw a warthog family with brand new piglets (soooo cute!), an encore performance of the elephant show, the future home of the refurbished giraffe exhibit, the holding area for the hippos, and so much more. Plus, we even got to wave to our old friend, Kutu, the rhinoceros we got to pet a few years ago. The day ended with a tasty lunch at Zootennial Plaza, where we lamented that there was no time to ride the custom-designed carousel. The entire zoo staff were extremely welcoming and shared many facts about the zoo and its inner workings, the animals they currently house and hope to house in the future, the background and education required to work at the zoo, and tips on how to secure an internship. It was a very enjoyable and informative day, and we look forward to going again soon.

Cultural Event: “The Book of Life”

On Saturday, November 1, Prof. Rosana Blanco-Cano led a group of Scholars and staff to see The Book of Life at the Alamo Quarry Regal Cinema. According to Prof. Blanco-Cano, “The Book of Life is a fantastic visual experience that, at the same time, enables spectators from all backgrounds to connect with one of the most rich cultural Latino/a experiences, Dia de los Muertos. The Book of Life is masterly produced by a U.S. Latino/a and Latin American crew, introducing a cultural perspective that has been historically erased from mainstream cinema. I wanted to celebrate this important accomplishment with our McNair Scholars.”

Everyone thoroughly enjoyed the outing as a whole, including a tasty debriefing at Amy’s Ice Creams. “The movie was great!” said Yvette Muniz, sophomore. “I loved that we all got together to talk about it at Amy’s afterwards, which actually helped me understand some key themes and perspectives in the movie I had not realized before. Yummy ice cream was a plus!” Prof. Blanco-Cano concluded, “It was a wonderful opportunity to share one of my passions, cinema.”

Graduating Seniors’ Words of Wisdom 2014

“Take advantage of the workshops, sessions, and lessons over the summer. They may not seem like fun at the time, but you’ll be grateful in the fall!”
– Ambreen Hooda ’14

“Be yourself and figure out YOUR path. Somehow, you will get to where you’re supposed to be.”
– Shalee Wallace ’14

“Always seek the truth. But first, know thy God and thy self.”
– Anonymous

“You are amazing! Always remember your accomplishments!”
– Valerie Martinez ’14

“Enjoy your research! Take a risk and discover something new!”
– Katy Yachinich ’14

“The McNair Faculty are some of your best resources. Don’t be nervous to ask for their advice because they are always looking out for you.”
– Terrin Blackmon ’14

“Enjoy your research. You’ll be spending a lot of time with it. Enjoy Trinity. You’ll be here for a few more years.”
– Shacoya Atkins ’14

This year our Scholars have received admission to graduate programs across the country, including:

- Columbia University
- Emory University
- New York University
- Notre Dame University
- Rice University
- Texas A&M University Health Science Center McAllen
- Texas Christian University
- The University of Texas Health Science Center at Houston
- Trinity University
- University of Alabama-Birmingham
- University of California Los Angeles
- University of Illinois-Urbana Champaign
- University of Michigan
- University of North Texas Health Science Center
- University of Texas at San Antonio
Congratulations to our recent graduates!

Shacoya Atkins  
B.A., Sociology and Human Communication  
May 2014

Terrin Blackmon  
B.S., Biology  
May 2014

Megan Garcia  
B.S., Engineering Science  
May 2014

Vanessa Ortiz  
B.A., Anthropology  
May 2014

Ambreen Hooda  
B.A., English (honors)  
May 2014

Valerie Martinez  
B.A., Anthropology and Sociology  
May 2014

Camilah Powell  
B.S., Engineering Science  
May 2014

Victor Rodriguez  
B.A., Spanish and German  
B.S., Biochemistry and Molecular Biology  
May 2014

Shalee Wallace  
B.S., Biology  
May 2014

Katherine Yachinich  
Bachelor of Music, Choral Music (Magna Cum Laude)  
May 2014

Fall 2014 Conferences

Sonny Luna  
McNair Research Conference at the University of New Mexico  
Albuquerque, NM  
October 2014

Fall 2014 Teacher Education Conference  
Austin, TX  
October 2014

Anthia Liu  
McNair Research Conference at the University of New Mexico  
Albuquerque, NM  
October 2014

Arnulfo Tuñon  
Society for Neuroscience National Meeting  
Washington, DC  
November 2014

Tae Sakong  
Society for Neuroscience National Meeting  
Washington, DC  
November 2014

Junior Sonny Luna and Senior Anthia Liu at the UNM conference.

"The National McNair UNM Undergraduate Research Conference was an incredible experience overall. It was humbling to see the diversity of students in all the different fields of research and it was especially exciting to be in the enchanting state of New Mexico. The conference was enjoyable and informative. I was inspired to know that as a McNair Scholar, I am connected to the larger McNair family that spans all over the nation. It was also encouraging to see McNair Scholars who have established themselves in academia and professional industries coming to the conference to share their stories and knowledge with us."

- Anthia Liu

Planned Spring 2015 Conferences

Alexis Daggett  
Society for Integrative & Comparative Biology  
West Palm Beach, FL  
January 2015

Cole Evans  
Society for Personality and Social Psychology Conference  
Long Beach, CA  
February 2015

Christian Tovar-Vargas  
Society for Personality and Social Psychology Conference  
Long Beach, CA  
February 2015

Rosa Olivares  
Pacific Sociological Association Annual Meeting  
Long Beach, CA  
April 2015