The goal of the McKnight Doctoral Fellowship Program is to increase the number of individuals who earn Ph.D.’s in Florida and then use their research and training in positions in or outside of academia to effect positive change. Starting with our New Fellows Orientation, we achieve these goals by providing opportunities for Fellows to sharpen skills and prepare to compete for employment in a highly competitive market place.

Indeed, this edition of the Focus illustrates how that preparation started for our 2015 new class of Fellows at their June Orientation, where distinguished administrators and faculty guided them on how to begin their programs with an eye toward ensuring future marketability, by polishing research and writing skills, immediately seeking and pursuing avenues for collaboration and publication, and networking with advanced scholars in their fields and beyond.

In addition to providing our Fellows with multiple annual occasions to explore the job market, develop effective portfolios, and hone interviewing techniques, we go to great lengths to ensure that McKnight workshops and conferences enable Fellows to network with accomplished faculty and administrators who can serve as mentors, invite them to collaborate, and hire them.

You will read in this edition of the Focus about esteemed McKnight alumnus Dr. Mark Dawkins, the recently appointed Dean of the College of Business at the University of North Florida, who, along with many McKnight graduates and other scholars, returns to our meetings yearly to help our Fellows equip themselves to compete for faculty positions or pursue other career paths.

As recent studies indicate that fewer than half of today’s Ph.D. graduates will secure tenure-track faculty positions, we have expanded our efforts to help Fellows pursue those other paths, including post-doctoral appointments, jobs in government and the private sector, and, when feasible, entrepreneurship.

In this edition of the Focus, you will meet Fellow Michael Cross, an applied physicist for whom entrepreneurship is quite feasible. Cross is close to bringing his discoveries in tissue engineering to the market and will likely begin his career selling and further developing his technology. We recruited Cross as part of our push to respond to the State’s call to increase the number of Ph.D.’s in STEM.

We heed that call at the pre-college level as well, for students in grades 6 through 12, where we continue to run contests to expand proficiency in mathematics and offer intensive summer programs that expose participants to the possibilities and rigors of applied math and technology.

As you will read here, we also this year started working with students year-round in Miami-Dade, teaching them computer programming and its application to many careers. We have designed this and other programs to help students develop the skills they will need to pursue advanced degrees and/or careers in STEM.

Together, Dr. Paul Dosal and Dr. Edythe Abdullah have spent 60 years as professionals in higher education. As keynote speakers at the 2015 McKnight Fellows’ Orientation last June, they shared experiences, advice and humor with the 2015 cohort of new McKnight Doctoral Fellows.

Dr. Paul Dosal, the Vice Provost for Student Success at the University of South Florida, has also taught as Professor of History at USF and the University of Massachusetts Amherst for 28 years and is the author of four books on modern Latin American history. Speaking at the Orientation Luncheon, he congratulated the students for their phenomenal work and applauded their decision to join the professoriate. “It makes a difference,” he said, to have more historians teaching our history, but there still “aren’t enough of us.” Only four percent of full professors are African American, and only three percent are Hispanic, he said, and while a third of all full professors are female, females comprise more than half of students enrolled in college. In 75 years, he lamented, the overall percentage of minority professors has increased only eight points, to 25%.

Dr. Dosal thus urged the audience to persevere even in the midst of challenges...
Dr. Mark Dawkins Continues the Push for Diversity in New Dean Post at UNF

As the recently appointed Dean of the Coggins College of Business at the University of North Florida, Dr. Mark C. Dawkins is one of only 20 underrepresented minority deans of a majority business school in the United States. The move to UNF, a school of 16,000 students in Jacksonville, Florida, is a homecoming for Dawkins following 21 years on the faculty of the Terry College of Business at the University of Georgia. The appointment caps a career rooted in dedication to his chosen discipline—accounting—and a desire to motivate others, especially minorities, to pursue business careers.

The son of a physician and nurse, Dawkins originally planned to become an engineer but switched fields after taking an undergraduate introduction to accounting course. After graduating from Georgia Institute of Technology, he earned two master’s degrees, in business (finance) and accounting (auditing), from the University of Florida before successfully pursuing his Ph.D. in accounting from Florida State University while a member of the first class of McKnight Doctoral Fellows.

Early in his career, Dawkins committed himself to inclusion. Even as a struggling assistant professor at the Terry College of Business, he strived to increase minority representation, and two years after his promotion to associate professor, the dean recognized his efforts by making him the College’s first Director of Diversity Relations. Four years later, after the college hired a full-time Director, Dawkins became Associate Dean for Academic Programs for six and a half years, until deciding to return to full-time teaching and research in 2014.

During his two decades in Georgia, Dawkins published extensively in leading journals. He also earned numerous accolades for his work with institutional, professional, and service organizations, including seven teaching awards, the Terry College of Business Faculty Service Award, the McKnight Tribble Award, and the Ernst and Young Inclusive Excellence Award. This year, he will be inducted into The PhD Project Hall of Fame for his contributions to diversity in business over the last 20 years.

Dawkins believes diversity in the world of business will benefit society as a whole and cites U.S. demographic trends as well as globalization as factors that necessitate the change. “It is increasingly critical that businesses ensure their workforce diversity is similar to the diversity of their customers. Additionally, research shows that diverse work groups, with male and female employees from various races and ethnicities who draw on differing experiences, generate more business ideas and produce better financial results than homogeneous groups. With respect to community and societal benefits, increased diversity in business professions will attract more students of color to pursue business careers and make members of our increasingly diverse society more comfortable engaging with businesses to improve their lives and the lives of their families.”

Dawkins personally exemplifies his commitment to diversity as well, in yearly presentations at McKnight conferences and financial contributions to the organization. “We didn’t succeed on our own,” he says. “So I have the same obligation to reach back and help others earn their degrees and further diversify their fields and also have the kinds of opportunities afforded to me.” In his own academic matriculation, he particularly cites his experience as a McKnight Doctoral Fellow and mentoring from Dr. Ron McDavis, a former dean at the University of Florida and current President of Ohio University, as factors that helped him through.

Now back in his hometown of Jacksonville, Dawkins relishes the opportunity to engage businesses and the community with the College of Business, increase enrollment, and expose high school students, especially underrepresented students, to business career tracks. He also looks forward to spending more time with his 80-year-old mother and his one brother and family, who all live in the city. While now based in Jacksonville, he will travel regularly to Atlanta, where his wife is the Director of the Equal Opportunity Office at the University of Georgia and where she, her 85-year-old mother and their daughter and grandchildren reside.

“We didn’t succeed on our own, so I have the same obligation to reach back and help others earn their degrees and further diversify their fields and also have the kinds of opportunities afforded to me.”

-- Dr. Mark Dawkins
Graduate Deans Help Prepare New Fellows For the Path to the Doctorate

At the 2015 New Fellows Orientation, the FEF inducted 54 newly selected five-year Fellows into the McKnight network and immersed them in the Program’s concentric support system through a series of workshops designed to explain best practices for earning the Ph.D. One of those sessions, the Graduate Deans’ Roundtable—an annual favorite—introduced the scholars to several deans from participating universities, all of whom offered invaluable advice on the most effective strategies for navigating the graduate school environment.

The panel, chaired by Dr. Koren Bedeau, UM’s Associate Dean of the Graduate School, included Dr. Peter Harries, Assistant Dean of Graduate Studies at USF; Dr. Tyisha Hathorn, Assistant Dean of UF’s Graduate School; Dr. Sonja Montas-Hunter, FIU’s Associate Graduate School Dean; and Dr. Verian Thomas, Interim Dean of the School of Graduate Studies at FAMU. The group shared a wealth of diverse experience and insight with the Fellows.

Their goal: to ensure that this year’s class keeps pace with the greater cadre of McKnights, who graduate with their Ph.D.’s faster and at higher rates than their peers around the country.

This new class of students, while similar to former McKnight classes in diverse disciplines and selected schools, is unique in that 19 or over 35% were slated to begin their doctoral programs without having first earned master’s degrees. As such, the Deans spent a considerable amount of time explaining the differences between doctoral and bachelor-level study.

They emphasized that, while students finishing master’s programs generally have gained appreciable exposure to graduate-level research, students completing bachelor’s usually have not and thus advised students to renounce the “course to degree” mentality pervasive in undergraduate programs. They noted that earning A’s and B’s in doctoral courses, although expected, is merely a baseline requirement for earning the Ph.D., which, beyond coursework, requires students to conduct and report on specialized research in a narrow field with the end goal of becoming “experts.” Thus, they clarified the Fellows’ charge as doctoral candidates to synthesize theory and research data into their dissertations and create “new knowledge,” in contrast to simply consuming and repeating information, as often accepted in undergrad.

The Deans also described the important and far-reaching role of the graduate school on most campuses as an advocate for students and the central administrative unit that collaborates with college deans and faculty, houses graduate level programs, and manages and enforces graduate school policies. The panel thus urged students not only to become familiar with the graduate student “handbook,” which contains all written policies, but also, to the extent possible, make the graduate school offices their home at the universities, second only to their departments. Indeed, several panelists noted that developing cordial relationships with and “being on the radar” of the staff at the graduate school can prove fruitful for obtaining assistantships, travel awards, and even grant funding. As one speaker stated, “if they do not know you, they will not think of you when opportunities arise.”

Finally, the presenters challenged the Fellows to understand their role and place relative to the more seasoned and accomplished scholars in their departments and act accordingly. This means humbling themselves as apprentices and mentees learning to become scholars and mentors, accepting guidance from advisors graciously, thinking before responding to unfavorable critiques, and, if disagreeing at all, doing so tactfully and respectfully.

Per usual, in evaluations of the panel discussion, most Fellows ranked the session as very effective and applauded the panel for providing “different perspectives and honest feedback from five distinguished faculty members with real experience,” “descriptions of the resources available and the roles of the different people involved in graduate student endeavors,” “good explanations of the dynamics of faculty interactions,” and overall “great insight and advice.”

McKnight Doctoral Fellowship Class of 2015-2016

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<th>Discipline Breakdown</th>
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Fellow Profile: Michael Cross

With characteristic modesty, USF McKnight Fellow Michael C. Cross, a doctoral candidate in applied physics, calls himself a “technologist,” involved in “building tools for building tissue.” Before he was a Ph.D. student, Cross spent nine years in the financial services industry, earning praise not only for his skills as a web designer and team and project leader, but also for his “laser focus,” creativity, innovation, and problem-solving acumen. As one manager said, “his ability to see around corners makes his contributions invaluable.”

When he worked in finance, Cross visualized returning to school for science, applying his new-found expertise to technology, and contributing to society. After beginning his doctoral program, his tool of choice would become microscopy with an emphasis on physics, enabling Cross to design implements for analyzing how cells interact with biomaterials. In pursuit of his goal, Cross developed a “peripheral awareness” of others’ research. A short list of the skills he has developed in service to science includes confocal laser scanning microscopy, biomaterial engineering, atomic force microscopy, scanning electron microscopy, and tissue engineering.

His approach to science is reflected in his doctoral committee—which includes a chemist, mechanical engineer, and physicist—and in the hybrid of industry and academia that produces commercial applications from scientific inquiry. “I cannot just be in a lab” for the sake of pure knowledge, he offers.

Now, in the fifth year of his doctoral studies, Cross shares credits for 12 publications and attributes this record to different labs “using me for my expertise in microscopy.” Questioned about his collaborative approach, Cross conceded he is fairly unique, but added, “one or two of us are in every department; we find each other.”

Cross is eager to begin using technology for tissue engineering. He may be close to learning whether he and his collaborators can start; they are almost half-way through a seven-week NSF funded I Core Project, the goals of which are two-fold—commercialization and teaching entrepreneurship. The project outcome will determine whether the team pursues investors or returns to the drawing board.

Either way, the future looks bright for Cross, who, as the son of a military man, came from “all over.” Cross is married and became a father just eight months ago. As an undergraduate, he attended the University of Texas at San Antonio.
FEF Launches CodeMasters After School Program in Miami-Dade High Need Schools

Given that the U.S. Bureau of Labor Statistics expects employment in computer occupations to increase by 22 percent through 2020, the FEF has steered a substantial portion of our pre-college programming toward ensuring our students have the opportunity to prepare to compete for those and other STEM-related jobs.

In 2001, we initiated our annual statewide mathematics competitions and, since 2002, have offered applied STEM summer camps at middle and high schools throughout Florida. In the camps, students explore STEM in action, focusing on the concepts and application of math and science in the exciting fields of aerospace technology, engineering, marine biology, robotics, finance and investing and more. The programs aim to expose students to various potential STEM careers and ready them for the rigorous study required to pursue jobs and advanced degrees in those fields.

In 2015-2016, we have expanded these efforts to the after-school classroom at schools in high need areas. Supported by funding from The Children’s Trust and the Opa-locka Community Development Corporation and by volunteer service from McKnight Fellows, the FEF has introduced CodeMasters, a multifaceted program for students in grades 6 through 12. At CodeMasters, students learn how to code, while also receiving academic support, life skills training and help with postsecondary education and career planning.

Each afternoon, CodeMasters students at Carrie P. Meek/Westview K-8 Center, North Dade Middle School, Carol City High School and Central High School in Miami-Dade begin their afternoons with a nutritious snack before completing homework and receiving virtual tutoring as needed from volunteer McKnight Doctoral Fellows.

After studying, they learn and practice essential life skills, such as anger management and decision making, and begin planning for postsecondary education and careers.

And then, finally, in the longest session of the afternoon, students design, create, and invent through computer programming. Middle schoolers began this fall creating video games using the code.org CS in Algebra curriculum, where they are learning the basics of loops, conditionals and other concepts of computational thinking. High school students, tooling up to begin creating web apps, which many think will replace native apps, are learning either HTML5 and CSS or JavaScript.

At Carol City High, McKnight Fellow John Gibson, in his second year in Computer Science at FIU, is teaching the HTML/CSS class mostly online as part of a pilot effort to allow students to interact daily with a role model who actually has coded before.

Other Fellow-role models have supported the program as well: UF Psychology Fellow Larry Burrell and UM STEM Education Fellow Edwing Medina visited the various program sites virtually and/or live to discuss Internet safety, and more than 40 other Fellows have volunteered to tutor. With their help, by the end of the second and fourth quarters of the school year, students will have improved grades and be ready to showcase their programming projects at community events.

In the summer, the program will continue with intensive six-week camps where students will work to improve academic performance while immersing themselves in code. In the middle school camps, students will learn to build and program robots, and in the high school programs, they will focus on game design.
Since the Florida Education Fund initiated the Brain Bowl academic competitions in 1985, members of the first, second, and third place History teams have won 4-year scholarships donated by Florida colleges and universities for their State championship performances. In 2015, 36 students won those prizes for competing on the winning History and 11th-12th Grade Mathematics teams.

That’s after nine months of arduous practice and drilling. History teams spent that time reading and preparing to answer vocabulary-in-context, comprehension, and extended reasoning questions about high school and college-level literature and history books. Math competitors worked those months to increase speed and accuracy when solving SAT-type algebra 1 and 2, geometry and data analysis problems.

Scholarships for the placing teams were donated by Florida Atlantic University, Florida Gulf Coast University, Florida Institute of Technology, Florida International University, Florida State University, New College of Florida, Rollins College, Stetson University, University of Central Florida, University of North Florida, and University of South Florida. The awards will be available to the winners after they graduate from high school and enroll in their chosen universities.

Eight of the winners enrolled in college on the scholarships this fall. The others will use the awards within the next two to three years.

Achiever Destiny Ferguson Speaks at National Urban League Conference

“Trayvon Martin, Eric Garner, Mike Brown, Jordan Davis, the nine victims of the Charleston church shooting, Sandra Bland. Today I am a member of the National Achievers Society…a Society that recruits and supports the brightest of the bright in the State of Florida. But in 2024, I will be a civil rights attorney working in my community, because all lives matter!”

Those were the opening words of a speech by Destiny Shantia Ferguson, an Achiever from FEF’s Atlantic Coast Center of Excellence, as she introduced the president of the National Urban League at the League’s 2015 National Conference. Destiny delivered the speech as the only youth presenter at the Conference, held in Fort Lauderdale for the first time in July 2015.

She was chosen to introduce President Morial based on her performance at the 2014 NAS State Speech and Oratory Contest in Tampa, which inspired Broward County leaders to appeal to the National office to allot time on the program for a local youth speaker.

A junior at Plantation High School with a 4.0 GPA, Destiny has been a member of the National Achievers Society since 2012, where she now serves as Chapter Secretary. In the wake of recent news of multiple instances of brutality targeted at members of minority groups around the country, she has decided to pursue a legal career.
Captivating Speakers Motivate Participants at FEF’s 2015 Pre-College Summit

A television news reporter, a former Food Network “Chopped” competitor, a father-son financial planning duo, a McKnight Doctoral Fellow, and others presented to students and parents attending the FEF’s 2015 Pre-College Summit, each motivating the audience while imparting vital information and advice.

Chef Max Hardy, a former “Chopped” contestant and McKnight Achiever who has built a successful business as a highly sought caterer and personal chef, opened the meeting. He encouraged students to discover their passions and then, as he has done, research and pursue avenues that will allow them to make their passions their careers. Later, in group workshops, TV news reporter Tammie Fields from CBS News 10 in Tampa, taught 3rd through 5th graders how to write stories that fully incorporate answers to journalism’s 5W’s—who, what, when, where and why.

At the same time, USF Math Education McKnight Fellow Lakesia Dupree discussed Internet safety with 6th through 8th graders, showing them how to keep from revealing private information online and outlining how to report cyber predators and bullies.

Certified financial planning team Roy James, Jr., and Roy James, Sr., presented as well, to parents, explaining how to build personal wealth while helping fund their children’s education.

In addition to several more workshops and a college fair, other Summit highlights included the annual 9th through 12th Grade “Teen Summit,” during which students discussed issues selected by graduating officers of the National Achievers Society, and a first-time sweep of the Summit’s two Word Wizard Competitions and NAS Voices Speechwriting and Oratorical Contest by Achievers from the North Florida Center of Excellence.

Upcoming FEF Events

Feb. 26-27, 2016 MDF Mid-Year Research and Writing Conference, Tampa

March 18-19, 2016 31st Annual Brain Bowl Competitions and Florida National Achievers Society Pre-College Summit, Tampa
The FEF’s mission is to strengthen the larger community by creating and implementing programs and services that lead to greater educational advancement for historically underrepresented groups.