

Spring 2017

NSU Sharks Rx-Spring, 2017

College of Pharmacy

Follow this and additional works at: https://nsuworks.nova.edu/hpd_corx_magazine

 Part of the [Pharmacy and Pharmaceutical Sciences Commons](#)

NSUWorks Citation

College of Pharmacy, "NSU Sharks Rx-Spring, 2017" (2017). *NSU Sharks Rx*. 14.
https://nsuworks.nova.edu/hpd_corx_magazine/14

This Book is brought to you for free and open access by the College of Pharmacy at NSUWorks. It has been accepted for inclusion in NSU Sharks Rx by an authorized administrator of NSUWorks. For more information, please contact nsuworks@nova.edu.

SHARKS

SPRING 2017

NSU College of Pharmacy



Distinguished Alumnus

Armando Bardisa, Pharm.D. ('97)

SHARKS

Volume 3, Number 1

SharksRx is produced by
NOVA SOUTHEASTERN UNIVERSITY
College of Pharmacy
3200 South University Drive
Fort Lauderdale, Florida 33328-2018
pharmacy.nova.edu

NOVA SOUTHEASTERN UNIVERSITY
George L. Hanbury II, Ph.D.
President and Chief Executive Officer

HEALTH PROFESSIONS DIVISION
Frederick Lippman, R.Ph., Ed.D.
HPD Chancellor

COLLEGE OF PHARMACY
Lisa Deziel, Pharm.D., Ph.D.
Dean

EXECUTIVE EDITOR
Scott Colton, B.A., APR
*COM/HPD Director of Medical
Communications and Public Relations*

MANAGING EDITOR
Dawn E. DaCosta, M.A.
Director, Academic Support Services
dacostad@nova.edu

CONTRIBUTING WRITERS
Zina Abboud, M.S.
Aiman Rahman, M.S.

ART DIRECTOR
Randall McCafferty
Senior Graphic Designer
Office of Publications

OFFICE OF PUBLICATIONS
Ron Ryan, Director
Sheryl Koral, University Editor
Carol Reynolds-Srot, Associate Editor/Copywriter
Roberta Harris-McCafferty,
Graphic Production Manager

Nova Southeastern University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate's, baccalaureate, master's, educational specialist, doctorate, and professional degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Nova Southeastern University.

Nova Southeastern University admits students of any race, color, sex, age, nondisqualifying disability, religion or creed, sexual orientation, or national or ethnic origin to all the rights, privileges, programs, and activities generally accorded or made available to students at the school, and does not discriminate in administration of its educational policies, admissions policies, scholarship and loan programs, and athletic and other school-administered programs.
01-083-17RWM

FOLLOW NSU



Upcoming Events



May 6–7

Continuing Education—The 28th annual Contemporary Pharmacy Issues and alumni lunch/social at the NSU Fort Lauderdale/Davie Campus

June 3–7

American Association of Health-System Pharmacists annual meeting in Minneapolis, Minnesota

July 13–16

Florida Pharmacy Association annual meeting in Orlando, Florida

July 15–19

American Association of Colleges of Pharmacy annual meeting in Nashville, Tennessee

July 21–23

Continuing Education—Physical Assessment Institute in Patient Care Management and alumni lunch/social at the NSU Fort Lauderdale/Davie Campus

August 4–6

Florida Society of Health-System Pharmacists annual meeting in Orlando, Florida

August 19–20

Continuing Education—Initial Consultant Pharmacist License and alumni lunch/social at the NSU Fort Lauderdale/Davie Campus

November 4

College of Pharmacy Alumni Homecoming Reunion at the NSU Fort Lauderdale/Davie Campus

November 4–5

Continuing Education—Fall Classic and alumni lunch/social at the NSU Fort Lauderdale/Davie Campus

For more information about these events, visit pharmacy.nova.edu/ce. For information on Continuing Education events please contact Carsten Evans, Ph.D., executive director of Continuing Education and Professional Affairs, at carsten@nova.edu or (954) 262-1306.

Alumni Events: Contact Aiman Rahman, M.S., coordinator of Alumni Development and Professional Affairs, at copalumni@nova.edu or (954) 262-1380.



Table of Contents

MESSAGES

- 4 Dean's Message
- 5 Chancellor's Communiqué

FEATURES

- 6 Distinguished Alumnus Puts Abilities to Good Use
- 10 NSU COP Leading Way in New, Innovative Roles for Pharmacists
- 13 Pharmacy Students Dive into Innovative Projects
- 16 Student Pharmacist Pioneers Research
- 18 Groundbreaking Researchers Make a Difference
- 23 Aiming for the Million Dollar Club

DEPARTMENTS

- 24 College Pride
 - Master of Science in Pharmaceutical Sciences
 - College of Pharmacy Joins Erasmus Programme
 - Center for Drug Discovery and Development CD³
 - Travel Study Program Experiences Expansion
 - Realizing the Potential of Giving
 - Donor Profile
 - COP Scholarship Funds
 - Donors
 - Publications and Presentations
 - Promotions and New Faculty Members
- 32 Employee Milestones
- 35 Alumni Pride
 - Homecoming Reunion Honors Charter Class of 1987
 - Alumni Achievements
- 38 NSU Pride
 - Sea Turtle Conservation Program Hits New Milestone
 - Three Online Programs Earn National Ranking
 - NSU Earns Military Friendly School Designation

Message from the Dean



Twenty-eight years ago, I had the privilege of teaching the NSU College of Pharmacy's charter class, which was entering its third year. I have fond memories of those early days at Southeastern College of Pharmacy (SECOP). Last fall, we honored our founding Pink Flamingos at our annual alumni reunion. It was fun to welcome back our pioneers and share stories and photos from both their days at SECOP and their achievements.

The members of that intrepid charter class started us on an adventure that becomes more exciting and more successful with each year. Back then, I don't think any of us could have foreseen the tremendous growth and success of the college. A big "thank you" to everyone who attended the reunion. If you weren't able to make it, we hope to see you on November 4, 2017, for our annual Homecoming Reunion.

I started my tenure as the college's dean with the class of 2017. In what seems like the blink of an eye, the class is graduating, proving that time really does fly. This outstanding group of students, who will always be special to me, has contributed greatly to the NSU College of Pharmacy (COP). I have no doubt they will continue their success as they move to the next phase of their professional lives—residency, fellowship, career,

graduate program, or another exciting path.

The opportunities available to COP students are endless. Thanks to their curricular exposure to entrepreneurship and advocacy, I know they will shepherd our profession to new heights.

It's been an amazing year. The NSU Center for Collaborative Research is up and running, and several of our faculty members, their graduate students, and teams have moved their laboratories into the building. Our students, faculty and staff members, and alumni are all excelling with more achievements than I could list.

Throughout the past year, we've added several new pieces to the college, including two new master's degree programs. Our research efforts have expanded significantly with great success; our students are actively engaged in student organizations, research, and innovative activities; and our faculty members continue to amaze me with all they do for our students and the college. The innovative paths and successes of our alumni are impressive. In this issue of *SharksRx*, you will get a glimpse of the many wonderful accomplishments of the COP team.

Enjoy this overview of the college, and make sure we have your updated email address so we can forward both our eNewsletter and *SharksRx* magazine to you. We would love to hear from you; so, send your updates to copalummi@nova.edu.

Lisa M. Deziel, Pharm.D., Ph.D.
Dean, College of Pharmacy
Nova Southeastern University

Chancellor's Communiqué



Being involved with the Health Professions Division's Board of Governors and the NSU Board of Trustees meetings makes me quite aware that the community's involvement not only with its time, but with its treasure, is a major focus. What I'm referring to when I use the word "treasure" are matters related to endowed scholarships, the naming of academic units, and other financial gifts, which are so necessary to ensuring the university's continued growth and success.

At Nova Southeastern University—and at most private, not-for-profit educational institutions in the United States—additional emphasis is being placed on the value

of what we refer to as charitable giving, or what I describe as investment giving. When you invest in education, you are investing in the stability of our great country and in our ability to gain knowledge for the betterment of mankind.

As NSU president George L. Hanbury II, Ph.D., often states, "The seeds that you plant are the trees that will grow into the shade trees of the future." You may not be available to sit under one of these trees; but, there are many people who will sit under them for many years to come. I'm a firm believer in this philosophy.

Fortunately, there are many organizations and individuals affiliated with NSU who are planting these seeds and investing in the future of the university—and in the future of our society. From an altruistic standpoint, NSU investment giving is increasing. But, it doesn't just relate to people in the community who have become professionally or entrepreneurially successful who are giving of their treasure. Dedicated alumni and administrators, as well as faculty and staff members, are giving back financially to the university and supporting the projects and programs about which they are passionate.

Whether it's a monetary donation to help fund an endowed student scholarship, or through deferred gifts such as life insurance policies and planned estate giving, the internal and external NSU community has realized that an investment in education is a sensible way to leave a positive and indelible imprint on society.

Frederick Lippman, R.Ph., Ed.D.
Chancellor, Health Professions Division

Distinguished Alumnus Puts Entrepreneurial Abilities to Good Use

By Lona O'Connor

Most men just starting a family would not walk away from a steady job and start a new business. But most men are not Armando Bardisa, Pharm.D. ('97)—a 2016 NSU Distinguished Alumnus of the Year and a member of the college's Dean's Advisory Board.

"I worked for Walgreens for 10 years as a pharmacy manager and then said, 'I think I can do my own thing.' My daughter, Amanda, had just been born, but my wife said, go for it. I cashed out all my Walgreens stock and put everything into the business."

Starting in 2003, with only himself and a cashier as staff members, Bardisa built the highly successful, independent South Miami Pharmacy, now called SMP Pharmacy Solutions (SMP). These days, the big drugstore chains are watching his innovations, and venture capitalists are wooing him.

"At first, our goal was to be the best pharmacy in South Miami, then Miami. Now our goal is to be the best independent pharmacy in the country," he said. "There is definitely a place for the independent pharmacy. You can use your mind to decrease hospitalizations, increase compliance, make sure patients are taking the medicine, and counsel patients. We can handle the patient as a whole, no matter what his or her needs are."

SMP is one of the brightest stars in the business world, growing 136 percent in revenue from 2014 to 2015—filling more than 10,000 scripts a week. SMP is listed as the eighth most-successful, privately held business in the state. The company has been on *Inc.* magazine's list of 5,000 fastest-growing private companies for 8 consecutive years and won the prestigious J.D. Power & Associates' "highest in customer satisfaction" rating.

Additionally, Bardisa was a finalist in Ernst & Young's 2016 Entrepreneur of the Year awards competition for his "excellence and extraordinary success in innovation, financial performance, and personal commitment to businesses and communities." SMP was also featured as one of the 2016 Best Places to Work.

Besides its retail store, SMP Pharmacy Solutions runs a compounding lab providing specialty medicines for fertility and chronic diseases. A personal interest in antiaging and healthy living led to a certification for Bardisa from the American Academy of Anti-Aging



Armando Bardisa, center, is shown with his pharmacy team—from left, Elizabeth Hernandez, Pharm.D. ('05); Jenny Alfonso, Pharm.D. ('05); Richard Mayan, Pharm.D. ('08); and Eddy Lopez, Pharm.D. ('03).

Medicine. "I'm very passionate about preventive medicine and nutrition to support optimal health," Bardisa said.

Added to his list of business awards is the 2016 Bowl of Hygeia Award from the Florida Pharmacy Association for civic leadership. "I'm so proud of that one," he said. "It really means to me that I've been recognized for giving back to the community."

Bardisa was part of a team of 75 medical professionals who volunteered in the Dominican Republic to treat more than 1,500 farmworkers in 3 days. He and his employees also raised thousands of dollars for St. Jude and other charities. SMP also works with foundations to ensure HIV patients can pay for their medications.

"At first, our goal was to be the best pharmacy in South Miami, then Miami. Now our goal is to be the best independent pharmacy in the country."

—Armando Bardisa

(continued on next page)

(continued from previous page)



The walls of Bardisa's small office, plastered with awards and annual company goals, show his hard-driving ambition to succeed.

"It's absolutely like a family," said Magaly Baro, a customer who became an SMP client 10 years ago on a friend's recommendation. "It doesn't matter who I talk to; they know what I need."

Baro has fibromyalgia and has had two spinal-fusion surgeries, so she can't drive and needs several medications delivered to her home. "They help me as much as they can," Baro said. "The young lady got me my meds two days before Hurricane Matthew last October. They're not a little pharmacy any more, but they still go out of their way to make sure things are taken care of."

The cheerful "We deliver" sign on SMP's original building has developed into a sophisticated computerized delivery system. Besides a squad of phone reps, an SMP pharmacist is available 24/7 to take calls from customers about all aspects of drug treatment.

Marco Salgado, SMP's retail sales accounting manager, has been refining SMP's prescription delivery list, which assures that 600 delivery customers, such as Baro, get their prescriptions precisely when they need them—or before. It also benefits doctors, who are rated more highly by the federal government when patients with chronic illness are taking meds regularly and maintaining their health.

"It's made our business much more efficient," Salgado said. "We calculated what we were wasting on gas, we reformat- ted delivery schedules, and cut costs by two-thirds. That's definitely one of the things I love about Armando. He doesn't identify with what the other people are doing, but with what they are NOT doing. That takes a special kind of mind."

Salgado has known Bardisa since 1997 and worked with him since 1999. "One of the things I learned with Armando is that when everybody else is going from 1 to 10, he's already figuring out how to go to 20," Salgado said. "He always finds a way. When you train yourself to think that

way, the obstacles start to break down. Then you start to think that way personally, instill it into your family, and see the benefits."

"He believes that if you hire slow and fire fast, then you have an employee for a lifetime," Salgado said. "I'm almost at 10 years, and I feel I'm growing with the pharmacy."

Employees need to feel they can trust the business owner, Salgado said. "When I started working with Armando in 1997, there was a lot of fraud," she said. "But Armando always plays by the rules. He said, 'I will never do anything to jeopardize you guys.'"

Several of Bardisa's key employees are NSU pharmacy graduates, and they, in turn, are mentoring current NSU pharmacy students. "I am honored to have Dr. Bardisa serve on the COP Dean's Advisory Board," said Lisa M. Deziel, Pharm.D., Ph.D., COP dean. "He is inspirational and has provided me with very useful advice. His vision has helped guide the college's growth, providing innovative opportunities for both faculty members and students."

The walls of Bardisa's small office, plastered with awards and annual company goals, show his hard-driving ambition to succeed. But the corner closest to his desk is personal, with snapshots of family adventures all over the world, most notably a photo of Bardisa and several others wearing the unmistakable red neckerchiefs of those who run with the bulls in Pamplona, Spain.

"I'm very big on having a full life, and that was one of the scariest moments of my life. Nothing prepares you for how big these animals are," he said. "There's no way you're ever going to outrun them. At the end of the plaza, you're hugging strangers. You're alive!"

With his wife Roselind, a family physician, Bardisa has run marathons. Now, he has started running triathlons for charity with the SMP running team, which has grown



Roselind and Armando Bardisa's adventures included a run with the bulls in Spain.

each year. "The first year, there were only a couple of us. I had to convince everybody to join me," he said. "Now, we have 15 to 20 people on our team for the South Beach Triathlon."

With so much recognition for his business and community service, 2016 was a big year for SMP and Bardisa. He is keeping an eye on the future, however, mulling over launching several health care businesses. He has a computer file with dozens of communications from venture capitalists eager to work with him.

But, that's down the road. Right now, he's enjoying his success, working for charities, and being a coach for his three daughters' sports and activities. "If somebody comes with the right offer, I'd certainly consider it," he said with a smile. "But right now, I love coming to work." 🍷

COP Leading the Way in New, Innovative Roles for Pharmacists

By Ellen Wolfson Valladares

Every day, bewildered patients meet with busy, overbooked physicians and leave the offices unsure of the directives and medications they've been given. But, what if, before they even walked out the door, the patient could sit down with a pharmacist in that office, review the doctor's instructions, and get his or her questions answered?

What if, after the patients go home, a pharmacist was able to follow up by phone and make sure they were taking their medications correctly and making proper lifestyle adjustments?

What if pharmacists could meet with groups of patients and educate them about the medical devices they're using, or about proper nutrition and other preventive care tips?

What if the pharmacist consulted with the physician about every aspect of a patient's medication and wellness?

At NSU's College of Pharmacy (COP), they're not asking "**What if?**" anymore. They are doing it. Shattering the old stereotypes of pharmacists bound to drugstore and hospital jobs, faculty members and students are forging new ground and creating new opportunities by working directly with patients in physicians' offices. It's all part of initiatives put forth by faculty members who recognize an opening for growth and innovation amid new health care laws.

"This is a great opportunity, which pharmacists have never had in the past, to affect care in physicians' offices and help improve medication-related areas, while allowing the physician, physician assistant, and nurse practitioner to focus on other areas," said Matthew Seamon, Pharm.D., J.D., associate professor and chair of pharmacy practice.

ACORN SEED

IT ALL STARTED with the planting of a seed. In April 2015, a group of COP faculty members came together to form ACORN SEED (Accountable Care Organization Research Network, Services, and Education), hoping to integrate NSU's pharmacy program into the ACO network. An ACO is a group of health care providers, including physicians, mental health workers, social workers, pharmacists, medical assistants, and paramedics, who work together to provide interdisciplinary care to patients. They do this particularly with Medicare and chronic-care patients, with a focus on patient care and outcome-based payments.

It wasn't long before the ACORN SEED sprouted, an ACO was spun off, and the initiative blossomed. The faculty members, and some students, are assisting in physicians' offices, consulting with patients and the physician about medication management, and educating patients through group classes and individualized care plans.

"It's an exciting new role," said Renee Jones, Pharm.D., director of pharmacy partnerships and innovations. "Rather than filling prescriptions and dispensing medications, the pharmacist is part of the health care team, making decisions and interacting with the patients."

It's a cutting-edge advancement not only for pharmacists, but also for NSU, Jones added. "It's unusual to have pharmacists in physicians' offices period, much less in a university setting," she said. "It's very unique."

The pharmacists fill important needs, including assisting physicians with medication regimen decisions, meeting with patients to make sure they are filling their prescriptions and taking their medications properly, addressing lifestyle issues, helping them understand devices they are using, and offering nutritional advice. The pharmacists are holding patient education classes as well on everything from how to use an inhaler to healthy cooking classes.



COP faculty members proudly pose with the ACORN SEED logo.

"Rather than filling prescriptions and disbursing medications, the pharmacist is part of the health care team, making decisions and interacting with the patients."

—Renee Jones, Pharm.D.
Director of Pharmacy Partnerships and Innovations

(continued on next page)

(continued from previous page)

With competition growing for traditional pharmacist jobs, Jones said the goal is to start training and preparing NSU students for this new kind of pharmacy care. “Our pharmacy interns will be able to train directly under the physicians in a value-based model of the future,” she said. “It’s also a step toward preparing them for when national provider status gets approved and the Florida scope of pharmacy practice is expanded.”

ACORN SEED is growing quickly. “The physicians are ecstatic with what we’re doing. Now we already need more pharmacists,” Jones said.

This year, the college will be offering a two-year Accountable Care Fellowship, with an emphasis on quality improvement, and two second-year postgraduate ambulatory care residencies, which will work closely with ACORN SEED faculty members. To learn more about the program, visit NSU ACORN SEED at pharmacy.nova.edu/acornseed. 📄

MTM Center Makes a Difference

As part of the ACORN SEED project, College of Pharmacy alumna Yesenia Prados, Pharm.D. ('14), clinical pharmacist, is heading the Medication Therapy Management (MTM) component and has overseen the creation of the Adherence, Transitions of Care, and Medication Therapy Management (ATM) Center at NSU. Students are making the calls, reaching out to patients from several ACO groups, offering help and counseling patients on medications, devices, and a variety of other health-related issues to help physicians meet their important drug-related quality measures.

“The students are experiencing firsthand, real-life situations while being guided by faculty members to make sure they don’t miss anything,” Prados said. “That is going to help them so much once they are in the work field on their own. We are giving them the ability to excel once they graduate.”

It also expands the students’ opportunities to make money in their careers, since MTM is the only service pharmacists can currently bill for under the Centers for Medicare & Medicaid Services. “It is making a difference for students, physicians, and patients” Prados said.

In one recent example, a student spoke to a patient who was confused about his insulin prescription and was not



Yesenia Prados (center) proudly shares MTM information with students and visitors.

taking it properly. The student was able to reach out to the physician, clear up the confusion, and make sure the patient’s prescription, and his use of it, was corrected.

According to Prados, the ATM Center, which is already making close to 100 calls a day and yielding up to 7 daily student-patient contacts, has exceeded the physicians’ and the NSU team’s expectations. “The fact is we are in shock at where we are in such a short time. We have a lot to offer and so much more to grow,” she said. 📄

Pharmacy Students Dive into Innovative Projects

By Ellen Wolfson Valladares

Pharmacy student Mohaddisa Suchedina and her four copresenters had seen the show *Shark Tank* and knew that the people pitching their products often offered the judges samples. So when it came time to present their invention, Pharmbox—a pharmaceutical subscription service—they brought their prototype and handed out samples of items in the box to each judge in the College of Pharmacy’s own version of the show.

It was a move that would have made Mr. Wonderful—*Shark Tank* cast member and investor Kevin O’Leary—proud. And it was a hit with the judges and audience members who were there that day for this year’s new format for the Pharmacy Practice Seminar. “It was very interactive, and the judges were impressed by that,” Suchedina said.

She and her teammates were one of 45 teams of students from the Fort Lauderdale/Davie, Palm Beach, and Puerto Rico campuses who participated in the seminar, presenting their innovative ideas for products, services, and computer apps that could potentially impact the pharmaceutical industry. Suchedina and her team took home the prizes on the Fort Lauderdale/Davie Campus for Best Presentation in their room and Best Poster.

Transforming the annual seminar into a *Shark Tank*-style event was the brainchild of Jaime Riskin, Pharm.D., clinical assistant professor, and

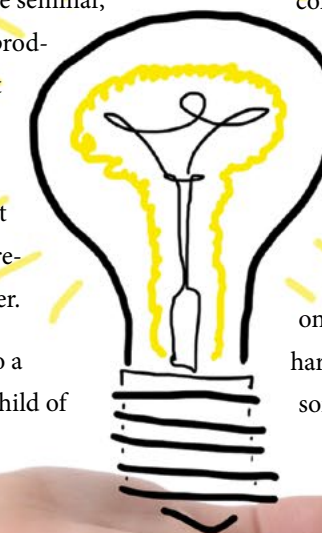
Matthew Seamon, Pharm.D., J.D., associate professor and chair of pharmacy practice. In past years, faculty members assigned topics to student groups, who would research the topic, work with a faculty member who was knowledgeable in the area, and create a poster and presentation on the topic.

“Last year, Dr. Seamon came to my office and had this idea that rather than us assigning the topics, we could put it on the students to come up with an idea, rather than the typical platform presentation,” Riskin said. She loved the idea and the fact that it aligned perfectly with the college’s vision for creating innovators, as well as the goals of Lisa M. Deziel, Pharm.D., Ph.D., COP dean, to give students more skills in innovation, entrepreneurship, and critical thinking.

“Pharmacy is changing dramatically, and education is changing as well,” Seamon said. “We had a chance to modernize one part of the curriculum that already existed and give students the chance to develop the skills and confidence they’ll need in the competitive marketplace.”

As Seamon and Riskin began to develop the new syllabus, they realized their original plan of having the students come up with a business plan was a little far-reaching for a one-semester course.

They also realized that the students needed assistance to begin coming up with ideas. So they focused on the creation and presentation of an original idea. “The hardest part about this was figuring out ‘How do I invent something?’ We had to come from a framework of teaching how to come up with an idea,” Riskin said.



(continued on next page)



Jaime Riskin and Matthew Seamon

Students also came up with ideas for new pharmaceutical services, such as having pharmacists assist veterans at risk of suicide, and computer apps, such as “MyOTC,” to assist in choosing the proper over-the-counter medications.

Riskin and Seamon said they were “blown away” by all of the inventions and how the seminar took on a life of its own, especially after there was some initial resistance from the students. “Our students presented absolutely brilliant ideas,” Deziel noted. “Along with superb posters, a number of the groups built mockups and prototypes, both by hand and with the 3-D printer, or designed blueprints for their products. The most exciting part for me was that our students advocated for their ideas with such great passion. It created palpable energy and excitement felt throughout the day.”

“At the beginning, the students didn’t like the idea very much,” Riskin said. “I don’t blame them; it was intimidating. As they went through the process, they realized it was pretty neat, and you could see they had this internal drive motivating them vs. when they are working on some idea that someone else gave them.”

Once the students had their ideas, they were assigned a faculty member. The difference this year was that the faculty member was not an expert on the topic, but more of a sounding board and mentor. The faculty members helped the students conduct literature searches, find data, and, in many cases, were learning along the way with the students.

Among the mentors was Shirin Madzhidova, Pharm.D., clinical assistant professor at the Palm Beach Campus. She worked with a group of five students who came up with “Vitalitrack,”—a wearable device that would use noninvasive technology to monitor blood glucose in diabetic patients. One of the students even created a fully functioning website to accompany the group’s creation.

Believe it or not, Riskin found inspiration from her third-grade daughter’s “Invention Convention” project, in which she was given a series of questions to ask to discover where there might be a need for an invention. From there, Riskin created a course that included lectures from business school faculty members, TED Talks, and other literature that gave methods for coming up with ideas. The students then spoke to pharmacists, patients, and physicians, asking questions and discovering needs in the market they could possibly fill.

The results were astounding and beyond anything Riskin or Seamon expected. Among the projects were creations such as the “Pharmadrone” to deliver medications, the “Medbit Wristband,”—a Fitbit-like device that serves as a noninvasive medical monitoring device—and the “Sani-Sign,”—a new, sanitary method for signing for prescriptions that utilizes a disposable stylus for each customer.



Class of 2017 students show their Shark Pride at Pharmacy Seminar Night. Pictured from left are students from the Fort Lauderdale/Davie, Puerto Rico, and Palm Beach campuses.

The group won Best Poster on the Palm Beach Campus, but even Madzhidova said she was surprised that the students’ involvement with their project didn’t end with the seminar presentation. They further developed their poster and presented it at national meetings of the American College of Clinical Pharmacy and the American Society of Health Systems Pharmacists (ASHP) and submitted an article to Pharmacy Times.

“They wanted to get the full experience,” Madzhidova said. “Even though the technology they are presenting is still some years away, they wanted to share all the background knowledge they gained that could have an impact on pharmacy and give hope to diabetic patients.”

Patricia Faría (‘17), from the Puerto Rico Regional Campus, presented her group’s work at the State of Florida Healthcare Innovation Pitch Competition at the University of South Florida in Tampa. Their innovation was selected as a top-15 finalist, and the judges commended Faría for her presentation and an interested investor approached her. In addition, 12 of the groups presented their seminar projects at the ASHP Midyear Clinical Meeting and Exhibition in Las Vegas, Nevada, last December, with the potential to be viewed by more than 20,000 pharmacy professionals from around the globe.

Seamon said he was also surprised at how far the students were willing to go with their ideas. “Something that came up that was totally unexpected is that students were looking into getting patents for their inventions, so we had to do some fast learning on the topic to help them,” he said.

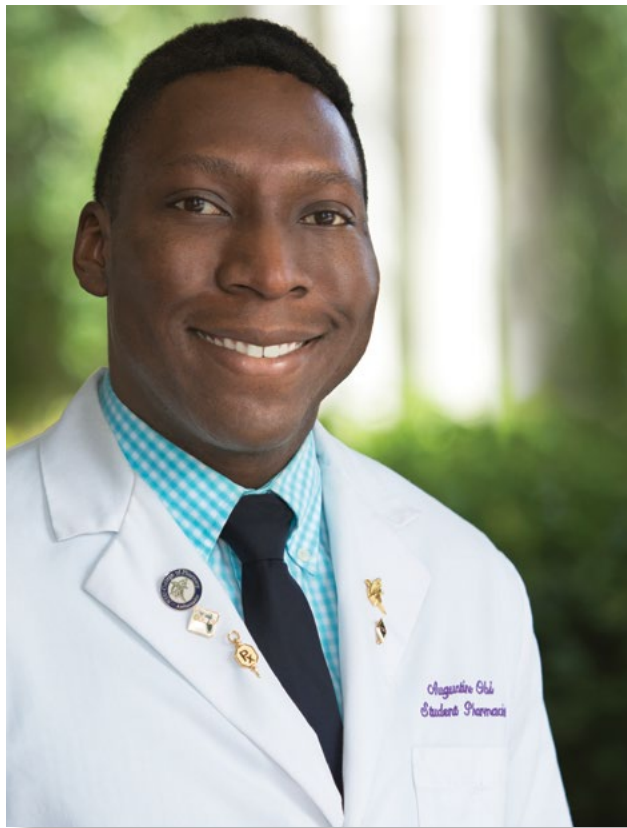
“I had hoped that in 10 years or so, maybe someone would get a patent. But we already have two or three groups that have applied for provisional patents. They all thought like business people and entrepreneurs, and a little less like pharmacists, which is where they need to be to be innovators in the field.”

Capping off their projects, student groups presented their innovative ideas to a panel of judges and audience members. The panels—which were set up in multiple rooms—included business people, lawyers, entrepreneurs, and a variety of other professionals.

According to Riskin, having the students present to people outside of the pharmacy industry provided another unintended benefit. “Many of the questions the judges asked had nothing to do with business. They wanted to know why a pharmacist would need to do these things. So the students ended up educating them about the value of a pharmacist, and they loved that,” she said.

The idea was so successful that Riskin and Seamon say they are planning to keep molding and growing the concept. They hope to work with the business school to create an interprofessional, yearlong course that will also focus more on the business and financial aspects.

“I even started to think differently as a part of this whole process,” Riskin said. “The students are learning that wherever you end up, you can bring in new ideas and potentially make a huge impact.” 🍷



STUDENT PHARMACIST PIONEERS RESEARCH

By Anika Reed

Obi's list of achievements and roles include serving as president of NSU's AMCP chapter, working at CVS Pharmacy, interning with Apotex Corporation, and being the media chair for NSU's chapter of the Florida Society of Health-System Pharmacists. As if his career-driven achievements aren't impressive enough, Obi's academic endeavors are certainly notable. Obi serves as a COP peer mentor, is a member of Kappa Psi Pharmaceutical Fraternity, Inc., received a Walgreens diversity scholarship, is a COP's Dean's Ambassador, and is on the dean's list.

His current academic and extracurricular involvement stems in part from his family. As a first-generation American, and the youngest of five siblings born to Nigerian parents, Obi said he and his siblings always understood that education was a priority in their household. "We were all born here, but my parents struggled to come to the United States. When they finally did, they did not take it for granted for one second," he said. "It was always God, family, and education as the three pillars of my family."

Obi, who graduated with his bachelor's degree in biology from the University of Florida, knew that he wanted to pursue pharmacy after attaining his undergraduate degree. "I've always been drawn to the fact that something so small and compact can be the difference between life and death, and you have the potential to affect people's lives around you," he said.

Joining the AMCP, and soon becoming president, helped him focus his attention on the pharmaceutical industry as his niche. As president of the AMCP's NSU chapter, Obi has worked to encourage the publication of research for the chapter's members and has brought in speakers who are innovating in their areas of pharmacy. "He's provided us opportunities we wouldn't be able to get anywhere else," said fellow third-year student Brittney Champagne.

During Obi's tenure as AMCP president, he has worked to spark change in having pharmacists play a larger role in health care and with government regulations. "A goal of the AMCP is to ensure that pharmacists have roles embedded in the health care system," said Renee Jones, Pharm.D., faculty adviser for NSU's AMCP chapter. "His initiative and forward-line thinking makes him the perfect candidate for this kind of position."

Continuing to undertake innovative research and starting to get papers published is just part of the mission of the Obi-led AMCP chapter. By taking on the challenge of connecting various parts of the health care system—from doctors and nurses to accountable care organizations, and pharmaceutical companies and community organizations to state and federal government—Obi wants to hone in on a shared vision of helping people in need.

Obi's goals in pharmacy aren't limited to local or state levels, however, but extend to pioneering change on a global scale. "I want to affect people's lives on a macro scale," he said. "I have a sense of gratification when I can help someone out, but having the opportunity to help millions of people's lives by creating a product or being part of a team that can affect millions or billions of lives in a positive way is my goal." 🙌



International Student Wins Prestigious TYLENOL® Future Care Scholarship

Advanced standing student **Leroy Koh** ('17) was one of 40 students from around the country to receive a \$10,000 TYLENOL® Future Care Scholarship in 2016. Koh is an international student from Singapore and will graduate with high honors this year. Each student displayed academic excellence, exemplary leadership, community involvement, and dedication to a career of caring for others. Koh thinks pharmacists have a huge role to play in health care, especially in ambulatory care, and thinks this "can be a niche for us in the future." Last year, class of 2017 student Nour Samra was the recipient.



Fourth-Year Student Receives Florida Pharmacy Association (FPA) Terry Gubbins Student Leadership Award

Farima Raof ('17) was honored during the 2017 Legislative Days and Health Fair Event in Tallahassee with the 2017 FPA Terry Gubbins Student Leadership Scholarship. Raof has shown dedication and commitment to the profession by providing leadership in school and community activities. Raof has held numerous leadership positions and memberships in student organizations, including immediate past president of the APhA-ASP NSU Chapter; current member of the President's 64—an elite body of student leaders; and current chair of the Florida Pharmacy Association's Student Affairs Council.

With a grant to present pharmacy research and approval to publish findings in a journal under his belt, third-year Pharm.D. student **Augustine Obi** doesn't show any signs of slowing down.

Obi is all about innovation in his field, and his NSU track record is evidence of his future in pharmacy. Obi received an NSU PanSGA grant to present his research on managed care pharmacy at the Academy of Managed Care Pharmacy (AMCP) & Specialty Pharmacy Annual Meeting in San Francisco, California, last summer. Along with fellow Pharm.D. students and AMCP officers Leroy Koh ('17) and Jane Ai-Chen Ho ('17) and faculty adviser Leanne Lai, Ph.D., professor of sociobehavioral and administrative pharmacy, Obi participated in the research project, "Off-Label Prescribing for Children with Migraines in U.S. Ambulatory Care Settings," which was published in the *Journal of Managed Care Pharmacy* March 2017 issue.

Groundbreaking Researchers Make a Difference

By Arnie Rosenberg

Robust research, today and into the future, is becoming a key component in the continuing success of the College of Pharmacy.

“When you have opportunities for research, you attract better faculty members and higher-quality students. That brings up the level of everything you do,” said Lisa M. Deziel, Pharm.D., Ph.D., dean of the College of Pharmacy. “When you have strong students and excellent faculty members, you’re able to do so much more.”

According to Deziel, growing research into a core element of the college has a two-pronged benefit. It puts the college at the forefront of the profession, not only positioning NSU as a leader in new discoveries, but also bringing “an air of enthusiasm and excitement into the classroom.” Moreover, it satisfies students who want more than lectures straight from a textbook. “They want to hear things that are relevant,” Deziel explained. “They like to hear actual experiences about what researchers are doing in the lab.”

Helping make that happen is NSU’s new Center for Collaborative Research (CCR), which opened in September. The \$100-million, 215,000-square-foot facility is more than simply one of the largest and most advanced research facilities in Florida. It’s an environment where researchers from across campus explore ideas, sound out scientific theories, and brainstorm research concepts with their counterparts.

College of Pharmacy faculty members and their graduate students already are pursuing their research in the CCR. “The importance of research in the CCR in our case is to develop drugs to treat disease,” explained Peter Gannett, Ph.D., associate dean of research and graduate education. “While the burden of drug development has shifted most certainly to drug companies, what is still present in the academia environments is research to identify drug targets against which drugs will be developed. NSU is sort of a newcomer in the research area, but it has made much progress.”

When Gannett arrived at NSU two years ago, the College of Pharmacy was ranked 84th in the nation among about 130 pharmacy programs with regard to research funding. Last year, it rose to 64. The goal is to rank in the 40s by 2020, he said.

By growing its research activity, the college is following a growing trend. “It’s more critical to a full and well-rounded program,” said Kristin Block, Ph.D., associate director of research and graduate programs for the American Association of Colleges of Pharmacy. “Having that research allows you to better adapt to the changing times and our changing understanding of disease states and medications, treatments, and therapies.”

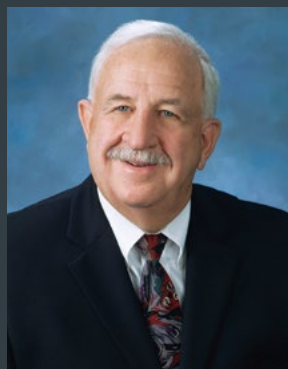
In the end, research is contributing more to the college than just scientific breakthroughs. “The skills you learn doing research—critical-thinking skills, analytical skills—are abilities students can take with them and apply to other situations or jobs they’re in,” Deziel said. “While imperative for our Ph.D. students, our Pharm.D. students, who may not enter into a research position, take the problem-solving process with them, which will help with everything they do.”

(continued on next page)

Groundbreaking Researchers Make a Difference (cont.)

A number of College of Pharmacy faculty members are working in the state-of-the-art labs at the **Center for Collaborative Research**. The following is a look at their research.

Richard Deth, Ph.D. **Malav Trivedi, Ph.D.**



Richard Deth

Deth and Trivedi are exploring how the environment, nutrition, and diet and exercise regulate genes in the body and how epigenetic changes turn genes off and on—a modification of the DNA called methylation.

Trivedi, assistant professor of pharmaceutical sciences, focuses on the epigenetics while Deth, professor of pharmaceutical sciences, examines metabolism, redox, and the methylation process. The redox/methylation hypothesis is the focal point of their work.

Both researchers are studying autism and the age-related diseases, among other conditions. “We found that the metabolic capacity of autistic children to have antioxidants in their body was shut down in an epigenetic manner,” Trivedi explained. “We have shown that in kids with autism—where genes are important in metabolism, social skills, or verbal skills—those genes are shut down, and that the shutdown of gene expression is done by epigenetic changes.”

Deth has found that children with autism have about one-third fewer antioxidants in their blood than other children. “When you have low levels of antioxidants like that, it inhibits some methylation,” he said. “We’ve made a connection here between this biochemical problem—oxidative stress—and metabolic problems common in autism. Oxidative stress leads to impaired DNA and interrupts development.”

In addition, Deth discovered that vitamin B12 is a key cofactor for methylation. By measuring the total B12 in the brain, he found that an individual’s vitamin B12 level normally decreases with age, especially over 40. He also discovered that vitamin B12 normally goes down more than tenfold in normal individuals; that autistic children had only about one third the B12 they should have had compared to their age-match group; and that middle-age, schizophrenic subjects had similarly lower B12 compared to the 35–45-year-old comparison group.

In studying conditions such as addiction, autism, and Alzheimer’s disease, Trivedi and Deth recommend nutrition supplement-based therapy to correct metabolic problems, such as oxidative stress and impaired methylation. “There are a lot of different conditions in which epigenetic changes make a contribution,” Trivedi said. “And, they can be treated based on nutritional and supplementation therapy.”



Malav Trivedi



Jean Latimer

Jean Latimer, Ph.D.

Latimer’s team is working on “turning down” DNA repair, killing cancer cells more easily with chemotherapy, and with a smaller, more targeted dose of it. “Being able to modulate or control the level of DNA repair, we think, will be a central way of making tumor cells vulnerable,” said Latimer, associate professor of pharmaceutical sciences and director of the NSU AutoNation Breast and Solid Tumor Cancer Research Institute.

Latimer’s lab examines tumors just a few days after being removed and discovered that when those tumors evolved into drug-resistant varieties, they have high DNA repair. “If we’re really effective in reostating that repair level down, and then we hit with the traditional chemotherapy, we should have a much higher kill rate,” she said.

Ph.D. candidate Homood As Sobeai found a biologic drug—micro RNA—that controls DNA repair. The proof? When the drug is put into stage 4 tumor cells, their repair capacity drops. The next question is whether or not chemotherapy is more effective in the presence of micro RNA. “The last part of this is how to bring it to humans,” Latimer said. “Delivery probably is through nanotechnology. You would put it into a microscopic nanoparticle that would go only into the tumor cells and ignore everything else.”

Appu Rathinavelu, Ph.D.



Appu Rathinavelu

As director of the NSU Rumbaugh-Goodwin Institute for Cancer Research since 2007, Rathinavelu, professor of pharmaceutical sciences and associate dean of institutional planning and development, and his research team are developing new therapeutics, specifically targeting oncogenic proteins. He has developed and patented two anticancer drugs—code-named JFD and F16—that already are in preclinical testing.

Rathinavelu’s team wants to eliminate typical drawbacks found in cancer drugs discovered from the 1970s and 1980s. “We want to develop therapeutics that are going to be safer and more specific for attacking cancer and not producing serious side effects,” he said.

In addition, Rathinavelu is collaborating with a researcher from Florida International University to study the use of phycocyanin, which is found in blue-green algae that is growing in Florida’s Everglades, to enhance the effects of existing chemotherapy agents. Using that combination, his team has been able to obtain the same therapeutic benefit, with less toxicity.

“In any kind of drug-discovery process, use of genomics and bioinformatics will be very important,” Rathinavelu said. “And we use those very effectively to determine what kind of cancer-causing genes and cancer-causing proteins are going to be good for targeting.”

(continued on next page)

Groundbreaking Researchers Make a Difference (cont.)

NSU Researcher Invents Alternative to EpiPen®

The debate over the expense associated with the EpiPen® may be coming to a halt thanks to **Mutasem Rawas-Qalaji**, B.S.Pharm., Ph.D., a pharmaceutical researcher and associate professor at the College of Pharmacy.

Popular Science featured Rawas-Qalaji's new oral method for patients to receive epinephrine. Generally, the benefits of the drug aren't seen when ingested, which is why most patients carry around the pen; however, Rawas-Qalaji developed a tablet that will allow the drug to work quickly and effectively.

The sublingual epinephrine tablet represents potentially game-changing technology. The next steps regarding this technology were recently outlined on CNBC's website at cnbc.com/2016/11/19/epi-pill-may-replace-epipen-for-allergies.html.

Studies have shown that the United States has one of the highest incidences of fatal anaphylaxis in the world. For anaphylaxis treatment in community settings, epinephrine intramuscular injection using an auto-injector such as EpiPen® in the thigh is universally recommended. Despite this, many people at risk of anaphylaxis in community settings do not carry their prescribed auto-injectors consistently and hesitate to use them when anaphylaxis occurs.

Rawas-Qalaji, along with his research team, developed a novel sublingual tablet that disintegrates and releases the medicinal ingredient epinephrine under the patient's tongue within 30 seconds. These rapidly



Mutasem Rawas-Qalaji shows Epi-Pill tablets.

disintegrating sublingual epinephrine tablets are taste-masked to enhance the tablet's palatability and patients' acceptance. Recently, the NSU research team was able to significantly enhance the amount of drug that gets absorbed from the sublingual cavity into the blood through reducing the particles size of epinephrine using micro and nanotechnology. 🍷

Lofty Goal:
Aiming for the Million Dollar Club

By Arnie Rosenberg

Colleges of pharmacy across the United States are ranked by how much money they bring in. So, when George L. Hanbury II, Ph.D., NSU president and chief executive officer, set a goal of bringing in \$300 million in extramural funding by 2020, it did more than challenge the College of Pharmacy to raise a substantial amount each year in grant funding.

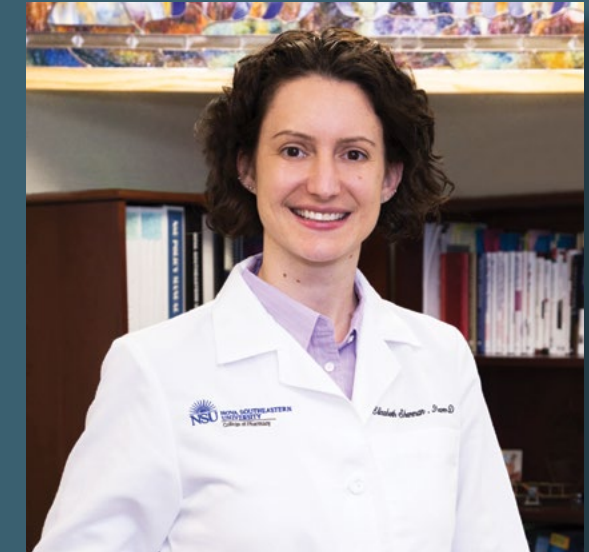
It also played to the college's own goal: Climb higher in the national rankings. "The goal is to move the college to be ranked in the 40s [among some 130 pharmacy programs] by the American Association of Colleges of Pharmacy [AACP]," said Peter Gannett, Ph.D., associate dean of research and graduate education. "And to do that is quite simple: Get \$1 million worth of grants every year."

Faculty members in fiscal year 2016 brought in about \$750,000 in outside funding—an increase of about \$500,000 in two years, Gannett said. Last year, the AACP ranked NSU No. 64 in external funding. Leaders of the college agree that the million-dollar goal is achievable. They also agree it won't happen without work. And with that recognition, the Million Dollar Club was born.

Launched in February 2016, it's an exclusive society in its own right. Bring in an external grant—from the National Institutes of Health, National Science Foundation, Department of Defense, American Heart Association, or any other funding organization unaffiliated with NSU—and you're in. As if the accomplishment itself isn't enough, you get a polo shirt emblazoned with the slogan Million Dollar Club.

"There's a need to celebrate when people do good things," said the college's dean, Lisa M. Deziel, Pharm.D., Ph.D. "It helps to have incentives, so the Million Dollar Club is an opportunity for us to applaud people's successes. If we do \$1 million a year, it helps us reach our goal."

Getting that polo shirt, however, is no easy task. According to Gannett, funding rates today are roughly 15 percent, meaning that to receive a grant, a researcher must write



Elizabeth Sherman is recognized as the first member of the Million Dollar Club.

seven applications. That figure has gradually declined over the years.

While that may seem a daunting statistic, it's not deterring College of Pharmacy faculty members from pursuing those grants. With a continuing \$134,180 grant from the U.S. Health Resources & Services Administration, Elizabeth Sherman, Pharm.D., AAHIVP, ('07) assistant professor of pharmacy practice, was the first to join the Million Dollar Club.

"External funding empowers faculty members to expand scientific and medical knowledge, enrich the education of our students, and spotlight the accomplishments of our growing research program," said Sherman, who is funded as a principal investigator of the Southeast AIDS Education and Training Center.

"Grants take a great deal of effort and a lot of time by the faculty, and we recognize that," Deziel said. "But they also bring opportunities, because they help buy equipment, provide personnel in the labs, and support our graduate students. Research funding helps increase our reputation and attract quality students and faculty members. Research creates pride in the institution and pride in the college." 🍷

College Pride

Master of Science in Pharmaceutical Sciences

IN THE FALL of 2017, the two-year Master of Science in Pharmaceutical Sciences program will admit its first students. It will provide opportunity for budding scientists to pursue study in one of three unique areas of emphasis:

- molecular medicine and pharmacogenomics
- drug development (pharmaceutics)
- social and administrative pharmacy

Degree completion will prepare students for positions in academia, managerial or sales positions in the pharmaceutical industry, contract research organizations, managed



care organizations, health care systems, and government agencies. Students will also be prepared for further study in a doctoral program, pharmacy, medicine, or a related discipline.

Application information is available at pharmacy.nova.edu.

College of Pharmacy Joins Erasmus Programme

THE COLLEGE is proud to be part of the Erasmus Programme collaboration between Comenius University in Bratislava and Nova Southeastern University. This European Union exchange student program started in the late 1980s and provides exchange options for faculty members and students to study abroad.

The program will fund students and doctoral candidates from both institutions to complete part of their coursework for three months. Faculty members from both institutions will also be offered teaching hours and scholarly activities for up to two weeks. The benefits for the participating organizations include an increased capacity to operate at an international level.

Center for Drug Discovery and Development CD³

Mutsem Rawas-Qalaji, B.S.Pharm., Ph.D., associate professor of pharmaceutical sciences, was named director of the newly launched CD³—a hybrid, virtual product development and contract research laboratory. This pilot project will eventually occupy space in NSU's Center for Collaborative Research connected to a cGMP facility for new drugs and cell therapies.

NSU needs a resource of this nature to fulfill NSU Vision 2020 goals in translational research. Services will include

consultation and molecule pre-formulation and formulation. Rawas-Qalaji and **Michele E. Pablos**, M.B.A., director of translational research and economic development, have been instrumental in the business planning and market research. Rawas-Qalaji will provide leadership and day-to-day management of the CD³. It is anticipated that projects will be collaborative and that there will be opportunities for all faculty members to participate.

Travel Study Program Experiences Expansion

TRAVEL STUDY PROGRAMS allow students to expand their knowledge in ways that cannot be achieved in a regular classroom. Students benefit from experiencing diverse cultures and engaging with professionals in similar and diverse areas, all while earning college credits.

In the summer of 2016, students traveled to Spain with **Elizabeth Shepherd**, Pharm.D., M.B.A., assistant dean, and **Georgina Silva-Suarez**, Ph.D., associate professor, to study with faculty members in Salamanca, Spain, and visit pharmaceutical sites in Salamanca, Madrid, and Granada. In addition to seeing the beautiful cultural sites Spain has to offer, students learned about new drug development and drug research in Spain and the European Union. They also visited community and hospital pharmacies to learn about pharmacy practice.

Additionally, six Pharm.D. students from the college participated in an interprofessional medical mission to Sumpango Sacatepéquez, Guatemala, from June 22–26 with Jose's Hands and the Emmaus Medical Mission. Pharmacy students worked with Guatemalan and American health care professionals to treat orphaned and malnourished children.

This year, the college will offer two travel study programs and continued service with Jose's Hands in Guatemala.

- **Travel Study Slovakia/Italy** will be led by **Ana María Castejón**, Ph.D., associate professor, with the attendees studying for two weeks in Bratislava, Slovakia, and two days in Milan, Italy. This is the third year students will travel to Slovakia and study with faculty members from Comenius University in Bratislava. The program will include visits to Vienna, Austria, Florence and Milan, Italy.
- **Travel Study/Mission Argentina** will be led by **Manuel Carvajal**, Ph.D., chair and professor, and **Yarelis Alvarado**, Pharm.D., assistant professor, as they study for 18 days in Santo Tomé, Argentina. The program will allow pharmacy students to expand their practical knowledge through interprofessional education and hands-on interaction with patients. Students will be immersed in the epidemiological profile of the region and learn about treatment and medication prescription for different pathologies. The program will end with a weekend trip to the beautiful Iguazu Falls.
- **Interprofessional mission/outreach trip, Sumpango Sacatepéquez, Guatemala.** Six students will have the opportunity to provide medical/patient care for underserved, orphaned, abandoned, and malnourished children in Guatemala.

To learn more, visit pharmacy.nova.edu/travel-study.



Guatemala trip, 2016

College Pride

Did you know?

NSU College of Pharmacy

1. has a **diverse faculty** and student body that ranks 1st for Hispanic and 14th for African American students earning the Pharm.D. degree
2. allows Pharm.D. students to pursue **concurrent master's-degree programs** in business administration, public health, or biomedical informatics
3. is the **only program in the United States** to operate a full-service community pharmacy and institutional pharmacy

Educating future pharmacists to help people live healthier, better lives.

Realizing the Potential of Giving

The College of Pharmacy (COP) depends on philanthropic contributions from alumni, friends, corporations, and foundations to ensure deserving students receive the highest-quality education, research opportunities, and experiential learning opportunities possible.

The college understands its responsibility to provide students with opportunities that encourage innovation in education, practice, and research, as well as personal and professional development. Help us provide the world-class education our students deserve. Your contributions help us hire world-renowned faculty, advance research, provide scholarships, and upgrade our labs with state-of-the-art equipment. An investment in the COP truly makes a difference in the education of our students.

Thank you in advance for your consideration of a deeper engagement with our college and students to help prepare the next generation of promising professionals and researchers. To learn how you can contribute to the College of Pharmacy, please contact Shannon Brown, HPD director of development, at (954) 529-6776 or sbrown2@nova.edu. 📧

DONOR PROFILE

Through their generous contributions of time and treasure, **Robert C. Speth**, Ph.D., professor of pharmaceutical sciences, and his wife, Janet, have established the Cardiovascular Neuroscience Research Fund.

“We have been extremely fortunate in our lives, and there were many people who helped us out along the way, including, most notably, my postdoctoral mentor, Henry I. [Hank] Yamamura, Ph.D., as well as our supervisor at BFI-Nashville, Dick Mehaffey,” Speth said. “Our streak of good luck got even better when we became part of the NSU family. Janet and I want to be able to pay forward the good fortune our lives and careers have afforded us.”

According to Speth, he and his wife “established the NSU Cardiovascular Neuroscience Research Fund to better understand how the brain controls blood pressure and heart function so that novel therapies can be developed to prevent cardiovascular disease, which continues to be the leading killer of Americans and a leading cause of strokes, heart attacks, and kidney disease,” he said. With the fund, Speth hopes that promising students will get hands-on research experience. “It is this type of experiential learning that prepares students for meaningful careers in the health sciences and health care, as well as expands our understanding of critical health issues,” he added.

With resources, Speth says the Cardiovascular Neuroscience Research Fund can continue generating novel discoveries related to complex brain and heart function while providing coveted research training for the next generation of scientists and health professionals.

Speth is the 2016 recipient of the prestigious Provost's Research and Scholarship Award from NSU and a Bronze Fellow member of NSU's Fellows Society, which recognizes individuals, corporations, and trusts who have made cumulative gifts of \$100,000–\$249,999.

For additional information about the Cardiovascular Neuroscience Research Fund, please contact Shannon Brown, HPD director of development, at (954) 529-6776 or by email at sbrown2@nova.edu. 📧



“Through the fund, promising students are afforded hands-on research experiences to which they wouldn't otherwise have access.”

—Robert C. Speth, Ph.D.

Professor of pharmaceutical sciences

College Pride

DONATIONS MADE TO THE COLLEGE OF PHARMACY PROMOTE STUDENT LIFE, SCHOLARSHIP, AND RESEARCH

College of Pharmacy Scholarship Funds

- Apotex Corp. Scholarship
- AZO Endowed Scholarship
- Broward County Pharmacy Association Scholarship
- Cardinal Health Scholarship
- Chancellor's Scholarship
- College of Pharmacy Scholarship
- CVS Caremark Charitable Trust, Inc. Scholarship
- CVS Hispanic Scholarship
- Foreman Endowed Scholarship
- Gil Pharmaceutical Endowed Scholarship Fund
- National Council for Prescription Drug Programs Foundation Scholarship
- Paul and Ellen Magalian Endowed Scholarship
- Publix Pharmacy Scholarship Endowment Fund
- Raj Mantena, R.Ph., Endowed Scholarship
- Richard and Hannah Stern Endowed Scholarship
- Sheila Tischenkel Pharmacy Endowed Scholarship
- Vernon Robinson, Sr. Changing Lives Memorial Scholarship
- Walgreens Diversity Scholarship
- Walgreens Nivia Santiago and Georgia Lehoczky Endowed Community Scholarship
- Walgreens Richard Ashworth Endowed Community Scholarship
- Walgreens Roy Ripak and Georgia Lehoczky Endowed Community Scholarship
- William D. Hardigan Endowment Scholarship

The college recognizes the following donors. (January 2016–January 2017)

\$100,000 and Above

A2 Milk Company
 Royal Dames of Cancer Research, Inc. ▲
 Walgreens Company
 [now d/b/a Walgreens Boots Alliance]

\$50,000–\$99,999

Rama R. Mantena
 Publix Super Markets, Inc.
 Santa Cruz Pharma Care
 Solara, Inc.
 Dr. and Mrs. Robert C. Speth

\$25,000–\$49,999

Apotex Corp
 Standard Process, Inc.

\$10,000–\$24,999

Accountable Care Options, LLC
 EmeraMed Limited/Dr. Ragnar Klingberg
 The George C. Dodge Foundation*
 Marian Lemle
 Stacey and Jeff Levy**

\$1,500–\$9,999

Cardinal Health
 CVS Charitable Trust, Inc.
 Lisa M. Deziel
 Exxon Mobil Foundation*
 Farmacia El Tuque Servi-Farm, Inc.
 Lcda. Maria Marrero, Farmacia San José #4
 Ellen Magalian
 Robert L. McGuire and Nell McMillan Lewis*
 NACDS Foundation
 NCPDP Foundation
 Amelia Roloff**
 Super Farmacia Vanga
 TOA Alta Pharmacy, Inc.
 Walgreens of Puerto Rico, Inc.

*NSU Rumbaugh-Goodwin Institute for Cancer Research

**NSU AutoNation Institute for Breast and Solid Tumor Cancer Research

▲ Member of the Fellow's Society: Shark Circle (university-wide cumulative giving of \$1 million+)

For information on giving opportunities, contact Shannon Brown, HPD director of development, at sbrown2@nova.edu or (954) 529-6776.

College Pride

Publications *and* Presentations

July–December 2016

Lillian Arce, Pharm.D. ('01), assistant professor of pharmacy practice, and Pharm.D. students **Daibelis Leon Amaro** ('17) and **Lesley Arcelay Feliciano** ('17), had their coauthored article, "Use of Medicines and Home Remedies in the Dental Care of Our Children," published in the October 15 edition of *My Pediatrician*. She also presented a poster with **Georgina Silva-Suarez**, Ph.D., and **Silvia Rabionet**, Ph.D., who are both associate professors of sociobehavioral and administrative pharmacy. The presentation, "Advanced Practice with HIV Population: Integrating Medication Therapy Management, Research, and Sociobehavioral Skills," took place at the American Public Health Association Annual Meeting & Expo held October 29–November 2 in Denver, Colorado.

Paul R. DeMuro, Ph.D., J.D., M.B.A., coauthored the chapter, "Health Information Technology," in the *2016 Substitute Text to E-Health, Privacy, and Security Law, 3rd Edition*. He also served as a panelist on the "Protecting Patient Privacy in Cyber Environments" seminar at the 2016 American Medical Informatics Association Annual Symposium held November 14 in Chicago, Illinois.

Peter Gannett, Ph.D., associate dean of research and graduate education, presented the paper, "Inhibition of Cytochrome P450 by Buckminsterfullerene," at the 252nd American Chemical Society National Meeting and Exposition held August 21–25 in Philadelphia, Pennsylvania.

Genevieve Hale, Pharm.D., BCPS ('13), assistant professor of pharmacy practice, coauthored the article, "Treatment of Adults with Idiopathic Recurrent Pericarditis: Novel Use of Immunotherapy," which was published in the February 2017

issue of *Pharmacotherapy*. She was also appointed as chair of the American College of Clinical Pharmacy Cardiology Practice Research Network Student and Resident Committee.

Anastasios Lymperopoulos, Ph.D., FAHA, FESC, associate professor of pharmaceutical sciences, had his coauthored research article, "The Beta1-Adrenoceptor Arg389Gly Polymorphism Confers Differential Beta-Arrestin Binding Tropism in Cardiac Myocytes," published in the September 19 online issue of *Pharmacogenomics*. Lymperopoulos coauthored the article with **Genevieve M. Hale**, Pharm.D., BCPS ('13), assistant professor of pharmacy practice, and Pharm.D. student **Katie A. McCrink** ('18). He also coauthored a research project with McCrink and **Ava Brill**, Pharm.D. ('16), "Beta-Arrestin-2 Stimulates Cardiac Function in Heart Failure Via SERCA2a Potentiation," which the trio presented at the 2016 European Society of Cardiology Congress last August in Rome, Italy.

Rochelle S. Nappi, Ed.D., director of student services, and **Christopher Lynch**, Pharm.D. ('97), presented the topic, "Leading a Multigenerational Workforce," at the 2016 FSHP Annual Conference in Orlando, Florida.

Farima F. Raof, Pharm.D. ('17), had her article, "Book Smart or Heart Smart: What Type of Intelligence Is Your Strength?" published in the August issue of *Florida Pharmacy Today*.

Mutasem Rawas-Qalaji, B.S.Pharm., Ph.D., associate professor of pharmaceutical sciences and Director of the Center for Drug Discovery and Development (CD³), and Ph.D. students **Alhussain Aodah** and **Rawan Bafail** published an original research article, "Formulation and Evaluation of Fast-Disintegrating Sublingual Tablets of Atropine Sulfate:

The Effect of Tablet Dimensions and Drug Load on Tablet Characteristics," in *AAPS PharmSciTech*. In addition, Rawas-Qalaji and Pharm.D. students **Naima Jahan** ('18) and **Yana Vorontsova** ('19) presented the poster, "Combination of Bottom-Up and Top-Down Techniques for the Fabrication of Epinephrine Nanocrystals," during the American Association of Pharmaceutical Scientists Annual Meeting and Exposition held November 13–17 in Denver, Colorado.

Elizabeth M. Sherman, Pharm.D. ('07), coauthored the article, "Pharmacist Engagement with a Hepatitis C Ambulatory Care Clinic in the Era of a Treatment Revolution," which was published in the November–December issue of the *Journal of the American Pharmacists Association*.

Devada Singh-Franco, Pharm.D., CDE, associate professor of pharmacy practice, and Pharm.D. students **Marlene Calix** ('16), **Heather Jarvis** ('16), **David Leon** ('17), and **My-Oahn Nguyen** ('17) presented the project, "Adopting Transitions of Care Within the Doctor of Pharmacy Curriculum," in July at the American Association of Colleges of Pharmacy Annual Meeting. She also served as the primary author of the paper, "An Updated Systematic Review and Meta-Analysis on the Efficacy and Tolerability of Dipeptidyl Peptidase,—4 Inhibitors in Patients with Type 2 Diabetes with Moderate to Severe Chronic Kidney Disease," in the July online issue of *SAGE Open Medicine*.

William R. Wolowich, Pharm.D., assistant professor of pharmacy practice, and Pharm.D. student **Leah Bensimon** ('17) presented an abstract and invited platform presentation, "Nonlinear Mixed Effects Pharmacokinetic-Pharmacogenetic Model of Intravenously Administered Delta-9-Tetrahydrocannabinol," at the September American College of Clinical Pharmacology Annual Meeting in Bethesda, Maryland.

Promotions

Young Kwon, Ph.D., associate professor of pharmaceutical sciences

Appu Rathinavelu, Ph.D., professor of pharmaceutical sciences

New Faculty Members

Yarelis Alvarado, Pharm.D., assistant professor of pharmacy practice

Paul DeMuro, Ph.D., J.D., associate professor of sociobehavioral and administrative pharmacy

Scott Kjelson, Pharm.D., CPh, director of student transitions/assistant professor of pharmacy practice

Raquel Lozada Diaz, Pharm.D., clinical assistant professor of pharmacy practice

Shirin Madzhidova, Pharm.D., clinical assistant professor of pharmacy practice

Cynthia Moreau, Pharm.D., assistant professor of pharmacy practice

David P. Nau, Ph.D., assistant dean of accreditation and assessment and professor of sociobehavioral and administrative pharmacy

Georgina Silva-Suarez, Ph.D., assistant professor of sociobehavioral and administrative pharmacy

Albert Wertheimer, Ph.D., professor of sociobehavioral and administrative pharmacy

Employee Milestones

Each year, NSU recognizes employees who have reached milestone years of service. This year, the college is proud to celebrate the following employees who have contributed to growth through their ongoing dedication and commitment to the mission, vision, and core values of the College of Pharmacy.

25 Years



William D. Hardigan, Ph.D., dean emeritus and professor of pharmaceutical sciences, served as dean of the College of Pharmacy from 1991 through 2004. Hardigan received his B.S. in Pharmacy and M.S. in Business Administration from the University of Wyoming before earning his Ph.D. in Pharmaceutical Sciences at the University of Arizona.

Throughout his distinguished career, Hardigan served as a U.S. Army Wardmaster and as a faculty member at both the University of Wyoming and the University of Arizona. Before becoming a dean at Southeastern University of the Health Sciences—now Nova Southeastern University—he was associate dean at Ferris State University College of Pharmacy in Big Rapids, Michigan.

Among his many accolades, Hardigan has three patents with Dow Corning Corporation, designed and opened NSU's Clinic Pharmacy, extended the Pharm.D. degree to distant sites and campuses, contracted with the South Florida Mental Health Hospital to provide in-house pharmacy services to the hospital, and initiated the Advanced Standing Pharm.D. Program for international pharmacists. He currently teaches two elective courses—History of Pharmacy and Pharmacoethics—and continues to contribute his expertise to the college's faculty members and students.

"Operating the family is like running a college," Hardigan said. "I owe any success at NSU to the outstanding students, faculty and staff members, and administrators of the college at that time." He has been married to his wife, Janet, for 58 years and has 8 children—3 of whom are pharmacists—24 grandchildren, and 6 great-grandchildren.

[Fort Lauderdale/Davie Campus]



Hardigan family

20 Years



Dawn DaCosta, M.A., director of academic support services, provides leadership and support to the college and coordinates activities to achieve the college's mission and strategic plan. She received her M.A. in College Student Administration from NSU. Originally from Jamaica, she is responsible for developing and implementing professional program schedules and initiatives, as well as advising and providing academic data for the college. DaCosta works closely with the college's dean to ensure that professional program services adhere to the college's mission, policies, and procedures. In addition to her administrative role, DaCosta teaches the elective course Leadership Engagement and Development.

[Fort Lauderdale/Davie Campus]



Leanne Lai, Ph.D., professor of sociobehavioral and administrative pharmacy, is committed to advancing pharmacy education, both institutionally and internationally. She received her Ph.D. in Pharmacoeconomics in 1996 from the University of Maryland and specializes in pharmacoeconomics, outcome research, biostatistics, and international education.

During her 20-year career with the college as a statistical researcher and collaborator, she has authored hundreds of publications and presentations. In 2002, she cofounded the International Pharmacy Program and served as program director for 10 years before returning to full-time teaching. Lai, who is a native of Taiwan, has developed numerous collaborative research and educational projects with leading institutions of higher learning in Latin America, Asia, and Europe.

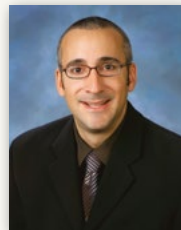
[Fort Lauderdale/Davie Campus]

Employee Milestones

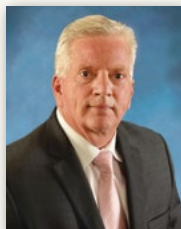
15 Years



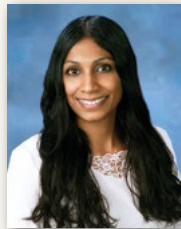
Michelle A. Clark, Ph.D.,
associate professor and chair
of pharmaceutical sciences
[Fort Lauderdale/Davie Campus]



Matthew J. Seamon, Pharm.D., J.D.,
associate professor and chair
of pharmacy practice
[Fort Lauderdale/Davie Campus]



Todd R. Schmidt, B.S.Pharm.,
pharmacy manager/instructor,
South Florida State Hospital
[Fort Lauderdale/Davie Campus]



Devada Singh-Franco, Pharm.D.,
associate professor of
pharmacy practice
[Fort Lauderdale/Davie Campus]

5 Years

Jeffrey G. Jurkas, M.B.A.,
interim director—student services, coordinator of
admissions and recruitment
[Fort Lauderdale/Davie Campus]

Young M. Kwon, Ph.D.,
associate professor of pharmaceutical sciences
[Fort Lauderdale/Davie Campus]

Jean J. Latimer, Ph.D.,
associate professor of pharmaceutical sciences
and director of the NSU AutoNation Breast and
Solid Tumor Cancer Institute
[Fort Lauderdale/Davie Campus]

Rocio D. Navarro,
accounting administrator
[Fort Lauderdale/Davie Campus]

Jaime Riskin, Pharm.D.,
clinical assistant professor of pharmacy practice
[Fort Lauderdale/Davie Campus]

Kim G. Simmons,
administrative coordinator of the Ph.D. Program
[Fort Lauderdale/Davie Campus]

Alumni Pride



Homecoming Reunion Honors Charter Class of 1987

The second annual Alumni Homecoming Reunion was held on November 4. Organizers connected with alumni world-wide, resulting in more than 70 alumni returning to NSU to enjoy drinks and appetizers with former classmates and some of their favorite faculty members.

The charter class of 1987 was honored during the festivities, with honorees including **Robert Colosimo**, Pharm.D. ('91), and his wife, **Maria Colosimo**, B.S.Pharm. ('90); **Dina Besece**, Pharm.D. ('91); **Ann Lumia**, Pharm.D. ('91); **Aida Mendez**, B.S.Pharm. ('90); **Lourdes Moenck**, B.S.Pharm. ('90); **Susan Play**, B.S.Pharm. ('90); **Blanca Rivera**, B.S.Pharm. ('90); **Geraldine Scheaffer**, B.S.Pharm. ('90); **Rafael Torres**, B.S.Pharm. ('90); **Rosa Villavicencio-Morales**, Pharm.D. ('91); and **Mark Youngross**, B.S.Pharm. ('90).

During the event, **Lisa M. Deziel**, Pharm.D., Ph.D., COP dean, thanked everyone for their contributions to the college and highlighted the exciting new endeavors the university is pursuing as a leading facility for research and innovation at the new NSU Center for Collaborative Research.

Additionally, the SharksRx Alumni Society held its inaugural meeting, which was led by **Goar Alvarez**, Pharm.D., CPh, assistant dean and 1994 alumnus. The society will promote and communicate the college's goals and achievements, promote a spirit of unity and investing in the future of pharmacy education among alumni and friends, and continue to reach out to fellow alumni as we grow the college and the society.

The 2017 Alumni Homecoming Reunion is scheduled for Friday, November 3, at the NSU Fort Lauderdale/Davie Campus. Additional information will be posted at pharmacy.nova.edu and via email.

The College of Pharmacy is committed to engaging alumni who make a difference in the lives and careers of our students through involvement and mentorship. Please contact us at copalumni@nova.edu for more information on alumni news and events and to become a member of the SharksRx Alumni Society. 🍷

Above: **Lisa M. Deziel** (center) is pictured at homecoming with members of the charter class of 1987.

Alumni Pride

Alumni Achievements

1994

Goar Alvarez, B.Pharm., Pharm.D., CPh, assistant dean, pharmacy services, has been appointed as the Florida pharmacy liaison and as chair of the Tripartite Committee of the Florida Board of Pharmacy.

1998

Francienid Morales, Pharm.D., received the 2016 Diabetes Top Leadership Award from Sanofi. "I am so thankful for this honor and appreciative of my teammates who help me stay motivated, keep ideas fresh, and allow us to create great things together," said Morales, who has served as Sanofi's senior regional medical liaison for more than 15 years.

Richard Stark, Pharm.D., passed away on January 10, 2017.

1999

Richard Ashworth, Pharm.D., was named *Chain Drug Review's* Operations Executive of the Year in 2016.



David Ballesteros, Pharm.D., is the new chief pharmacy officer and head pharmacist at *MailMyPrescriptions.com*, where he is in charge of overseeing customer experience throughout the pharmacy network.

2005



Alexandra Rivera (Perez), Pharm.D., M.S., and her husband, Shamir, welcomed their second child, Camila Grace, in September.

2006

Jennifer Gershman (Fass), Pharm.D., C.Ph., is a regular contributor to *Pharmacy Times*, providing practical information for today's pharmacists.

2007



Kenisha Adderley (Carr), Pharm.D., joined ChenMed—a family of companies in Miami, Florida—where she delivers health care to seniors. She serves as the medication computerized order entry (COE) manager and is responsible for the operation and management of all aspects of the medication COE for ChenMed and JenCare.

Kimmi Stultz (Le), Pharm.D., opened Juicery Rx—a smoothie and juice bar, beer garden, and tea room—in Coral Springs, Florida. Stultz is using her training as a clinical pharmacist to create juices to help with health conditions, such as depression, fatigue, autoimmune disorders, and pain. Juicery Rx was ranked by *New Times* as one of the best juice bars in Broward and Palm Beach counties.

2009

Andrea Levin (Fass), Pharm.D., and husband, Jay, welcomed their first child, Sarah Gabrielle, in February 2017.

Jamie Spray, Pharm.D., joined Sincerus Florida, LLC—a compounding pharmacy in Pompano Beach, Florida—as the pharmacist in charge/compliance officer.

2013

James Neilen, Pharm.D., began working at Florida Hospital in Orlando in December as a clinical staff pharmacist. After graduating from the College of Pharmacy in 2013, Neilen completed a mental health pharmacy residency at Providence VA Medical Center in Rhode Island.



2014

Gloria Huh, Pharm.D., is serving as the supervisor of transitions of care and ambulatory care pharmacy practice at Providence Health in the greater Los Angeles, California, area. In this role, Huh is exploring the innovative ways pharmacists can be positioned in

the health care system to decrease readmission rates and improve quality of care.

Shannon Koch, Pharm.D., BCPS, accepted a position as a clinical pharmacist at the University of Chicago Medicine.

Yesenia Prados, Pharm.D., clinical pharmacist at Nova Southeastern University College of Pharmacy, is heading the Medication Therapy Management Centre.

2015

Diana Almasri, Ph.D., accepted a position as assistant professor at King Abdulaziz University (KAU) in Saudi

Arabia. She is also serving as director of research and innovation and director of faculty development at KAU School of Pharmacy.

Ahmad Noor, Ph.D., was appointed assistant dean for administration and finance and general manager of the Communication and Information Center at King Abdulaziz University in Saudi Arabia.

2016

Mansour Almetwazi, Ph.D., accepted a position as assistant professor of hospital and health care and training unit supervisor at King Saud University in Saudi Arabia.

Abdullah Althemery, Ph.D., is serving as an assistant professor in the Department of Clinical Pharmacy at Sattam Bin Abdulaziz University in Saudi Arabia.

Srinath Muppalaneni, Ph.D., accepted a position as senior formulation scientist at Sancilio & Company, Inc., in Riviera Beach, Florida.

Virtual Networking Events Link Alumni Worldwide

The NSU Alumni Association offers a free series of virtual networking events for NSU alumni and students. Via desktop or mobile device, individuals participate in up to 1 hour of 10-minute, one-on-one, text-based chats with fellow participants. For more information and to register, visit NSU Chats at nova.edu/alumni/events/nsu-chats.html.

NSU Pride



Sea Turtle Conservation Program HITS NEW MILESTONE

THE RESEARCHERS AND VOLUNTEERS who work with the Broward County Sea Turtle Conservation Program were busy in 2016, which turned out to be a record year for sea turtle nests in the county.

NSU has been working with Broward County to administer the Broward County Sea Turtle Conservation Program for more than a quarter century.

Derek Burkholder, Ph.D., who serves as a research scientist at NSU's Halmos College of Natural Sciences and Oceanography and as principal investigator and director of the program, said there were 3,567 nests documented on Broward County's beaches in 2016—the most since the program began in 1981. Sea turtle nesting season on Florida's east coast runs from March 1 through October 31.

Burkholder said it's too early to say why the numbers jumped so much; but, he indicated that they have been rising over the past few years. He attributes the rise to a better understanding of sea turtles by the public and better conservation and management that has been put in place during the past few decades. "It's wonderful to see the hard work of so many. 🍷"



Three Online Programs Earn National Ranking

U.S. NEWS & WORLD REPORT ranked three NSU online programs—criminal justice, nursing, and education—as some of the best in the United States. "Online education is at the foundation of NSU, and we're a leader in this educational delivery method," said George L. Hanbury II, Ph.D., NSU president and chief executive officer. "Reaching students and providing educational opportunities that best suit their needs is something we're very proud of and something we're committed to today, tomorrow, and well into the future."

The online graduate programs are ranked based on a variety of criteria, including student engagement, faculty credentials and training, student services and technology, admissions selectivity, and peer reputation. 🍷



NSU Earns Military Friendly School Designation

NSU WAS SELECTED as a recipient of the 2017 Military Friendly School designation by Victory Media, a publisher of *G.I. Jobs*, *STEM Jobs*, and *Military Spouse*.

"We've been working to make NSU a university our veterans want to attend, and this designation is recognition of those efforts," said George L. Hanbury II, Ph.D., NSU president and chief executive officer. "We're home to approximately 1,000 student veterans, and we want to do everything we can to make them, and their fellow servicemen and women, feel at home. As they transition back to civilian life, we're pleased they are choosing NSU to help them along their journey."

Established in 2003, Military Friendly Schools is the most comprehensive, powerful resource for veterans today. Each year, the list of schools is provided to service members and their families, helping them select the best college, university, or trade school to receive the education and training needed to pursue a civilian career.

NSU will be showcased along with other 2017 Military Friendly Schools in the annual *Guide to Military Friendly Schools*, special education issues of *G.I. Jobs* and *Military Spouse*, and on *militaryfriendly.com*. 🍷

It's Time to Get Published!

Tell us your stories and see your name in **SharksRx**. Please let us know if you have

- been promoted or accepted a new professional position
- had a major article or book published
- been appointed to a committee or board of directors
- conducted research
- received any special awards or recognition

We also encourage announcements about births, marriages, or recently deceased alumni.

We want to know about your achievements, so please email your information to copalumni@nova.edu by November 30. Please include a high-resolution, original photo in a JPG or TIF format.

We look forward to hearing from you.

