

ODASIS NEWSLETTER

Vol. 18

**Office for Diversity and Academic
Success in the Sciences (ODASIS)**



"The Legacy Lives On"
*Dr. Francine Essien and
Dr. Emmet Dennis*

RUTGERS

School of Arts and Sciences

Thanks to our program donors!

ODASIS would like to thank all alumni for their generosity and contributions and would like to highlight those that donated during 2020-2021:

- Mr. Ahmed S. Abdellatif
- Dr. Amaka Awoniyi
- Dr. Nadine Bloomfield
- Dr. John Castillo
- Dr. Christopher Chisholm
- Ms. Vida Cofie-Robertson
- Dr. Tracy Doering
- Dr. Donyell Doram
- Dr. Kenechi K. Ebede
- Dr. Norman Einstein
- Dr. Darlene Forth Ellison
- Professor Gene Hall
- Mr. Andrew Harrison
- Dr. Ijeoma Hassan
- Dr. Megerditch Kiledjian
- Dr. Nancy Lord
- Dr. Tiffany A. Martinez
- Dr. Alyson McGhan Johnson
- Dr. Margarita Moreno-Borghini
- Dr. Thobekile Thandi Ndlovu
- Mr. Glenn L. Noland
- Dr. Jennifer Chioma Nwsosu
- Dr. Chidubem Okafor
- Dr. Charlton Olayemi
- Dr. Russ Onishi
- Dr. Karla Perez
- Dr. Elsa Pichardo
- Dr. Lillawati Ramphal-Naley
- Dr. Susan Rasul
- Dr. Paul Edward Redpath
- Dr. Nii Amon Robertson
- Dr. Laury Rosefort
- Dr. Michael Ruzek
- Allison and Dr. Corey Smith
- Mr. George Stahanovic
- Ms. Daryl Von Herbert
- Dr. Ayanna Woltz

Please make checks payable to:

Rutgers, the State University of NJ
In the memo, kindly write: ODASIS

Mail to:

Rutgers, the State University of New Jersey
Nelson Biological Laboratories, Room A201
604 Allison Road, Piscataway, NJ 08854



Thank you to Dean Peter March
for his support and service over
the years.

A Legacy Lasting Generations



In March of 2022, we lost two great pillars of the ODASIS family. Within just days of each other, Dr. Francine Essien and Dr. Emmet Dennis- the founders of the wondrous program that is ODASIS- passed away. It took a heavy toll on all who knew them: former colleagues, alumni who studied under them, and even the current ODASIS students, who know that their opportunities for success are credited to these two pioneers.

ODASIS began as a vision in Dr. Essien's heart, borne from the desire to create a strong and systematic program for underrepresented minority students to ultimately introduce a more diverse workforce to the field of healthcare. She had a patient but powerful presence, and she could move mountains with her humble nature and dedication. So, in her quiet and unassuming way, she was able to secure administrative support and financial backing for the program from university higher-ups and establish the framework of that dream.

She could not have done so without the tireless support of her close friend and colleague Dr. Emmet Dennis. Equally dedicated to assisting students achieve their dreams, Dr. Dennis was the kind of person who would hold extra tutoring sessions at 5:30 am if even one student expressed interest. His energy, style and excellence supplemented that of Dr. Essien, and they joined forces to create something that would last generations.

"That was powerful, that they did not have to do it alone," said Dr. Arnold Hyndman, a colleague of both Dr. Essien and Dr. Dennis. "And Dr. Essien knew the importance of community. When she was awarded in Washington D.C. for her outstanding work, she refused to accept the award unless the individuals and colleagues who collaborated with her rose to the stage too. Both she and Dr. Dennis believed that we share in the success of one another, and in the pain and difficulties of one another." That strong friendship and collaboration set the foundation for the close-knit bonds that are formed through the ODASIS program, one that spans the country and generations.

Their legacy lives on to this day. At the 2022 ODASIS Graduation Ceremony, ODASIS alum Darius White- who is just about to begin his residency at Harvard- was presented with the Dr. Francine Essien and Dr. Emmet Dennis Achievement Award. The award, given in the name of two humble, hard-working and utterly dedicated individuals, was presented to someone who exemplifies vision, resilience and excellence. These are the traits that Drs. Essien and Dennis propagated themselves; they founded the very pillars of ODASIS on those values. To see a current student achieving his dreams with the same exceptional performance and dedication would have made Dr. Essien and Dr. Dennis proud.

In an emotional speech after receiving the award, Darius said, "I really feel like ODASIS saved my life. I got the tools I needed, I got the guide step by step in how to become successful, I got the community that I needed. And now I'm here, ten years later. I'm one step away from graduating from medical school and the residency of my dreams. I want to thank Dr. Essien and Dr. Dennis deeply; even though I never got to meet you, I'm still so thankful for everything that you've done and the legacy you've created."

The Significance of 'Opportunity'



Perhaps one of the biggest highlights of the Graduation Ceremony each year is the alumni guest speakers who return to these hallowed grounds to extend their heartfelt pride and well wishes to the year's graduates. These successful individuals are a testament to the legacy of the program, one that vastly spans both time and distance, and offer a wealth of advice to the graduates. One such speaker was alum, Dr. Hector Osoria.

Dr. Osoria credited ODASIS with providing outlets of academic, professional, and personal opportunity for underrepresented minority students to succeed and achieve their dreams. But beyond simply recognizing the fact that ODASIS provided and continues to provide excellent resources, Dr. Osoria emphasized the importance of actively using those

opportunities along their journey. "You can't be afraid of failure if you want to do great things, because failing is part of greatness, failing is part of the success," he said. "If you're afraid of failing, then you're going to miss the opportunity to come back smarter, better, and more prepared for the next opportunity that comes."

He then emphasized the importance of advocating for others. Half of the journey is paying it forward for the next generation of minority students, Dr. Osoria said in a powerful statement. Passing the mantle by ensuring that the opportunities that were made available to you are kept open for your successors is vital to bringing up the community at large. That's what ODASIS is: a community and a family.

"We're in a time now in healthcare where we have opportunities to be in the room and to make decisions. So, when you have a seat at the table, you are obligated to bring in another seat with you," he intoned. "That part is not a choice. Not for us. We must walk through those doors and hold it open for the person coming in behind us, because that's the only way it changes. If not you, then who? If not now, then when?"

Commendation from Rutgers' President



After two long years of hybrid instruction, virtual interaction, and remote events, the 2022 ODASIS Graduation Ceremony marked a return to normalcy as the first in-person ODASIS graduation since 2019. Traves Hall was filled and the sense of joy in the air at being able to celebrate with one another for the first time in a long time was palpable. It was a fantastic commendation of excellence amidst a time of strife. Among the honored speakers was distinguished Rutgers

University President, Jonathan Holloway, who shared in the celebration as an 'honorary ODASIS alumni' for the evening.

He dubbed ODASIS as not only one of the best minority-serving pipeline pre-health programs in the country, but as a place that embodies incredible promise, founded upon the close-knit feeling of 'family' cultivated amongst its participants to foster a holistic understanding of society and medicine. "ODASIS has changed the way that medical care is delivered at all different kinds of levels, locally, nationally, and internationally," he said as he expressed his pride in the network of resilient individuals that comprise the alumni and students of the ODASIS program.

President Holloway's final words of encouragement to the graduates were words that will remain with them as they go on to pursue their ambitions:

"Beneath each mortar board is a mind that will tackle challenges in a hospital, a healthcare center, a community, and change lives for the better. Under each graduation gown are the hands that may make new medical discoveries, develop new treatments, and save lives. And in each white coat, will live an individual whose own personal story of perseverance may one day inspire a young person in that same community to do the hard work required of excellence and leadership.

"You will do great things. You, quite literally, are what excellence looks like. People do not believe that folks who look this great can do such wonderful things. You show them wrong every day; continue to do so. Remember, you are not supposed to be here. But you are."

Academic Year 2021-22 Grade Comparisons

General Biology

	ODASIS	vs.	Rutgers
≥B	42.42%		45.33%
	ODASIS	vs.	Rutgers
≥C	67.42%		70.40%

Organic Chemistry

	ODASIS	vs.	Rutgers
≥B	39.07%		37.82%
	ODASIS	vs.	Rutgers
≥C	88.74%		78.79%

General Chemistry

	ODASIS	vs.	Rutgers
≥B	27.05%		33.12%
	ODASIS	vs.	Rutgers
≥C	73.97%		73.02%

Genetics

	ODASIS	vs.	Rutgers
≥B	63.33%		53.33%
	ODASIS	vs.	Rutgers
≥C	100%		86.81%

Mathematics

	ODASIS	vs.	Rutgers
≥B	30.90%		34.35%
	ODASIS	vs.	Rutgers
≥C	55.45%		60.24%

Physics

	ODASIS	vs.	Rutgers
≥B	40%		36.24%
	ODASIS	vs.	Rutgers
≥C	84.71%		71.75%

Strategies for Success—Tips from Recent Grads

Making it Through Med School: How to Adjust



ODASIS alumna Aushenay McNeil completed her first year of medical school at NJMS. Having graduated from Rutgers and ODASIS the prior spring, she made the choice to go straight into her career as a medical student. It was a no-brainer for her. “I love being in school!” Aushenay enthused. “In school I feel sharper, I like the feeling of working towards a project or a big academic goal. I like flexing that mind muscle. When you’re learning about

something so close to what you want to ultimately do and what you’re going to use, it’s something very beautiful.”

Aushenay’s foray into her medical school journey began with the pre-matriculation program she completed over the summer. Beginning the day after her graduation, it was a sample- albeit virtual- of medical school. But Aushenay was still blindsided by the sheer volume of information in the curriculum; exams every two weeks covering over 30 lectures of content with 3-4 lectures per day, an unstoppable train moving at lightning speed that one must fight to stay on.

“The emotional, mental and social shift from undergrad to medical school is unlike any other. There are countless external stressors, so you must really be intentional with your time,” she counselled. “It hit me hard in February this year. I didn’t give myself the break of a gap year, and I realized that I had to work on giving myself breaks throughout

in order to keep myself going.”

Establishing boundaries for herself was the first step in Aushenay’s adjustment as she realized that she had to prioritize self-care. “Only when you truly feel comfortable in your mind and body can you truly help those you are seeking to help,” Aushenay reflected. Learning that she couldn’t be stubborn when her body reached its limits, she found ways to balance the rigorous demands of the medical school curriculum with her own needs.

“I’ve learned that when you stop doing just med school every day, it becomes more rewarding. Branching out to volunteer and ingrain myself in the community made it more enriching for me. I’ve let myself be a bit happier, I call home every day, I spend a bit more time focusing on my well-being and doing the things I enjoy. I’m not just a medical student. I am a person. I am Aushenay McNeil. And that mindset has made all the difference.”

From Self-Studying to Success: An MCAT How-To



Preparing for the Medical College Admissions Test is a daunting task. For pre-medical students, it feels like their entire future is on the line. Kezia Van Lare, recent graduate from ODASIS and current student at Sidney Kimmel Medical College, chose to prepare through a self-studying regime.

“I took the MCAT class, and it was a great starter for me,” said Kezia. “But I wasn’t mentally prepared for the MCAT or medical school then. I wasn’t ready and I knew that.” After she got her scores back, Kezia decided to take some time off and work, as well as reevaluate her planned path to success. As she spoke with the doctors she shadowed, her aspirations to become a physician were renewed.

She began to study on her own amid the pandemic. For Kezia, it was all about finding the strategy that worked best for her pace of learning. “My study regime was non-linear because I was first working part-time and in school part-time, and then working full-time,” she reflected. “I did content review using Kaplan books, and then bought 10 practice tests from Altius. I realized that taking notes didn’t help me as much, so I turned to some great YouTube videos and to Reddit, where I was able to research how to study and speak with other students. You need to make use of every available resource.”

Alongside diligence and a clear goal ahead, Kezia pinpointed humility as a key attribute that helped her succeed through her journey. “Instead of going back and figuring out what they don’t know, a lot of people will make excuses about why they are missing the content. You need to go back and review your content. You need to accept that there are people who know more than you, and you need to reach out to them for help,” she advised. “You need to find a good balance between being humble and having confidence, because too much of the latter will turn to pride and that hinders you a bit.”

Kezia is a testament to her words. Staying humble and working hard, she forged a path to her own success. We wish her the best of luck in her journey at Sidney Kimmel Medical College and are proud of the example she sets for current pre-medical ODASIS students.

Cultivating Confidence



Dr. Emmanuel Hove has become a familiar face to faculty and students alike. As an Associate Teaching Professor, Dr. Hove has served as a Chemistry instructor for students in the ODASIS program since 2010. While few students in the program are Chemistry majors, most rely on instruction from Dr. Hove to excel in the subject as a prerequisite to their health-related courses. He is greatly dedicated to doing so.

Dr. Hove's instruction centers on the concept of active learning. "Don't just tell them the answer. Allow them to troubleshoot and get it on their own," he advised. "I always ask: 'What do you have to bring to the program? What do you have to say?'" His pedagogical strategies foster a sense of intellectual independence in his students, one that will give them the confidence they need to excel in their rigorous science-based coursework.

"Confidence is very important," said Dr. Hove. "Many students find chemistry intimidating. My job is to calm them, and make sure they are confident in what they are doing right from the beginning." Most students in the program grapple with the pressure to pave a bright future for themselves and their families, as they come from underserved backgrounds. Through his conscientious understanding of the demographic he is instructing, Dr. Hove's methodology grants students the opportunity to cultivate a sense of self-image and self-confidence that subsequently spreads to other aspects of their lives.

And the students are exceptionally grateful for his dedication. Nicole Tavernier, an ODASIS alumna who attended RU-RWJMS and subsequently UPENN for Anesthesiology, credited Dr. Hove for her present success: "I am so extremely thankful for all the work that you do. Your passion for chem and your belief in me truly propelled me to push forward and learn chemistry, a subject that many struggle with." Solomon Williams, a current ODASIS student who excelled in Chemistry, also expressed the impact Dr. Hove had on his own trajectory: "You have helped me successfully navigate through General Chemistry each step of the way. You were also the first science instructor of color that I have ever had, and it has inspired me tremendously to continue in pursuit of my STEM career."

Dr. Hove is truly a shining example of dedication to students. He credits his involvement with ODASIS to Director Dr. Khan, who extended the invitation to instruct ODASIS students over a decade ago. "Dr. Khan advised me that I must care for the students first. 'Don't just treat them like they are students, you must treat them like they are your children,' he told me. And I do. I'm always happy to receive an email where a student has succeeded," Dr. Hove said. "It's not about the money. This kind of success, helping the students, that is my pay." Dr. Hove has impacted many lives through his journey with ODASIS, and we thank him for his commitment to our students.

AAMC stats for 2021-2022

In 2021-2022, the AAMC ranked Rutgers:

- 8th out of 125 schools in number of Black/African American applicants to medical school
- 30th out of 149 schools in number of Hispanic/Latinx applicants to medical school



ODASIS in the White House

Dr. Alister Martin, a respected and lauded ODASIS alum, has spent the past year working in the Office of the Vice President and Office of Public Engagement as a White House Fellow. Up until his position in the White House commenced, Dr. Martin was practicing in the emergency department while also establishing *Vot-ER*, a nonprofit melding healthcare and civic engagement through the establishment of hospitals, clinics and care centers where patients have access

to nonpartisan voter registration.

Speaking on this intersection of practicing medicine and medical advocacy in the political sphere, Dr. Martin deemed ‘civic health’ as the center of the scale linking physical health to civic representation. “You can look at a map and find districts where voter turnout and voter registration are low, and those correlate to the exact zip codes where health outcomes are low and social vulnerability is high,” he said. “There is a near one-to-one correlation. People are not getting the resources they need to keep them happy, healthy, and whole.” Those observations have been his motivation to make a difference.

Working in the White House has allowed Dr. Martin to enact change on a mass level. Building and leading projects on a plethora of levels- individual, regional and federal- Dr. Martin has been able to incorporate initiatives into federal programs and policies. “One thing I’ve internalized this year is that the federal government is the best way to impact the most people in the greatest number of ways,” he reflected. “The scale is enormous. I think I knew that logically before my time in government, but there is nothing like experiencing the power you must make positive change by being in

the room where it happens.”

As to how he got to the room where decisions are being made, Dr. Martin credited ODASIS as a driving factor to his success. With invaluable lessons, unforgettable friends and a stalwart community, ODASIS showed him the importance of the “why” behind his motivations to become a physician. The support he received during his time at ODASIS allowed Dr. Martin to begin paying attention to disenfranchised individuals who don’t have access to the resources they need to receive quality healthcare, which has been a driving factor behind his work today. He credits the ODASIS community for that.

“If you’re interested in making change, it’s all about building community and building our power in the communities we represent,” said Dr. Martin. “This is an incredibly potent opportunity to build a powerful network of folks who are interested in changing the future of our healthcare system and our country at large. For me, it’s also an opportunity to learn how to do both of those things on a large scale.” ODASIS gave Dr. Martin the tools to make change and his example will inspire the next generation of ODASIS graduates to do the same.

A Brighter Future

Medicine is a historically white, male-dominated field. As such, many underrepresented minority individuals and communities have experienced a disparity in service from the field. Yet with the increased importance of promoting diversity in society at large over the past several years, it has become clear that institutions are making deliberate changes to make way for new procedures and efforts to increase minority representation and inclusion within their programs.

In Tufts Medical School, for example, ODASIS alumna Sabrina Lima is one of 26 students in the 295-member class of 2025 who identify as Black or African American. This is a seemingly unprecedented leap, seeing as the school had only nine such students the previous year. “We’ve never seen such an increase within a short amount of time,” said Norma Poll-Hunter workforce diversity leader at the Association of Medical Colleges.

This large spike in the number of black students in Tufts Medical School, and indeed medical programs throughout America, is the result of admissions boards’ conscious decision to uncover and combat the unconscious bias that factors into their admissions process and unfortunately has prevented minority individuals from entering their institutions. More medical programs are inclined to waive their application fees, allow students to interview remotely, provide more need-based scholarships and look beyond test scores at other factors that will impact the likelihood of success for a candidate.

These fundamental changes to institutions and stereotypes surrounding the medical field, and indeed surrounding the sciences in general, pave the way for a new generation of tolerant and culturally competent healthcare professionals. After all, research has proven time and time again that across all races, patients feel a

higher rate of satisfaction and comfort with their care when their doctor looks like them.

ODASIS remains a hallmark of what an inclusive and empowering pipeline program for health sciences should look like. Touted as a model for thousands of other institutions to follow, we now see a surge of medical schools following suit to allow for students like Sabrina to pursue their ambitions of becoming healthcare professionals. The result: these students can go back to their communities and practice, extending care to communities that have been long disenfranchised by societal barriers. “I definitely want to open up clinics,” said Sabrina. “I want to work in low-income areas. I see myself serving first-generation immigrant families in Newark near my own hometown in Union, NJ. A lot of my early health experiences have been in Newark, so I have a heart for that community.”

Nurses

Arsema Amare, BSN RN



Arsema Amare graduated from Rutgers Newark Accelerated Nursing Program this year and has begun her career in the Cardiothoracic ICU division at the University Hospital in Newark. Having always loved the idea of giving back to her community, Arsema knew she wanted to pursue a career that allowed her to serve those around her. But during the early years of her

undergraduate education, she didn't know what that looked like.

"I was exposed to health administration, which made me realize that I wanted to work in healthcare. But I found that realm

of healthcare to be extremely business oriented. I wasn't getting the hands-on connection with people that I was looking for," said Arsema. "I wanted to make sure that I would go home every day feeling like I made a positive difference in someone's life. After my amazing volunteer experience, I knew that nursing was what I wanted to do."

As a bilingual person of color, Arsema assists many patients, particularly those who don't speak fluent English. Representation goes a long way, she said. "Now that I've been a nurse for a few months, I can see that patients feel valued and feel like I'm relatable. It becomes more personable. In my work now, I can see the difference I'm making."

Jose Bueno, BSN RN



Jose Bueno has been practicing nursing for the past 3 years at Penn Medicine Center in the Critical Care Unit. His start at ODASIS was a moment of perfect serendipity. "I walked into the wrong room," he reminisced. "I was looking for another program's tutoring session and accidentally walked in to see Dr. Khan lecturing a group of students. When he asked me why I was

late, I told him I entered the wrong room. When he asked me why I chose to stay, I said that I liked what I was hearing. From then on, my position in ODASIS was cemented."

Jose's career trajectory placed him in the ICU at one of the

most rigorous times for nurses: the COVID pandemic. "At the beginning, we thought it was regular pneumonia," he reflected. "It was a scary time, wearing masks all the time. Within about 3 months you started seeing burnout among nurses. And the vaccines didn't stop the waves."

But he found that witnessing the struggle faced by underrepresented minority patients emboldened him to continue working to bridge the gap in healthcare disparities. "Patients need to find a nurse that looks like them," Jose concluded. "It makes it easier for us to give them the best care when they are more likely to trust us. I always try to provide that sense of security that inspires trust within patients in their healthcare professionals."

Stephany Caicedo, BSN RN



Stephany Caicedo was among the many alumni working through the pandemic. Keeping a calm approach in the face of such fear and uncertainty, she worked her way through the struggles, relying on her fellow nurses to buoy her resolve. "I had a month of normal ER patients and then the pandemic hit," Stephany reflected. She was placed with an experienced nurse for the

first 3 months, however. That guidance was pivotal in preventing her from experiencing burn-out during those early months.

Stephany ultimately decided to pursue nursing when she

saw how interpersonal the field was, allowing for strong bonds to be cultivated with patients and families. "It's a profession that you have so much autonomy in," she said. "There's a lot of independence. Of course, you must learn certain guidelines and protocols that you need to know off the bat, but there's always something different every day."

That dynamic nature of the profession is what kept Stephany going through the trials of the pandemic. "It was a curveball for sure, but I ended up relying on fight or flight and just sort of pushed through. The pandemic made me a better nurse; now the typical ER doesn't seem as scary! I think I'm there to stay."

Ruben Cruz, BSN RN



Ruben Cruz's journey to nursing is an inspiring one. His mother passed away from terminal illness when he was just 12 and shortly after his father was diagnosed with cancer. Ruben stepped up as caregiver to administer holistic care to his family members from a very young age, which became the driving factor that set him on the track to pursue nursing.

After his four years in ODASIS, Ruben chose instead to work with his father in real estate development. "Getting a master's at that time didn't seem feasible to me, so I had to think about what

I was going to do financially," said Ruben. "That's when I found myself gravitating towards the path of nursing." He completed the accelerated BSN Program at Rutgers Newark, graduated with a 3.8 GPA, and now works in the medical ICU in Jersey Shore.

Ruben credits the tireless support from his father, sister, girlfriend and ODASIS for helping him attain his dreams. "I wouldn't be where I am without them," he uttered. To current ODASIS students thinking of pursuing nursing, he says: "Do it. Just do it. Don't think twice about it. It's not any easier or harder than any other healthcare field. It's attainable. Don't waste any time because the nursing profession needs you!"

In Their Words—Charting a Path to Success

Well Wishes

Jennifer Hernandez spent her hiatus year working as a Clerical Assistant for ODASIS before matriculating into New Jersey Medical School. Spending her time giving back to the community that supported her throughout her pre-medical journey as an undergraduate student at Rutgers was, she said, an honor and a privilege, and she was glad to be able to help students like herself achieve their own dreams.

Jen assisted the staff in planning major ODASIS events, including the Motivational Workshop in the fall and the Graduation Ceremony and Alumni Reception in the spring. For the Motivational Workshop, she took the initiative to create a how-to video with tips and techniques on how to study for students to follow. Jen's positive attitude

and congenial nature sets all who meet her at ease right away. She is always so eager to help others and connects easily with those around her. Every single staff member had wonderful things to say about her and their experiences working with her in the office, and at the Graduation Ceremony, she received a standing ovation for her vital role in putting the event together.

"As I go on to the next chapter of my life as a medical student, I would like the ODASIS staff to know that, through their guidance, my family members are given hope that their daughter and sister will achieve her goals," said Jen. "My parents moved to America as Nicaraguan war refugees to give me and my siblings a life they did not have. Although their dreams were not fulfilled, seeing their



daughter strive against all odds to have her own dreams realized is the greatest gift they can receive." Jennifer's cheer and positivity will be missed in the office, but we know that she will do great things at NJMS and beyond. We wish you all the best Jen!

Trailblazer for Minority Men in Medicine

Kevin Carolina, recent graduate of ODASIS class of 2022 with a long list of academic accolades, aspires to make changes to the way healthcare is distributed to disenfranchised populations. Understanding that communities of color don't have a trusting relationship with the healthcare system, Carolina wants to increase diversity among physician populations to combat those barriers.

He learned, from an AAMC report, that more black men applied to medical school in 1978 than in 2014. Although enrollment of minority students entering medical school is increasing, according to the AAMC, only 5 percent of doctors in the US identify as Black, and only 5.8 percent identify as Latinx. Carolina had already seen the effects of this disparity in his own community. "My grandfather thought he could deal with his diabetes without regularly seeing a doctor because the doctor wasn't someone who looked like him or he thought he could trust," said Carolina. "My barber felt the same and nearly died from COVID-19. He still refuses to get vaccinated." He knew that something needed to change.

With three of his peers, Carolina started Minority Men in Medicine at Rutgers, an organization dedicated to providing an academic and social support system to increase the number of minority men matriculating into medical school. Operating through the pandemic when student shadowing was halted, Carolina launched a series of virtual panels where various physicians and surgeons imparted words of wisdom so that students could still stay connected with physicians of color.

Carolina is taking the world by storm and has a bright future ahead of him as a trailblazer for other minority men

pursuing careers in healthcare. His perfect blend of professionalism and charisma as well as his proactive nature are a testament to that. "We believed that representation was important," said Carolina. "Seeing individuals who looked like us who were successful in medicine motivated us not to give up, despite the challenges we faced on our paths to becoming physicians. As a future physician, I am committed to improving the health outcomes through community engagement and facilitating trusting relationships between communities of color and the healthcare system."





Bond of Brotherhood

ODASIS, while certainly lauded for its excellent academic support and professional opportunities, is renowned for the strong network it establishes within and beyond the university. This is a network of like-minded individuals, many from underrepresented and disenfranchised backgrounds, who uplift one another through the scrupulous journey to health-allied schools from undergrad to beyond. Many life-long friendships are formed through the program, including the years-long bond between these three doctors.

Inspired by *The Pact*, a biography released in the very beginning of their ODASIS journey that detailed the success story of three doctors from Newark who achieved their goals to each become physicians, Dr. Oluseun Olufade, Dr. Gbolabo Sokunbi and Dr. Foluso Fakorede supported one another through their years in ODASIS, through the rigors of medical school, and through their individual careers as a sports medicine physician and professor of orthopedics, an orthopedic surgeon, and an interventional cardiologist and endovascular specialist, respectively.

Dr. Olufade credited ODASIS and its boisterous Director, Dr. Khan, with providing an environment that allowed him to surround himself with the right people, which ultimately led to the friendship the three cultivated. “We had similar goals and desires in professional capacities,” he said. “We also all came from similar backgrounds- we all happen to be of Nigerian descent and speak the same mother tongue- where we had high expectations set of what we had to accomplish, which made it easy for us to gravitate towards one another.”

Those similarities allowed for a measure of healthy competition to spring up between the close-knit trio. “That was our motivation to succeed, even when things were rough,” remarked Dr. Sokunbi. “We held each other accountable to take

advantage of the two biggest resources in ODASIS: structure and representation. Seeing people who looked like us succeed and hearing their talks when they returned to campus, we were motivated to do the same. We realized we could and would achieve the same, and that measure of healthy competition between us served as our fuel.”

Dr. Fakorede echoed the statement, stating that the mentorship and allyship cultivated through the program, particularly between the trio, was the way he could get through his own traumatic experience with his brother’s passing. “The people in your journey will not only inspire you but will be there when you struggle. They help you make your trauma your training for your next triumph. They empower you to go to the next dimension,” he said. “Medicine encompasses the power to heal and be humanistic. To overcome any adversity, having friends and determination and faith serves as the fortitude to continue.”

The most prominent aspect of ODASIS, one that goes beyond the excellent academic and pre-professional resources it provides, is the inherent community that is cultivated within the program. Through ups and downs, these three doctors have supported one another and held one another accountable to maintain the excellence they strive to achieve every day. They’ve been each other’s Best Man and groomsmen, and most recently, they all attended an award ceremony held by the NMA to celebrate Dr. Fakorede receiving the Physician of the Year award. This is a bond that will hold fast for life. Dr. Olufade captured the heart of their bond of brotherhood beautifully: “I think the ability to be able to celebrate all those milestones with people you’ve known for over 20 years, who have known that struggle as intimately as you, makes the experience that much richer.”

Summer Research Programs

Agustin Velasco

DLS-SURF, Rutgers, The State University of New Jersey



This past summer, I was a recipient of the 2022 DLS-SURF award granted to me by the Division of Life Sciences and generously funded by the MacMillan Foundation. Through the DLS-SURF fellowship, I conducted an investigation on the process of endocytic recycling under Dr. Barth D. Grant. The research I conducted

this past summer has tremendously enriched my education as a pre-medicine student with ambitions of pursuing a future MD program. I strongly believe in scientific literacy and engagement as an aspiring physician, which are life-long skills that I intend to continually develop so that I may carry them with me in my future practice of medicine.

My investigation focused on understanding the role of the protein Syndapin/SDPN-1 for which a body of evidence supports a role in endocytic recycling within the context of the *C. elegans* intestine (Gleason et al., 2016). The goal of my project was to expand upon previous findings from the Grant Lab about the binding of the PXF-1 partner protein to the SDPN-1 SH3 domain and its promotion of endocytic recycling through RAP-1 GTPase activity. To achieve this goal, I planned to tag the endogenous wild-type and mutant alleles [*sdpn-1 (pw33)* and *pxf-1 (pw34)*] of SDPN-1 and PXF-1 with GFP using CRISPR/Cas9 technology in *C. elegans*. Upon tagging the wild-type/mutant alleles for SDPN-1 and PXF-1, I intended to perform a western blot targeting GFP in order to determine whether the interaction-defective proteins are stable in-vivo. As the project currently stands, I have successfully tagged the endogenous wild-type *sdpn-1* and *pxf-1* alleles with GFP, and we are currently in progress of tagging the endogenous mutant alleles, *sdpn-1 (pw33)* and *pxf-1 (pw34)*, with GFP. I plan to continue working on my research as part of my Honors in Biology senior thesis this upcoming academic year.

James Rapley

NERA III, Rutgers NJMS



In the summer of 2022, I participated in the Northeast Regional Alliance (NERA) Level 3 program, which is hosted by Rutgers University and New Jersey Medical School. NERA 3 is a six week academic enrichment program that meets on Mondays, Wednesdays, and Fridays which aimed towards educating students

on statistical research analysis. I focused on research on hypertension, and analyzing the patients backgrounds and charts reinforced how important it is to maintain a healthy lifestyle. NERA also enlightened me on the health disparities that are apparent in society, and measures to maintain a healthy lifestyle

despite these obstacles. Not only was NERA 3 beneficial in terms of what was taught to the students, but we also had the opportunity to meet the dean of New Jersey Medical School, Dean George Heinrich, M.D., and the Assistant Dean of Admissions, Mercedes Rivero. They told us about what to expect during the medical school application process, and the students also had the privilege of touring New Jersey Medical School. Furthermore, NERA 3 presented an excellent opportunity to learn more about New Jersey Medical School and statistical research.

Maame-Afuah Ansah

NERA III, Rutgers NJMS



This past summer, I participated in the Northeast Regional Alliance (NERA) Level III Research Program with Dr. Steven Keller. NERA III was a 6-week public health research summer program for minority students in the Northeast.

The program consisted of weekly meetings 3 times a week, Monday,

Wednesday, and Friday from 10 AM - 12 PM. The main goal of our research project was to assess what proportion of medical records showed that doctors within the Newark Clinic are following CDC guidelines for obesity. We assessed this by using the CDC guidelines as markers as well as assessing if follow-up visits were recorded. A reliability test was performed to assess the consistency of the abstracting process. T-tests were also performed to determine statistical significance. At the end of our project, we concluded that at best only 14% of the population of obese and overweight patients within the Newark clinic were following the exercise guideline.

This experience was really rewarding because I learned a lot about analyzing data statistically, public speaking, and poster defense.

Silvia Juarez Rojas

DLS-SURF and Koury-Walker Scholarship, Rutgers, The State University of New Jersey



This summer, I participated in the DLS-SURF program, hosted by the Division of Life Science department, with my faculty mentor Dr. McLaughlin at Tumer Lab. Additionally, I was the only student to be also awarded the Koury-Walker Scholarship, which is a scholarship that funds research for first-generation college students. This

program was a fantastic opportunity as it allowed me to further understand and apply myself to scientific research; I will continue investigating this project during the 2022-2023 school year. Our project focused on investigating the possible participation of exosomes in the immune response of barley against the fungi

F.graminearum. Recent unpublished data using *Arabidopsis* exosomes indicates that plant exosomes negatively impact the fungal penetration of fungi on barley leaves. To confirm this, we wanted to focus on exosomes and *F.graminearum*'s infection on barley. Therefore, we assessed the impact of applying barley exosomes isolated by ultracentrifugation at 40,000g (P40) and 100,000g (P100) to barley tissue with GFP-tagged *F.graminearum*. Overall, our goal was to determine if treated exosomes impact the penetration and spread of *F.graminearum* in barley leaf tissue. Our results confirmed P40 as a stronger fungal penetration inhibitor than P100; however, we found the exosome treatments in some cases resulted in fungal infection promotion. For the future, we would like to investigate the contents of the isolated exosomes further as we suspect external proteins may be responsible for these promotion results. This project is significant because it may facilitate the creation of more methods to make more crops resistant to fungi, decreasing food insecurity for everyone.

Solomon Williams *W.M. Keck Center for Collaborative Neuroscience Summer Research Program*



This summer, I participated in the W.M. Keck Center for Collaborative Neuroscience Summer Research Program. Under the direction of Dr. Wise Young, we sought to demonstrate how inducing hypoxic ischemic encephalopathy in neonatal rats would result in significant damage and subsequent loss of neurons in the brain, retinal ganglion

cells, and spiral ganglion cells. We then hypothesized that intravenous injection of exosomes would stimulate neurogenesis in the brain, retinal ganglion cells, and spiral ganglion cells, specifically targeting the rats' cognitive, visual, and auditory capabilities. Following our surgical procedures to induce hypoxic ischemia and treat the neonatal rats with exosomes, we conducted a multitude of behavior tests as well as counted the neurons of the brain via histological procedures, comparing treatment and control groups with each respective variable. Our main goal during this research was to identify and analyze a potential treatment method for newborns experiencing hypoxic ischemia during embryonic development, as caused by a detrimental wrapping of the umbilical cord around the neck of the fetus during pregnancy. The purpose of this research is to imply that neurogenesis via exosome treatment can reverse the effects of the hypoxic ischemic encephalopathy, and thus neuronal damage.

During this 8 week program, on Monday-Thursday from 9:00am-12:00pm, we would receive extensive lectures from Dr. Wise Young as well as numerous other guest speakers, covering topics from spinal cord research and treatments to gene-regulating technologies. In the latter afternoon, we would directly engage in our research activities in the laboratory. Dr. Young's students were also taken on a trip to a rehabilitation center tailored to those with spinal cord injuries, Project Walk New Jersey. During this trip, we were able to witness presumed permanently paralyzed patients regaining their walking ability, contrary to the neuroscience dogma that walking after complete spinal cord injury is not possible. The overall experience of the summer program at the W.M. Keck Center served to enlighten us of the limitless possibilities when engaging in research, and how creativity with dedication as well as reasoning can guide one towards a valuable scientific career.

Research and Medicine



ODASIS alum Olisemeka Oputa graduated from Rutgers in 2021. Decorated with a host of academic accolades, Olise has been doing research on spinal cord injuries in the Abaira Lab under Dr. Victoria Abaira. The unique aspect of his research work is that he is funded by the National Institute of Health through a Diversity Fellowship, a prestigious honor.

As his first realistic and authentic research experience, Olise found that clinical research has allowed him to segue into academia, which has given him a unique perspective on the intersection between medicine and research. "I've realized there's a lot of innovation in medicine, and doctors are the driving force behind it," said Olise.

Through his research with Dr. Abaira, Olise studies mice in pre-injury and post-recovery phases of spinal cord injury with motion sequencing to track functional locomotor activity. The goal: to create a more objective computerized scale that hinders bias. The field of medicine on the whole is becoming increasingly

digitized with the introduction of more AI systems to make diagnoses. The problem, therein, lies with the fact that if data fed into an automated system is marred with historical racism and biases, the AI is a mirror of that. This is the driving force behind Olise's own objectives to increase diversity in medicine. "Diversity in research is so important to me," Olise remarked. "Machine learning is predicated on data, and if the data created is created by a select group of people, our digitized systems will be inherently biased."

"Olise has such an eloquent and forward-looking take on medicine," said mentor Dr. Abaira. "He understood right from the beginning the main questions to our research and its implications: what are the caveats, what type of data do we feed, how do our medical colleagues understand what this means. He's very confident in himself as a scientist and isn't afraid to ask questions and get at the root of things. Olise is a stellar student and so worthy of being recognized. He truly is the future of medicine and science, not just because he's the future of diversity, but also because of his perspective on medicine."

Women in S.T.E.M.

Science and Beauty



ODASIS alumna Gabriella Bahamondes has chosen to pursue a unique facet of STEM. She received her undergraduate degree in kinesiology, and subsequently completed her secondary

degree in biomedical sciences. It was during her masters education that Gabriella became fascinated with biology on a micro scale, namely with bacteria and viruses, which set the foundation for her career aspirations.

In tandem with her studies, Gabriella tested for bacteria growth and mold in various J&J consumer products as a microbiologist in their lab. Doing so, her curiosity in the various aspects of the production process was ignited, and she began doing research into various beauty product companies. Upon completion of her masters degree, Gabriella began working as a haircare and styling chemist for L'Oréal Research & Innovation. She applied her understanding of microorganisms to the process of formulations, testing and

comparing competitive products with various internal formulas.

Gabriella has since become a scientific liaison between the lab and marketing department for the U.S. haircare and styling team. Applying the hands-on laboratory experience she accumulated during her time as a chemist, she functions as an intermediary between the lab and the marketing department, taking the hard science procedures enacted in the lab and translating it to marketable concepts for the legal and marketing teams in corporate R&I. Gabriella is working directly where the magic happens. She is not only a connoisseur of science, but also a connoisseur of beauty, and its production in America.

Finding Your Path



The vast scope of the healthcare industry presents seemingly innumerable opportunities for what one may pursue upon graduation. It can be incredibly difficult to find your path, where you are meant to be. For Dr. Melissa Borrero, the path to her current specialty in family medicine with an integrative medicine slant was a winding one as she explored different settings and environments to find

what was right for her.

Dr. Borrero's experiences shadowing and then working in a hospital setting taught her that she didn't want to just have a one-and-done interaction with the patient. "My experiences showed me that I liked being involved in all aspects of my patients' lives. I found that I wanted to know more about them. I didn't just want to be their pain doctor." In family medicine, Dr. Borrero found the one-on-one interpersonal connection she was looking for.

Her own experiences with endometriosis, from not being accurately diagnosed while in medical school to not receiving adequate consideration from health insurance companies in later years, reinforced her choice to ultimately pursue family medicine. "Learning how to be a patient myself and how to understand my pain and my boundaries has made me more compassionate about people in pain," she explained. "I

understand and sympathize with their frustration when their questions aren't answered far better now."

Now, Dr. Borrero treats her training as the starting point and foundation but tries not to treat it as the end-all-be-all. Medical research is so innovative currently, leading Dr. Borrero to adopt a life-long-learner mindset to adapt with the exponentially growing knowledge base. "One thing I'm learning is that the more variety in things I know, the more I can meet my patients where they're at," she said. "Patients are looking for a lot more information now. They want to know that you aren't just talking rhetoric to them. Many patients are afraid of the potential side effects of western medicine, so I acknowledge this and offer other methods, like watching diets or tapping techniques on meridian points. My patients know they have a doctor in me that will do her best to give them an individualized plan."

Entrepreneurship, Education and Equity



Dr. Natasha Ramsey's journey through ODASIS first began with her participation in the high school programs. Working alongside her peers from New Brunswick High School and then at Rutgers, she worked hard to achieve her dreams of not only attaining her masters in public health, but also her M.D.

"Dr. Khan used to call me 'Earrings' because I had these huge bamboo earrings that I wore all the time," Dr. Ramsey reminisced fondly. "I was his

star student because I made use of every single resource available to me. They knew, every week, Tasha was coming to do practice problems. I remember after a while, I told him: Dr. Khan, you're going to remember my name. And he does! To this day, he and the staff and my peers from the program are like my family. They're the reason I've reached the success I have." Dr. Ramsey is now starting a new job in school health, working in a full-functioning clinic within a New York school system to deliver adolescent care directly to teens.

That success isn't solely confined to the obtaining of her two post-graduate degrees. Having always been interested in adolescent health and sexual education, Dr. Ramsey started a side-blog under the name 'Gorjus Doc', where she documented the struggles of underrepresented individuals as well as adolescent health issues. While it initially began as a side-business, once the pandemic hit, the business took off. "I started doing Instagram lives, creating

more content and creating more images featuring sex ed. Now, I create sex ed images for organizations and youth groups that uses gender-inclusive and culturally competent language, and the sex health community is asking for more." With business booming, she hopes to transition full-time to facilitating this content creation.

Dr. Ramsey sits in a unique position as an adolescent health specialist and black woman who creates her own content. As a successful woman paving the way for other underrepresented individuals, she says she is confident in her purpose. "Know your self-worth," she said when asked about what advice she would impart to the next generation of female healthcare professionals. "Don't use the metrics of other people to measure what you are capable of. Make sure what you are doing is feeding your soul and your passions and come correct. Once you tune out those outside voices, you will flourish."

Planning and Contingencies



The past two and a half years are a testament to the fact that we can never predict what the future may bring. And it's a frightening thing, to not know what may come. Oftentimes, we shy away from thinking about the possibilities of negative occurrences. But palliative care specialist

and ODASIS alumna, Dr. Huda Sayed, has advocated for us to begin making plans for potential negative situations in healthcare.

Conscious decision-making is key and thinking about these important questions while one is still healthy will allow for us to make decision and plans, rather than leaving it up-to-chance in a time of dire need. "There are so many things we can do for patients," Dr. Sayed said. "We live in a country where we have amazing technology. But sometimes, we really have to be careful. Are we doing it *for* the patient, or are we doing it *to* the patient?"

To prevent leaving decisions entirely in the hands of physicians and healthcare professionals when we may have our own desires, Dr. Sayed says that we need to start confronting the possibilities to prepare for situations that may arise. "You need to start thinking about what

you want and don't want should you become ill or incapacitated. Next, create an advance directive, a document spelling out in writing what kind of treatment you want. As part of the document, you can choose a health care proxy to make medical decisions for you if you cannot speak for yourself."

Being able to rely on trustworthy proxies who share your own views and values will allow for everyone to agree as a treatment commences, says Dr. Sayed. "Too often, families are left to make difficult end-of-life decisions, without knowing what their loved one would want because they've never talked about it. Making your wishes clear would free your loved ones from that burden. Yes, it's not a great topic to talk about. But you do it once, tell them what your wishes are. Be as specific as you can be. Then you can put it away."



Congratulations to the Class of 2022

RUTGERS

New Jersey Medical School

Ciana Mayfield
Autumn Mailay Holmes
Carlos Coronado
Alea Charles
Kaycie Elifani
Kimberly Cartagena
Ludvinna Bazile

Matthew Cedarstrand
Yaxel Levin
Ana Vasquez
Sope Fofah
Vinne Vaca
Jennifer Hernandez
Simona Alomary

RUTGERS

Robert Wood Johnson
Medical School

Ema Azuonwu
Rachel Lamprey
Viktor Diaz
Gina Vargas

RUTGERS

School of Public Health

Kyna Eagar

RUTGERS

School of Nursing

Arsema Amare



**Penn
Dental Medicine**

Madeline Dwamena



**Perelman
School of Medicine**
UNIVERSITY OF PENNSYLVANIA

Julian McDonald



**Sidney Kimmel
Medical College**
at Thomas Jefferson University

Kevin Carolina
Chioma Nwanonyiri
Emmanuel Adekanye
Kezia Van Lare
Max Nunez



**NYU | COLLEGE
OF DENTISTRY**

Hinata Sarwar (EOF)



**Cooper Medical School
of Rowan University**

Jordan Konrad



ROWAN UNIVERSITY

**School of
Osteopathic Medicine**

Michael Acevedo
Anelia Rampersad



School of Medicine
TEMPLE UNIVERSITY®

Cornelius Damilola Aladeniyi
Serah Sannoh

**SALUS
UNIVERSITY**

Pennsylvania College of Optometry

Mariana Garcia

**MOREHOUSE
SCHOOL OF MEDICINE**
Physician Assistant Studies

Adam Khanu



Alumni Graduating in 2022

RUTGERS

Robert Wood Johnson
Medical School

Stephanie Chisom, M.D.
Jefferson Ebube, M.D.
Samantha Elfanagely-Gulfety, M.D.
Karen Ninotchka Torres-Soto, M.D.
Brian Anyanwu, M.D.
Blessing Ajayi, M.D.

RUTGERS

New Jersey Medical School

Nitish Sharma, M.D. (EOF)
Mahir Sufian, M.D.
Daniel Cabrera, M.D.
Robin Codjoe, M.D.
Irene Martinez, M.D.
Fauziat Tolu Ugoanusi, M.D.
Tolulope Nurudeen, M.D.
Pablo Ortiz, M.D. (EOF)
Darius White, M.D.
Jillian Paredes, M.D.

RUTGERS

School of Health Professions

Elysha Destiny Bembury, D.P.T (EOF)
Towhid Ahmed, P.A

RUTGERS

School of Nursing

Ruben Cruz, R.N (EOF)
Stephany Caicedo, R.N



School of Medicine
TEMPLE UNIVERSITY*

Paul Michael Gallina Jr., M.D.
Tochi Unegbu-Ogbonna, M.D.
Juan Cerazo, M.D. (EOF)



School of
Podiatric Medicine
TEMPLE UNIVERSITY*

Amanda Gallagher, D.P.M.
Jinal Parikh, D.P.M. (EOF)



Kornberg
School of Dentistry
TEMPLE UNIVERSITY*

Michael Vlassakis, D.M.D/D.D.S (EOF)



ROWAN UNIVERSITY

School of
Osteopathic Medicine

Caroline Paz, D.O
Eunice Saint Victor, D.O.
Aslihan Pelin Sahin, D.O.



Cooper Medical School
of Rowan University

Kathleen Cruz, M.D.



Rowan University

GRADUATE SCHOOL OF
BIOMEDICAL SCIENCES

Jennifer Nunez, M.B.S (EOF)
Alexis Nelson, M.B.S



LIBERTY
UNIVERSITY
COLLEGE OF OSTEOPATHIC
MEDICINE

Mariam Kamel, D.O.



Princess Chisom, D.O.



St. George's University
SCHOOL OF MEDICINE
Grenada, West Indies

Tim Oyeniran, M.D.



MEHARRY
MEDICAL COLLEGE

George Asham, M.D.



PHILADELPHIA
COLLEGE OF
OSTEOPATHIC
MEDICINE

Mina Girgis, D.O.
Cassandra Yeboah, D.O.
Jessica Bedele, D.O.



Stony Brook
School of Dental Medicine

Mojtaba Wali, D.M.D/D.D.S



Janet Isaiah, D.P.M.(EOF)



Sidney Kimmel
Medical College.
at Thomas Jefferson University

Oluwatoni Okuboyejo, M.D.



Ana Christina Reyes, D.O.



Jacobs School of Medicine
and Biomedical Sciences
University at Buffalo

Arthur Gribachov, M.D.



Ruth Lavanche, J.D.



Hackensack Meridian
School of Medicine

Nico Balbi, M.D.

ODASIS

Office for Diversity and Academic Success in the Sciences



STP Program

While most high school graduates were in the midst of celebrating their recent graduations, 31 highly qualified and carefully selected students participated in the coveted Strategic Plan (STP) program. STP is made possible through the generosity of Rutgers University and ODASIS alumni. The program provides incoming first year students interested in pursuing careers in the sciences with a strong foundation and exposure to their core fall courses. After two years of offering the program remotely, ODASIS was very pleased to be able to offer the program completely in person for the 2022 STP cohort. The students spent five weeks immersed in learning the essential skills, mindsets, and foundational topics of Calculus, General Chemistry, and Expository Writing in preparation for their fall courses. In addition to their academic experiences in the classroom, the STP scholars

attended workshops on study strategies with the Learning Resource Center, health careers from the Health Professions Office, and academic advice from a first year SAS dean. Finally, they benefited from a chemistry lab demonstration, a blood pressure/introduction to medicine workshop from alumni, and daily collaborative study hall sessions led by recent alumni every morning and evening. Our Strategic Plan scholars began their summer with great enthusiasm as new members of the Rutgers community and invested a lot of energy into learning how to gauge their efforts to the rigor of the university curriculum. They are well on their way to starting their academic careers with ODASIS and discovering how they can become contributors to the university and future science communities.

RUTGERS

School of Arts and Sciences

Office for Diversity and Academic Success in the Sciences
Division of Life Sciences
Rutgers University–New Brunswick
604 Allison Road
Nelson Labs, Room A201
Piscataway, NJ 08854-8000