OWNING IT!
NJIT Champions Entrepreneurship

UNDERGRADUATE RESEARCHERS
EXPLORE THE EXOTIC AND RETHINK THE FAMILIAR

2020 HONOR ROLL
A MESSAGE FROM NJIT PRESIDENT JOEL S. BLOOM

As we begin the summer of 2021 and COVID-19 vaccinations are readily available, we start our journey back to a sense of normalcy. Come this fall, we look forward to our students and professors being back in classrooms at full capacity and to our campus community returning to its pre-pandemic vibrancy, while we remain vigilant in taking the appropriate steps to keep our community safe.

During this challenging time, our students have not just persisted, but have continued to realize great achievements as learners, inventive entrepreneurs and pioneering researchers. This issue’s cover story takes a look at entrepreneurship at NJIT, which is thriving through a wealth of programs that include the New Jersey Innovation Acceleration Center, the National Science Foundation I-Corps Site at NJIT, our VentureLink small-business incubator and many others. In addition to entrepreneurial programs, NJIT offers 25 credit-bearing entrepreneurship courses, as well as both major and minor entrepreneurship degrees through the university’s Martin Tuchman School of Management. During the past two years, startups by our students and alumni have raised over $1 million in new venture funding. Also noteworthy is that, for the second year in a row, NJIT has been cited by The Princeton Review as being among the best schools in the nation for students aspiring to become entrepreneurs. We are ranked No. 43 among the Top 50 Undergraduate Schools for Entrepreneurship Studies for 2021, and are the only university in New Jersey to achieve this recognition.

In the labs, NJIT Highlanders are making news in equal measure. This summer, more than 100 undergraduate researchers are on campus, supported by our Provost Undergraduate Research and Innovation (URI) Summer Fellowship program and Honors Summer Research Institute, as well as outside agencies such as NASA, the National Science Foundation and the Ronald E. McNair Post-baccalaureate Achievement Program. These students are investigating a wide range of important subjects, from novel cancer treatments using platinum nanoparticles to new design collaborations among campus architects and Newark stakeholders. As our senior vice provost and URI founder, Atam Dhawan, noted, these studies “not only address societal challenges with new technologies, but probe the social context and the interactions necessary for their success.”

In addition, with this being our annual Honor Roll issue, I extend my deep gratitude to all our donors for their generous support of our university. Their gifts make the outcomes I have noted above possible and contribute greatly to the NJIT community, enabling us to prepare the scientists, engineers, technologists and entrepreneurs of tomorrow.

I welcome your feedback and hope you enjoy reading NJIT Magazine!
STUDENTS PLANNED A BUSINESS ON CAMPUS

Students in a new NJIT course that delivered the experience of planning a potential business on campus appreciated the latitude that instructors gave them to make decisions.

“They guided you and responded to specific questions, but they didn’t tell you exactly what to do and how,” said Marina Arrese ’21, a business major on a team managing finance and information systems for the class project. “We had to step back, view the big-picture objectives and develop our own structure and roadmap for achieving them while collaborating with other departments,” added Charis Hwang ’22, another business major on the team.

The course, in which students from NJIT’s Martin Tuchman School of Business major on the team.

Management (MTSM), Hillier College of Architecture and Design (HCAD) and Newark College of Engineering developed a business plan for a coffee shop that could be created in a shipping container, exemplifies the type of hands-on experiences that students crave, namely those where they can apply classroom lessons in real-world scenarios. Leading the class was Steve Rubin, former president and CEO of ITS ConGlobal and a member of the MTSM Board of Advisors, with support from David Brothers, coordinator of interior design and a senior university lecturer at HCAD, and MTSM Senior University Lecturer Melodi Gubault.

Student rendering of what the coffee shop could look like.

“The professors were very skilled in what they do and they incorporated what would happen in the real world,” said Anh Ly ’21, an interior design major. Participants gained personal confidence that will help them achieve long-term goals — be it becoming an imagineer at The Walt Disney Co., a business consultant or, in the case of Arrese, an entrepreneur. That’s where she aims to land, after working in finance or consulting at a large, established company. Now she knows exactly what it takes.

its goal of enrolling more Hispanic and Latinx students and achieve its objective of becoming a Hispanic-serving institution. The 11-person council — which features leaders in business and community advocacy, including seven alumni — will advise, counsel and support NJIT’s drive to increase its percentage of Hispanic and Latinx undergraduates from 20% to 25% by 2025 and thus qualify to earn the federal designation of being Hispanic-serving. In addition, the HLLC will seek to deepen relationships with Hispanic and Latinx alumni, businesses and organizations.

Council members also will serve as ambassadors and advocates for NJIT, mentor STEM-oriented Hispanic and Latinx students in high schools and community colleges as an introduction to the university, and help secure gifts and grants to aid enrollment and engagement efforts.

“Given the socially and economically transformative impact of pursuing and completing a STEM-focused college degree, enrolling more Hispanic and Latinx students at NJIT will help our state and nation address long-standing social and economic inequalities,” said NJIT President Joel S. Bloom.

The HLLC arrives amid several NJIT initiatives designed to heighten diversity and the visibility of historically underserved minorities on campus. The university’s Diversity, Equity and Inclusion Task Force is leading a groundbreaking and comprehensive survey of the campus community to develop a long-term diversity and inclusion action plan. Also, NJIT’s Hillier College of Architecture and Design is moving to revite its chapter of the National Organization of Minority Architecture Students.

NEW COUNCIL TO FUEL ENROLLMENT OF HISPANIC AND LATINX STUDENTS

NJIT has launched a Hispanic and Latinx Leadership Council (HLLC) to propel

PARTNERSHIP TO CREATE TECH INSTITUTE IN NEW JERSEY

The State of New Jersey, Ben-Gurion University of the Negev (BGU) and NJIT are partnering to create a world-class Institute for Future Technologies in New Jersey.

“NJIT is one of the state’s premier STEM-focused universities, and BGU is one of the driving forces behind the success of Israel’s technology economy,” said Gov. Phil Murphy. “By joining together in this groundbreaking venture, NJIT and BGU will combine their expertise and track records in technological research and development to help strengthen the economic opportunity and tech leadership that I have long envisioned for our state.”

The partnership aims to deliver bespoke cyber technologies, civil and environmental engineering education, applied research and development, and support for innovation and entrepreneurship through technological commercialization efforts.

The institute, operating out of NJIT’s satellite location in Jersey City and main campus in Newark, represents the university’s latest contribution to expanding the tech sector in the tri-state region, where it is the largest generator of tech talent with an annual economic impact of $2.8 billion on New Jersey alone. BGU, for its part, gains entry into the U.S. higher education system and will move to share its valuable research and insights to students outside of Israel.

DIGITAL DESIGNER EARNS FULBRIGHT TO HONE HER CRAFT IN CANADA

Kaylin Wittmeyer is a digital designer who majored in digital design studies at NJIT. She was awarded an award from the Fulbright U.S. Student Program to hone her animation and storytelling skills at Sheridan College, where she plans to major in animation and complete a post-graduate degree in feature animation.

Kaylin Wittmeyer ’21, the university’s first candidate for the Fulbright Program. Students are selected in an open, merit-based competition that considers leadership potential, academic achievement and record of service.

Another Dorman Scholar, Joseph Porcelli ’22, earned the Fulbright Canada –MITACS Globalink scholarship (see page 16). This Fulbright places undergraduates in Canadian laboratories for 10-12 weeks in the summer.

From left: President Joel S. Bloom, Gov. Phil Murphy and BGU President Danit Carmozzi at the partnership signing.

From left: President Joel S. Bloom, Gov. Phil Murphy and BGU President Danit Carmozzi at the partnership signing.
AMERICAN ASTRONOMICAL SOCIETY HONORS PHYSICS PROFESSOR

Philip Goode, distinguished research professor of physics at NJIT’s Center for Solar-Terrestrial Research, has been named a 2021 Fellow of the American Astronomical Society (AAS) — the leading organization of professional astronomers in North America. The fellowship is bestowed annually on select AAS members for extraordinary contributions toward enhancing and sharing humanity’s scientific understanding of the universe via “original research and publication, innovative contributions to astronomical techniques or instrumentation, significant contributions to education and public outreach and noteworthy service to astronomy and to the Society itself.” Goode was named for his “pioneering work in helioseismology and for leadership in university-based solar physics.”

ABSTRACTS

First-Year Guard Makes All-Rookie Team

Lyzi Litwinko, a first-year guard on NJIT’s Women’s Basketball team, earned a place on the 2021 America East Conference All-Rookie team. Litwinko, a science, technology and society major, was named conference Rookie of the Week five times, as she led the team in rebounds per game (6.6) and assists per game (3.1), and became its third-leading scorer at 8.6 points a game. Conference-wide, she ranked fourth in assists and seventh in rebounds. Season highlights included seven double-doubles in points and rebounds and a high of 14 points against both the University of Vermont and University of New Hampshire (UNH). Also, her tally of 13 rebounds against the University of Hartford in January was a personal best.

Litwinko played all 14 games of the 2020-21 season, dishing out at least 1 assist in every contest with a season-best 6 assists against both UMass Lowell and UNH. The team advanced to the quarterfinals of the 2021 Hercules Tires America East Women’s Basketball Playoffs before losing to UMass Lowell, 72-52.

Before the season, Coach Mike Lane described Litwinko, a star at Berlin (Conn.) High School, as “a strong, clever point guard who is a creative scorer, has exceptional court vision and rebounds from her position very well.”

REMEMBERING HALL OF FAMER WITH AN ‘INDOMITABLE SPIRIT’

NJIT fondly remembered soccer star Hernan “Chico” Borja ’81, an All-American who went on to play for the New York Cosmos and the U.S. Men’s National Team, after he died of cancer last year. His exploits earned him an invite to the 1984 Olympics — and three teams in the Major Indoor Soccer League. He entered the NJIT Athletics Hall of Fame in 1986.

with an indomitable spirit.”

Hernan was devoted to his parents, wife and family and friends, and had a smile and laugh that were infectious.”

As a Highlander, Borja set records for most goals in a career (65), season (25) and game (6) and most points in a season (62) and game (12), and tied for most assists in a career (26). As a senior, he became NJIT’s first All-American after scoring 25 goals in 16 games.

His exploits earned him an invite to the 1983 Senior Bowl — at the urging of Coach Simon — even though NJIT then competed in Division III and the bowl showcased D-I stars. As the only D-III player on the field, Borja recorded a goal and an assist. Days later, the Cosmos drafted him, adding him to a roster that included international stars like Giorgio Chinaglia.

Borja, a native of Quito, Ecuador, later played for the U.S. National Team — including at the 1994 Olympics — and three teams in the Major Indoor Soccer League. He entered the NJIT Athletics Hall of Fame in 1986.
STANLEY M. BARAUASKAS ’61 LAUNCHES THE EDUCATION OF FUTURE ENGINEERS

SPACE TRAVEL WAS BOTH THE STUFF OF FANTASY AND A NATIONAL IMPERATIVE when Stanley Barauskas ’61 was a boy in Jersey City. But by the time he was ready to graduate from high school, Stan was sure that an engineering degree would bring him closer to a role in the country’s space program.

The 2011 NJIT Alumni Achievement Award recipient might not have completed his degree had it not been for the availability of a financially affordable education. “NCE had an excellent reputation as a technical college,” he continues, “and the cost was well within my budget.”

Upon completing his degree at NJIT, Stan moved to California to begin a 50-year career in the aerospace industry that included groundbreaking work on the Apollo and Skylab missions, as well as the Space Shuttle program. In acknowledgment of his contributions to space flight, Stan was recognized by NASA as a Manned Flight Awareness Honoree. It is the agency’s highest tribute to professionals who support the human presence in space.

Now retired, Stan is focusing on what he can to do support the place where he got his start. To assist other talented and hardworking students, Stan has established the Stanley M. Barauskas ’61 and Family Scholarship at NJIT with a commitment through his estate plans.

“I feel that any success I had in my chosen career I owe to the excellent training I received at NCE,” he says. “I wish to pay back the school that provided me with the knowledge required to pursue a career in rocket science and space travel that I thoroughly enjoyed for all of my 50 years of work.”

To learn more about Stan and the legacy he has created at NJIT, please visit “Donor Stories” at njit.giftplans.org.

For further information on the 1881 Society or to discuss leaving a legacy at NJIT through your estate plans, please contact:
Beth S. Kornstein
Associate Vice President, Planned Giving
973-596-8548
elizabeth.s.kornstein@njit.edu • njit.giftplans.org

Your legacy begins today.
At the corner of Warren and Lock Streets in Newark, the wheels of entrepreneurship are turning. There resides VentureLink, the largest community-based small-business incubator in New Jersey, dubbed the “physical home of entrepreneurship at NJIT.” More than 50 small businesses have offices at the facility, and some 30 student-entrepreneurs use its flexible desk space. All benefit from regular programming that includes a workshop series on how to start and build a company, mentoring by seasoned entrepreneurs and a variety of networking events for founders-in-residence.
FOR THE SECOND YEAR IN A ROW, NJIT HAS BEEN CITED BY THE PRINCETON REVIEW AS BEING AMONG THE BEST SCHOOLS IN THE NATION FOR STUDENTS ASPIRING TO BECOME ENTREPRENEURS.

VentureLink is but one of a wealth of offerings at NJIT that promote innovation and entrepreneurship. "As New Jersey’s only public polytechnic university, and as an R1 institution (the Carnegie Classification for ‘Very High Research Activity’), NJIT is uniquely qualified to promote technological innovation with societal significance and market potential. The Princeton Review ranking acknowledges NJIT’s entrepreneurship education programs and investment in student and community entrepreneurship," remarked Cesar Bandera, associate professor of entrepreneurship at MTSM, who helps administer the National Science Foundation (NSF) I-Corps Site at NJIT and the award-winning Tech Venture Support Program, part of MTSM’s entrepreneurship curriculum. Bandera’s own startup, Cell Podium, recently put New Jersey for the first time on the National Institutes of Health’s Small Business Innovation Research (SBIR) map of startup successes; the company, which provides mobile solutions for public health, was launched at VentureLink with the participation of many NJIT students.

IMPLEMENTING IDEAS
A lot of aspiring entrepreneurs have advanced their commercial objectives by participating in the New Business Model Competition (NBMC), sponsored by the New Jersey Innovation Acceleration Center (NJIAC) at NJIT. LeShannon Wright knows firsthand the impact such a contest can have. She was stunned after learning she placed first among student competitors in the 2019 NBMC — this after making her venture idea Turning Tulips, part feminine hygiene subscription service, part personalized self-care and mentoring, for tweens and beyond, and was inspired by a personal health crisis. At the NBMC, Turning Tulips was launched at VentureLink with the mission to help innovators accelerate their time to market and revenue. The NJIAC partners with VentureLink to provide training and resources, and with works with students and faculty at NJIT and entrepreneurs throughout Newark and northern New Jersey.

ENTRY INTO ENTREPRENEURSHIP AT NJIT: A SAMPLING OF OFFERINGS

NJIT-ORS OFFICE OF RESEARCH
Together with VentureLink, works with NJIT researchers to help bring real-world solutions to the marketplace.

VENTURELINK
The largest community-based small business incubator in New Jersey, with 110,000 square feet of space that features a coworking floor, private office floors and a wet lab and sciences floor. VentureLink provides budding entrepreneurs, including NJIT students with educational workshops, professional networking, mentoring programs, office amenities and more.

MTSM INNOVATION & ENTREPRENEURSHIP (I&E) CLUSTER
Teaches the skills to identify business opportunities and commercialize technology, whether through the creation of a new venture or from inside an established corporation. MTSM offers grants; over 80% of recent teams have been led by female and/or underrepresented NJIT students whose B.S. is outside MTSM can obtain a minor in I&E.

OTHER SCHOOL COURSES Include entrepreneurship-focused courses at Ying Wu College of Computing, Newark College of Engineering and Hiller College of Architecture, Engineering and Commerce. Also off-curricular activities are offered through NJIT’s Undergraduate Programs.

ENTREPRENEURS’ SOCIETY
Student club for undergraduate and graduate students across the university who are interested in innovation and commercialization of technology.

LeShannon Wright won the NBMC’s 2019 student track for her business, Turning Tulips, part feminine hygiene subscription service, part personalized self-care and mentoring, for tweens and beyond, and was inspired by a personal health crisis. At the NBMC, it garnered her a Tommy Award (named in honor of Thomas Edison), a $10,000 Innovation Accelerator Fellowship and the opportunity to participate in the Summer Lean Startup Accelerator this past year.

In that moment it didn’t register that I had won at all. In fact, I was stuck in a contactless dining and payment business, GlydeApp Inc, which was recently accepted into the Village Global accelerator program that comes with a $150,000 investment. He and his Glyde teammates — fellow Highlanders Dev Acharya ’21 (information technology), Mayank Vadlamani ’23 (computer science, ADHC) and Maanav Patel ’22 (economics, now at University of Pennsylvania), and Ekavya Patel ’19 (computer science, Rutgers University-New Brunswick) — have taken advantage of everything VentureLink has to offer entrepreneurs.

“We came from knowing nothing about business to knowing as much as I need to do to my day to day, between legal, accounting, doing pitches, getting money in from investors, things of that nature,” said Peshori of his VentureLink experience, adding, “Getting WIG’s guidance was the best part, as he had gone through all the motions of running a startup that we were facing and helped us at many pivotal times.”
Kothari also participated last year in the inaugural Highlander Foundry, VentureLink’s eight-week summer incubator program for student entrepreneurs, as did fellow Dorman Scholar Parth Agrawal ’21, who studied biomedical engineering. There, Agrawal continued building The CommonHealth Project, an initiative he implemented with other NJIT students to produce face shields during the pandemic. With application support from the VentureLink team, he was recently selected as a Venture for America Fellow.

ENTREPRENEURIAL ECOSYSTEM
Like many universities across the country, NJIT is helping to commercialize the technological innovations of its faculty and students, as well as outside startups. Simon Nyens, vice president and chief commercial officer at NJIT, and CEO of NJII, feels firmly that universities need to be more corporate-friendly in order to fully embrace faculty, student and external entrepreneurs early in their development processes. Otherwise, revolutionary research and trailblazing technologies may very well remain in labs. One of the reasons NJIT exists, said Nyens, “is to do great research, but (b) to get that research out for the benefit of society as a whole. We are promoting an entrepreneurial ecosystem within the university.”

Being proactive is key to mining what he said are enormous greenfields of entrepreneurial potential, especially on college campuses. What is typically needed by those looking to take the leap with their innovations are professionals to assist them in navigating business waters. And even the most savvy may be unable to access the necessary financial support or acquire licensing, often a difficult mountain to climb for small-business entrepreneurs.

In 2018, Tara Alvarez, NJIT professor of biomedical engineering and founder/director of the university’s Vision and Neural Engineering Laboratory, John Vito d’Antonio-Bertagnolli ’16, ’17 (biomedical engineering) and Chang Yaramothu ’13, ’14, ’17 (biomedical engineering) and now assistant professor of applied engineering and technology, were recognized at the Augmented World Expo Europe for their vision therapy device, VERVE (Virtual Rye Rotation Vision Exercises), which has the potential as a biomarker for concussion. Despite the international accolade, as well as their establishing OculoMotor Technologies (OMT), a company with VERVE as its centerpiece, getting the device out of the lab and into the health care marketplace was proving to be a mighty challenge.

Enter NJIT, which helped guide OMT along the pathway to entrepreneurship — a route that included NSF 1- Corps training at NJIT. Thus far, 25 NJIT faculty/student/mentor teams including OMT have gone on to win $50,000 NSF 1-Corps Grants, and over 30 others have won follow-on funding from foundations, angel investors and venture capital firms. “These mechanisms can only be applied if you have a university-company relationship,” explained Alvarez, OMT’s chief scientific officer. “So that’s another big reason as to why NJIT and the startup are a very good collaboration.”

“What it really comes down to is the thumbs-up that we get from NJIT,” noted Yaramothu, chief technology officer. “Here’s a reputable university that’s saying ‘this is a great technology, we believe in this team, they are going to succeed.’ And that also brings other venture capitalists [to invest in us]. That’s made a huge difference." OMT CEO d’Antonio-Bertagnolli shared that, with NJIT’s support, the company, which has an office at VentureLink, has since completed a $250,000 NSF SBIR Phase I award, received a $1 million NSF SBIR Phase II award and employed eight NJIT undergraduates and graduate students as interns, converting some to full-time employees.

For its part, NJIT has facilitated other businesses and technologies: a home-based telerehabilitation system for stroke recovery, a synthetic bone-graft substitute promising improved outcomes for challenging bone fractures, and protein-based therapeutic strategies, among them.

Simply put, NJIT’s approach to nurturing startups is all about enabling, by facilitating a passage to entrepreneurship — a route that included NSF 1-Corps training at NJIT. Thus far, 25 NJIT faculty/student/mentor teams including OMT have gone on to win $50,000 NSF 1-Corps Grants, and over 30 others have won follow-on funding from foundations, angel investors and venture capital firms. “These mechanisms can only be applied if you have a university-company relationship,” explained Alvarez, OMT’s chief scientific officer. “So that’s another big reason as to why NJIT and the startup are a very good collaboration.”

“What it really comes down to is the thumbs-up that we get from NJIT,” noted Yaramothu, chief technology officer. “Here’s a reputable university that’s saying ‘this is a great technology, we believe in this team, they are going to succeed.’ And that also brings other venture capitalists [to invest in us]. That’s made a huge difference." OMT CEO d’Antonio-Bertagnolli shared that, with NJIT’s support, the company, which has an office at VentureLink, has since completed a $250,000 NSF SBIR Phase I award, received a $1 million NSF SBIR Phase II award and employed eight NJIT undergraduates and graduate students as interns, converting some to full-time employees.

For its part, NJIT has facilitated other businesses and technologies: a home-based telerehabilitation system for stroke recovery, a synthetic bone-graft substitute promising improved outcomes for challenging bone fractures, and protein-based therapeutic strategies, among them.

Simply put, NJIT’s approach to nurturing startups is all about enabling, by facilitating a passage to entrepreneurship — a route that included NSF 1-Corps training at NJIT. Thus far, 25 NJIT faculty/student/mentor teams including OMT have gone on to win $50,000 NSF 1-Corps Grants, and over 30 others have won follow-on funding from foundations, angel investors and venture capital firms. “These mechanisms can only be applied if you have a university-company relationship,” explained Alvarez, OMT’s chief scientific officer. "So that's another big reason as to why NJIT and the startup are a very good collaboration."
Undergraduate Researchers

By Tracey L. Regan

In pursuit of the ghostly subatomic particles known as neutrinos, novel cancer treatments using platinum nanoparticles, and new design collaborations among campus architects and Newark stakeholders, NJIT undergraduates are flocking back to research labs this summer. Fifty students won $3,000 summer research stipends from the Provost Undergraduate Research and Innovation (URI) Summer Fellowship program, others are taking part in Albert Dorman Honors College’s Honors Summer Research Institute (HSRI), and dozens more secured backing from outside agencies such as NASA, the National Science Foundation and the Ronald E. McNair Post-baccalaureate Achievement Program. In all, more than 100 students will return to campus shortly after graduation to ensconce themselves in their mentors’ labs.

Atam Dhawan, senior vice provost for research and founder of the URI program, marveled at the maturity and scope of this year’s projects, many of them conceived during the pandemic lockdown. “In the midst of unprecedented challenges, these student researchers stayed so focused,” he remarked. “In the 14 years since the program was founded, these are the best proposals the URI Industrial Advisory Board reviewers have seen so far. They not only address societal challenges with new technologies, but probe the social context and the interactions necessary for their success.”

Undergraduate Sanyal, who volunteered as a hospital medical scribe in the early days of the pandemic, is now researching antiviral treatments in a drug discovery lab.

AN UNDERGRADUATE’S EXTRAORDINARY IMMERSION IN AN UNFOLDING PANDEMIC

Few undergraduates—or indeed, citizens in general—can claim a more intense, multi-angled view of the COVID-19 pandemic than Sreya Sanyal ’22.

A medical scribe at University Hospital in Newark from April 2019 through July 2020, she watched firsthand as health care providers and their patients adapted in real time to the fearsome unknown. Lending another perspective, a class she took on the AIDS epidemic with historian Stephen Pemberton tracked the trajectory of public health policy, politics and therapeutic advances as an earlier virus wreaked havoc worldwide.

This summer, backed by funds from a Provost Summer Research Fellowship, Sanyal is working in Vivek Kumar’s Biomaterial Drug Development, Discovery and Delivery Laboratory on a cost-effective antiviral therapy to bridge the gap between still-spreading infections and the uneven vaccine rollout. Their strategy relies on a self-assembling peptide, a unique therapy delivery mechanism developed in Kumar’s lab, that binds to the virus’s spike protein, preventing it from attaching to a receptor in lung cells and targeting it for immune destruction.

“I plan to characterize the formulation through various mechanistic studies, then test the dosage toxicity and, finally, evaluate the drug’s cellular efficacy,” explained Sanyal, a dual major in biology and history, Dorman Scholar, 2021 Goldwater Scholar and 2020 HSRI participant.

A veteran in Kumar’s lab with prior clinical studies under her belt and an avid interest in translational science, Sanyal also plays a role in introducing new undergraduates to the research and helping them carve out a niche. She noted, “Building a collaborative team is one of the real pleasures of working in a lab.”
D ubbed ghost particles, trillions of neutrinos continually flit through the human body unaltered and unobserved, leaving no trace. Produced in the nuclear fusion of stars, fission in mankind reactions and radioactive decay on Earth, their role in the universe remains mysterious.

Backed by a Fulbright Canada-MITACS Globalink scholarship, Joseph Torsiello ’22 is spending his summer stalking these chargeless, nearly massless subatomic specks with a research team at McGill University in Montreal. More specifically, he is examining Xenon decay in what’s called a Xenon time-projection chamber detector to determine what particles are in fact released. I’m fascinated by materials that are exotic and yet all around us. I also wonder if there is a use for neutrinos in human applications," added Torsiello, who is planning a career in research, but still deciding among three areas that interest him: particle physics, astrophysics and materials science. In the study of neutrinos, the three disciplines converge:

"I’m very excited to be part of this team of researchers and graduate students at McGill and learning how to be a better researcher myself."
Offer your support to one or more of these NJIT teams with a gift today, and make an immediate impact!

Consider a donation in support of one of these student-led initiatives or to the Highlander Student Emergency Fund.

funders4njit.njit.edu

Thank you for your generous support during what has been an unprecedented and very challenging 12 months.

Dear NJIT Alumni and Friends:

It is my great pleasure to share with you the 2020 edition of NJIT’s annual Honor Roll of Donors. On behalf of the entire Highlander nation, and especially our hardworking students, I thank you for your generous support.

Last year, 5,390 alumni, friends, and corporate and foundation partners collectively contributed $13.6 million to the university. These generous philanthropic investments contributed to the development of STEM-focused, career-relevant curricula, such as the new major in FinTech in our Martin Tuchman School of Management. They supported the renewal of the spaces in which our students learn, study, and conduct research, including the spectacular new Weston Alumni Lecture Hall in Hillier College of Architecture and Design and the chemistry and motion-capture research facilities in the Life Sciences and Engineering Center. They funded research that is pushing the frontiers of knowledge and improving human lives. And — through the establishment of 37 new scholarships and fellowships, as well as more than $175,000 in gifts to the Highlander Student Emergency Fund — they helped to keep an NJIT education financially affordable for all deserving students and their families.

As I sat down to write my letter for last year’s Honor Roll issue of NJIT Magazine, I was faced mostly with the unknown. The interlocking nature of the COVID-19 pandemic was not yet understood, nor was its potential impact on the U.S. and global economy. Perhaps just as important, the extent of the financial hardship that would be experienced by NJIT’s students and their families was still far from clear, as was what their needs would mean for our university.

At the time, I wrote that “our university will not just survive but continue to flourish — and it will flourish in large part because of the long list of benefactors highlighted in this special issue of NJIT Magazine.” I am both humbled and inspired by the truth of that statement again this year. NJIT’s benefactors stepped forward in 2020 to ensure that our talented and determined students continued to have access to world-class faculty, cutting-edge academic and research programs and state-of-the-art facilities.

With gratitude,
<table>
<thead>
<tr>
<th>Year</th>
<th>Society/Club</th>
<th>Donor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1951</td>
<td>President’s Circle</td>
<td>William A. Kaepernik Sr. ’52*</td>
</tr>
<tr>
<td>1954</td>
<td>Annual Fellow</td>
<td>Edward W. Rogers ’52</td>
</tr>
<tr>
<td>1955</td>
<td>Eberhardt Society</td>
<td>Joseph A. Masino ’52</td>
</tr>
<tr>
<td>1957</td>
<td>Eberhardt Society</td>
<td>John B. Mandle ’52</td>
</tr>
<tr>
<td>1959</td>
<td>Founders’ Club</td>
<td>President’s Circle, Weston Society</td>
</tr>
<tr>
<td>1962</td>
<td>President’s Circle</td>
<td>Lawrence Levin ’58, Heather M. Maslin ’59</td>
</tr>
<tr>
<td>1965</td>
<td>Founders’ Club</td>
<td>Robert D. Ryenor ’62, Arthur D. Siegel ’62</td>
</tr>
<tr>
<td>1966</td>
<td>Founders’ Club</td>
<td>President’s Circle, Weston Society</td>
</tr>
<tr>
<td>1967</td>
<td>President’s Circle</td>
<td>Lawrence Levin ’58, Heather M. Maslin ’59</td>
</tr>
<tr>
<td>1970</td>
<td>Founders’ Club</td>
<td>Robert D. Ryenor ’62, Arthur D. Siegel ’62</td>
</tr>
<tr>
<td>1972</td>
<td>President’s Circle</td>
<td>Lawrence Levin ’58, Heather M. Maslin ’59</td>
</tr>
<tr>
<td>1975</td>
<td>Founders’ Club</td>
<td>Robert D. Ryenor ’62, Arthur D. Siegel ’62</td>
</tr>
<tr>
<td>1976</td>
<td>President’s Circle</td>
<td>Lawrence Levin ’58, Heather M. Maslin ’59</td>
</tr>
<tr>
<td>1979</td>
<td>Founders’ Club</td>
<td>Robert D. Ryenor ’62, Arthur D. Siegel ’62</td>
</tr>
<tr>
<td>1980</td>
<td>President’s Circle</td>
<td>Lawrence Levin ’58, Heather M. Maslin ’59</td>
</tr>
<tr>
<td>1982</td>
<td>Founders’ Club</td>
<td>Robert D. Ryenor ’62, Arthur D. Siegel ’62</td>
</tr>
<tr>
<td>1983</td>
<td>President’s Circle</td>
<td>Lawrence Levin ’58, Heather M. Maslin ’59</td>
</tr>
</tbody>
</table>

The Leadership Circle includes the Eberhardt Society – $25,000 or more, Weston Society – $10,000 to $24,999, Founders’ Club – $5,000 to $9,999, and President’s Circle – $1,000 to $4,999.
The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The President’s Circle

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2102.
The Colton Society, NJIT’s newest recognition society for donors making lifetime gifts totaling $500,000 or more to the university, was established in 2020. A virtual celebration was held October 29, 2020, since January 27 and Perrey DeHaas (right), two inaugural members of NJIT’s Colton Society, provided welcoming remarks to the 63 members of the society's first class of inductees.

The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

*deceased

The Colton Society includes the Everharder Society — $25,000 or more; Western Society — $10,000 to $24,999; Founders’ Club — $5,000 to $9,999; Annual Fellow — $1,000 to $4,999; and Donors — up to $999.
The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.
The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The Leadership Circle, included in the Endowment Report, is sponsored by the School of Business. It is a way to celebrate individuals and organizations that have made significant contributions to the University. Individuals and organizations are recognized based on the amount of their annual gifts, with categories ranging from $500 to $999, $100 to $499, up to $99.

For additional information, please contact Development Communications at development.communications@uark.edu.
The contributions in this report were received by the university between January 1, 2020 and December 31, 2020.

The Leadership Circle comprises individuals who have given $1,000 to $4,999. The Highlander Society welcomes recent alumni into the Leadership Circle based on a special gift and their class year.

In addition to the Leadership Circle, gifts are recognized at the Dean’s Club – $500 to $999, Annual Fellow – $100 to $499 and Donors – up to $99.

The Highlander Society comprises individuals who have given $10,000 or more. Donors are recognized on the donor list at the Highlander Society level – $10,000 or more.

The Donors’ Circle comprises individuals who have given $5,000 to $9,999. Donors are recognized on the donor list at the Donors’ Circle level – $5,000 to $9,999.

The Alumni Foundation Society comprises individuals who have given $1,000 or more. Donors are recognized on the donor list at the Alumni Foundation Society level – $1,000 or more.

The Philanthropist’s Circle comprises individuals who have given $25,000 or more. Donors are recognized on the donor list at the Philanthropist’s Circle level – $25,000 or more.

The President’s Circle comprises individuals who have given $100,000 or more. Donors are recognized on the donor list at the President’s Circle level – $100,000 or more.

NYIT FONATION DONORS 2020
GIFTS IN HONOR AND MEMORY

Gifts received in memory of Arnold Allentuch
Harrat Allentuch

Gifts received in honor of Alpha Sigma Phi and Alpha Kappa Psi
J’Ream L. Lewis

Gifts received in memory of Diosa Alvarado
Rosdy J. Alvarado

Gifts received in memory of Robert C. Ambati ‘68
Rames H. Ambati

Gifts received in memory of Ahtan Alay ‘68
Yupina Inc.

Gifts received in memory of Agnes Azara
Paula Harris

Gifts received in memory of Pamela Bakas
Bennjamin P. Bakas ‘03

Gifts received in honor of Paul T. Bakas
Joann A. Cavin
Nicholas H. Georgiades
George D. Von Wernher

Gifts received in honor of Robert W. Baumgarten
Joan B. Baumgarten

Gifts received in memory of Nelly B. Britto
Vinayashree Divakar

Gifts received in memory of Sarah Buchacz ‘98
William N. Buchala

Gifts received in memory of Perpetual Mrs. George D. von Wernher
Whitney Roth
Kirk Rowan
Mylène Roudil
Matthew Rueter

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin

Gifts received in memory of Ann and Vincent McGuckin
Terry A. McGuckin
For information on becoming a member of the 1881 Society, please contact Beth Kornstein, Associate Vice President of Planned Giving, at 973-596-8548.

NJIT’s planned giving benefactors play a very special role in supporting the university’s growth and momentum. Individuals who make gifts in the form of:  

George Conklin ’51*  
Myrtle* and Frank ’33* Clark  
June* and George ’59*  
Robert R. Ceres ’20*  
Raymond A. Cassetta ’70  
Raymond F. Carulli ’73  
William J. Carew ’32*  
Victor J. Cantlupe ’30*  
Hugh J. Bennett ’53*  
Florence M. Bauder*  
Stanley M. Baraukas ’61  
Barbara* and Joseph T.  
Grace C.* and John H. ’44*  
William M. Creelman ’58  
Bastian Bailey ’37*  
Auld Arndt ’36, ’74, ’87 HON*  
John Haywood  
George Gimbel, Jr. ’38*  
Michael J. Furman ’70*  
Stewart S. Fritts ’33, ’36*  
Walter Fabisiak ’71 , ’74  
Margaret Ellis ’34*  
Ruth and Harry C. ’50, ’57  
Rudolph A. Dehn ’41*  
Albert E. Day ’34*  
Edwina* and Harvey ’49*  
Diana L. Hoenig ’85*  
Michele Hickey ’14  
Joseph L. Smolenski ’82  
Joan D.* and Robert W.*  
Martha Van Houten*  
Margaret M.* and J. Elton  
Syril* and Leonard Rubin  
Robert A. Bosi ’62  
Bob Miller ’06  
Ann M. Rubino ’88  
Paul A. Baby ’70  
Helmuth C. Rudolph ’33  
Virginia D. George ’63  
Ryan ‘75  
Helen F. Werner  
Arthur E. Vasco ’37  
Jack Wagner ’74  
John C. Wannier ’71  
Elizabeth and Charles E. ’53, ’55  
Wallace Xanthos*  
William D. Winder ’80  
Nancy A. Wieland ’75  
Robert J. Wirtz  
Edward S. Wilder ’46*  
Victor Linder ’53*  
Robert F. Schwarzwalder ’29*  
Paul E. Schwartz ’38*  
Helen H. Schnack*  
Alison B. and Steven B. ’84  
Donald Ryan*  
Eric F. Ruzicka ‘54*  
Donald T. Groseclose, AIA  
T & M Associates  
Cornerstone Architectural Contracting  
Schenck Partners  
Sears Foundation  
National Association of Manufacturers  
F. L. Santangelo  
Columbia Bank  
BancorpNorth  
M&T Bank  
Bocina Family Foundation  
AMC Seneca  
Empire State Savings Bank  
LaSalle Bank  
PNC  
Fayetteville Bank  
Columbian Foundation  
Columbia Foundation  
Columbia Foundation  
Columbian Foundation  
Columbia Foundation  
Columbia Foundation  
Columbia Foundation  
Columbia Foundation
when a frail, elderly woman refused help at the FEMA-run vaccination site in NJIT’s Naimoli Center, Rita Vought ’21 knew just what to do. She asked over, struck up a conversation and subtly navigated her through the process, from registration to departure. “She didn’t realize she was being helped, because we were talking the entire time,” recounted Vought, a biology student heading to medical school next fall, and “I told her, instead of thinking about fears, to think about her moments they arrived. So fewer than 20 students assisted each day from 7 a.m. to 8 p.m. — managing the line outside, taking temperatures and registering people and answering their questions, and pushing wheelchair users through the cavernous facility, FEMA’s largest in the state. Collectively, they spoke nearly 20 different languages, including Bengali, Arabic, Russian, Portuguese and Tagalog, that were displayed on their name tags. “The students did a really good job calming people down, particularly those in wheelchairs and those who are nervous, the volunteers stayed by their side for the entire three-hour shifts at the facility.”

New to the business of pandemic-scale vaccination administration, FEMA calls each of its mega-sites around the country a pilot from which it learns incrementally. What distinguished the NJIT location, officials said, was the brigade of students who not only helped run it, but presented a bright, can-do face to the public from the moment they arrived. “Chang Yaramothu ’13, ’14, ’17, an assistant professor of applied engineering and technology at NJIT and adviser to the campus first-aid squad he helped found, called FEMA in March to propose setting up a vaccination site in Newark. “This was a wonderful opportunity no class could offer,” noted Chang, now an emergency management specialist for FEMA’s voluntary agency liaison at the Newark site. “In some cases, with people in wheelchairs and those who are nervous, you need to love before going into the process, from registration to departure.”

When the students did a really good job calming people down, particularly those in wheelchairs and those who are nervous, the volunteers stayed by their side for the entire three-hour shifts at the facility. “She didn’t realize she was being helped, because we were talking the entire time,” recounted Vought, a biology student heading to medical school next fall, and told her, instead of thinking about fears, to think about her

The students did a really good job calming people down, particularly those in wheelchairs and those who are nervous, the volunteers stayed by their side for the entire three-hour shifts at the facility. “She didn’t realize she was being helped, because we were talking the entire time,” recounted Vought, a biology student heading to medical school next fall, and “I told her, instead of thinking about fears, to think about her
BUILD YOUR CAREER THE EASY WAY.

Find jobs for alumni, from alumni on the **HIGHLANDERNATION.ORG** job board.

It’s who you know.

[hIGHLANDERNATION.ORG](http://hIGHLANDERNATION.ORG) Join today!